

MACQUARIE
UNIVERSITY



FACULTY OF
BUSINESS AND ECONOMICS

Unit Code: DEM127
**Unit Name: Demographic
Fundamentals**

First Semester, 2011

Department of Marketing and Management

**MACQUARIE UNIVERSITY
FACULTY OF BUSINESS AND ECONOMICS
UNIT GUIDE**

Year and Semester: 2011 Semester 1

Unit convenor: Dr. Fei Guo

[Prerequisites / Corequisites:] None.

Students in this unit should read this unit outline carefully at the start of semester. It contains important information about the unit. If anything in it is unclear, please consult one of the teaching staff in the unit.

ABOUT THIS UNIT

About Demography

Demography is the study of the changing size and composition of human populations, and the causes and consequences of such change. This subject will be useful not only to those with an interest in learning about population change it will also provide knowledge and skills which will be valuable to those aiming to pursue study or careers in marketing, market research, economics, statistics, health, business and many other areas. The size and composition of markets, electorates, public service clienteles and the labour force all are related to demography. Because of this, demographic analysis can assist planning marketing campaigns, retail site locations, electoral campaign strategies and public sector resource allocation decisions, such as where to build schools and hospitals.

Credit Points for this Unit: 3

The Rationale and Objectives of the Unit

This unit will introduce students to the study of demography and provide a platform of knowledge and skills for further studies in this field. The main objective is to introduce students to the analysis of changes in population size and composition. The patterns of fertility, mortality and migration in Australia and other countries will be described, and their implications for population size and composition outlined. The main sources of demographic data and the main techniques for analysing population change will be introduced. Practical applications of demography in the public sector and the private sector will be discussed.

In addition to developing a knowledge of the basic elements of demography, the unit will assist students in developing skills in note-taking, accessing and analysing data, problem solving and critical thinking.

TEACHING STAFF

Name	Task	Room	Phone No.	Email
Dr. Fei Guo	Convenor	E4A-627	9850 8445	fei.guo@mq.edu.au
Dr Salut Muhidin	Lecturer	E4A-624	9850 4848	salut.muhidin@mq.edu.au
Mr. Junhua Chen	Tutor			Junhua.chen@mq.edu.au
Miss Sheruni Karunaratne	Tutor			k.sheruni@gmail.com

CONSULTATION HOURS

Both the Convenor and most of the tutors will be operating consultation hours. Students are most welcome to visit the staff (irrespective of whether or not the person is your tutor) during these consultation hours. The Convenor's consultation hours are given below. Consultations with the tutors will be held in Room E4B104 at the times given in the table below.

If you cannot make his scheduled consultation hours you are still welcome to visit the Convenor at other times. However, since there is no guarantee that he will be available outside the hours below, phoning or emailing to make an appointment would be advisable. Students may also email enquiries to the Convenor.

Name	Scheduled Consultation Hours
Dr. Fei Guo	Monday 1pm – 3pm in Room E4A-627
Dr. Salut Muhidin	Monday 11am – 1pm in Room E4A-624
Jun Hua (Carlson) Chen	Monday 4pm-5pm in Room E4B104

CLASSES

For each student there will be 3 hours face-to-face teaching per week consisting of two one-hour lecture and one one-hour tutorial. Each student should attend the scheduled lecture on Monday and Wednesday and one of the scheduled tutorials per week.

The timetable for classes can be found on the University web site at:

<http://www.timetables.mq.edu.au/>

Day	Lecture/Tutorial	Start	End	Room
Monday	Lecture 01	15:05	15:55	E7B T4
Monday	Lecture 02	17:05	17:55	W5A T2
Wednesday	Lecture 01	10:05	10:55	W5A T1
Wednesday	Lecture 02	12:05	12:55	W5A T2
Monday	Tutorial 01	14:05	14:55	W6B 338
Monday	Tutorial 02	15:05	15:55	W6B 338
Wednesday	Tutorial 03	12:05	12:55	W6B 315
Wednesday	Tutorial 04	13:05	13:55	X5B 039
Wednesday	Tutorial 05	14:05	14:55	X5B 039
Wednesday	Tutorial 06	14:05	14:55	C5A 404
Wednesday	Tutorial 07	15:05	15:55	X5B 039
Thursday	Tutorial 08	13:05	13:55	E5A 107

Please bring a calculator, lecture notes and the textbook to all tutorials. **Please note that there will be no tutorials in the first week of this semester.**

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Recommended Textbook

Rowland, Donald (2003) *Demographic Methods and Concepts*, Oxford University Press. The book is available for purchase from the Co-op Bookshop.

or

A.H. Pollard, Farhat Yusuf and G.N. Pollard, *Demographic Techniques* (third edition, 1990). This text is currently out of print. However, copies of the sections relevant to this unit (Chapters 1-6 and 8) have been placed, with the authors' permission, on the Macquarie University library e-reserve page <http://www.lib.mq.edu.au/reserve/>

Other Useful Sources of Information

Khoo, S.E. and McDonald, P. (2003) *The Transformation of Australia's Population 1970-2030*. UNSW Press. Chapters 2-6 and 8 provide a useful material for several of the substantively-based topics. This reference can be viewed as an e-book via the library e-reserve page <http://www.lib.mq.edu.au/reserve/>

Parr, N.J. and Farhat Yusuf *A Workbooklet in the Elements of Demography* (available via the DEM127 webpage or from the library e-reserve webpage <http://www.lib.mq.edu.au/reserve/>) includes many data analytic exercises that should help students to prepare for tutorials, class tests and the final examination.

A list of other useful references may be accessed from the DEM127 page on the Macquarie University Online Learning@ MQ Facility <http://learn.mq.edu.au>

Overheads and Note-taking

Copies of a selection of the overheads shown in lectures will be made available via Online Learning @ MQ <http://learn.mq.edu.au>
Note that the overheads offer only a skeletal coverage of the topics covered in lectures that must be augmented by additional note-taking during the lecture or using the recommended references. Please also note that only some of the overheads shown in lectures are available (eg. ones with key formulae or definitions or with tables of data that would be too lengthy to copy down during a lecture).

UNIT WEB PAGE

Students may access unit material online through the Macquarie University Online Learning Facility <http://learn.mq.edu.au> using your Student ID Number and your Online Learning @ MQ password. A link to this facility, along with a limited range of other course materials, is also available via

http://www.bus.mq.edu.au/undergraduate/units/DEM_units/dem127_elements_of_demography

Information about the Demography Program is at:

http://www.businessandconomics.mq.edu.au/undergraduate_degrees/business_economics_degrees_by_name/demography

iLectures

Lectures will be recorded using the iLectures system. Whilst the iLectures may provide an additional resource, students are advised that no guarantees are given in relation to the availability or quality of the sound recordings or the functioning of any related websites or links to files of recordings of lectures. Students are expected to attend the lectures on a regular basis and to compile notes during the course of the lectures. Thus any failing of the iLectures will not be accepted as grounds for appeal.

LEARNING OBJECTIVES AND OUTCOMES

The learning objectives of this unit are:

- Developing a knowledge of basic demographic concepts;
- Developing a knowledge of the sources of demographic data;
- Developing an ability to learn, use and understand basic demographic techniques;
- Developing a knowledge and an understanding of changes in population size and composition in Australia and in other regions of the World;
- Developing a knowledge and an understanding of the patterns of fertility, mortality and migration in Australia;
- Developing a knowledge and a sense of the importance of the uses of demography in public and private sectors; and
- Developing an ability to compile and use notes.

The learning outcomes of this unit are:

1. Demonstrating an ability to define and explain basic demographic concepts;
2. Demonstrating an awareness of the ranges of demographic data which may be obtained from the main sources and of the strengths and limitations of such data through writing short essays and answering short answer questions;
3. Demonstrating an ability to use basic demographic techniques to calculate demographic measures and to interpret the results of such calculations (this is a particularly important assessment criteria);
4. Demonstrating a knowledge and an understanding of the patterns of change in the population size and composition in Australia and in other regions of the World through writing short essays and answering short answer questions;

5. Demonstrating a knowledge and an understanding of the patterns of fertility, mortality and migration in Australia through data analysis using demographic techniques, writing short essays and answering short answer questions;
6. Developing a knowledge and a sense of the importance of the uses of demography in public and private sectors through writing short essays;
7. Demonstrating an ability to compile notes and to use them by writing short essays on relevant demographic topics under examination conditions.

GRADUATE CAPABILITIES

Students who graduate from this unit will achieve the following capabilities:

1. Ability to identify the key terms in demography
2. Ability to identify the key sources of demographic data and their strengths and limitations
3. Able to calculate and interpret the key measures used in demography
4. Competency in discussing the key theories and research in demography
5. Ability to determine the interrelationships between the size and composition of the population and fertility, mortality, and migration
6. Competency in preparing projections of future populations
7. Ability to analyse the effects of the size, composition and change of populations on consumption patterns, government expenditure, labour supply and the environment
8. Competency in discussing the implications of demographic trends for business and government decision-making

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop students' generic cognitive capabilities, interpersonal or social capabilities, and personal capabilities. One of the aims of this unit is that students will enhance their:

critical, analytical and integrative thinking;
problem solving and research capability;
effective communication;
capabilities to be engaged and ethical local and global citizens;
capabilities to be socially and environmentally active and responsible;
capabilities for professional and personal judgement and Initiative ;
commitment to continuous learning.

TEACHING AND LEARNING STRATEGY

The teaching strategy consists of the provision of information in the weekly lectures on Thursdays and one specified weekly tutorial. Copies of overhead slides for each topic will be provided via Online Learning @ MQ. It is recommended students print a copy of the slides beforehand and bring it to the lecture. It is expected that students will attend the lectures and tutorials on a regular basis and will take additional notes during the lectures.

In addition to the time spent attending lectures and tutorials and doing assignments, each student is expected to spend a significant amount of time preparing for lectures and tutorials, updating lecture notes, learning the key formulae, attempting exercises

from the textbook and workbooklet, reading the demographic literature, and revising for tests and exams (12 hours per week is recommended). Students are encouraged to follow developments in the Australian population and the population debate which are reported in the media.

A week-by-week list of the topics covered is provided on the following page.

DEM127: DEMOGRAPHIC FUNDAMENTALS
SCHEDULE OF LECTURES
First Semester, 2011

Date	Topic	Lecturer	Tutorials & Assignments
Week 1 Monday 21 Feb. Wednesday 23 Feb.	Introduction to demography Sources of demographic data I	FG/SM FG/SM	No tutorial
Week 2 Monday 28 Feb. Wednesday 2 March	Sources of demographic data II Population pyramids	FG/SM FG/SM	Tutorial 1 Assignment 1 given in tute
Week 3 Monday 7 March Wednesday 9 March	Measures of the growth, size, and age-sex distributions of populations Crude and specific rates	FG/SM FG/SM	Tutorial 2
Week 4 Monday 14 March Wednesday 16 March	Computation of life tables I Computation of life Table II	FG/SM FG/SM	Tutorial 3 Assignment 1 due Assignment 2 given in tute
Week 5 Monday 21 March Wednesday 23 March	Uses of life tables Marriage and Family in Australia	FG/SM FG/SM	Tutorial 4
Week 6 Monday 28 March Wednesday 30 March	Measurement of Fertility Fertility trends & differentials in Australia	FG/SM FG/SM	Tutorial 5 Assignment 2 due Assignment 3 given in tute
Week 7 Monday 4 April Wednesday 6 April	Class Test No. 1 International Migration and Australia	FG/SM FG/SM	Tutorial 6 (optional)
Mid-Semester Teaching Break (11 April – 22 April)			
Week 8 Monday 25 April Wednesday 27 April	<i>Public Holiday–no lecture, no tutorial</i> Measurement of mortality & standardisation	FG/SM	Tutorial 7 Assignment 3 due Assignment 4 given in tute Class test 1 returned
Week 9 Monday 2 May Wednesday 4 May	Population projections I Population projections II	FG/SM FG/SM	Tutorial 8 Assignment 4 due Assignment 5 given in tute
Week 10 Monday 9 May Wednesday 11 May	Internal migration & population distribution in Australia World population growth	FG/SM FG/SM	Tutorial 9
Week 11 Monday 16 May Wednesday 18 May	Mortality trends & differentials in Australia Demography of Australia's Indigenous population.	FG/SM Guest	Tutorial 10 Assignment 5 due
Week 12 Monday 23 May Wednesday 25 May	Class Test No. 2 Uses of demography in the private sector	FG/SM FG/SM	Tutorial 11 (optional)
Week 13 Monday 30 May Wednesday 1 June	Uses of demography in the public sector Conclusion & unit evaluation	FG/SM FG/SM	Tutorial 12 Class test 2 returned

Lecturer: FG - Dr. Fei Guo; SM – Dr. Salut Muhidin

RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

Assessment Tasks

Student achievement of the learning outcomes listed in an earlier section will be assessed by five assignments, two class tests, and a final examination. The weighting given to the various assessment tasks will be:

Weighting of Assessment Tasks

Assignments (five in total)	15%
Class Test 1	10%
Class Test 2	15%
Final Exam	60%

In this unit there is no formal requirement for students to achieve a pass in the final examination in order to pass the unit. However a relatively poor performance in the final exam may adversely affect the assessment of marginal grades.

Attendance

Students are advised that a poor record of attendance in lectures and tutorials may adversely affect the grade awarded. Satisfactory attendance is 75% of the lectures and tutorials for which attendance is taken, and failure to achieve this attendance may adversely affect marginal grading decisions. Tutorial attendance in weeks 7 and 12 is optional, since some students may prefer to have private study time, as opposed to classroom study time, prior to the class tests. Attendance is expected and will be recorded at all the other tutorials. Tutors may refuse to mark the assignments of students who have an unsatisfactory record of attendance in tutorials or who have previously been late in submitting assignments (without satisfactory evidence of unavoidable disruption).

Alignment Between Assessment Tasks and Learning Objectives and Outcomes.

The five assignments are designed to help students to progress towards the learning outcomes through practising what they have learned in the lectures, assessing the quality of their understanding, and obtaining feedback which will further assist their learning. Major demographic concepts and techniques introduced in the lectures are incorporated into the five assignments. Students may collect Assignment 1, which will test your knowledge of some of the more basic techniques covered in the unit, before **31 March (the last date to withdraw without academic or financial penalty)**, thus providing you with an indication of your ability to handle the unit material before the census date.

Questions in the class tests and the final exam will include calculating and interpreting major demographic measures, explaining demographic concepts, and writing short essays/notes on certain demographic topics. The two class tests will include a section of multiple choice questions which will be used to assess students' knowledge and understanding of the basic demographic concepts, structures and trends. All questions are designed to assess students' learning outcomes listed in the above section.

	Assessment Task 1	Assessment Task 2	Assessment Task 3
Title/Name	Assignments	Class Tests	Final Exam
Description (including length or similar if applicable)	Five assignments each on one specific technical topics	Two class tests, each one hour in duration	A three-hour final exam
Due date	As specified in the schedule of lectures	Week 7 and week 12	University exam period
% Weighting	15%	25%	60%
Grading method - marking criteria/ standards - expectations in relation to presentation - referencing requirements	Use correct concepts and techniques in calculating and interpreting specific demographic measures and discussing demographic trends/differentials	Correctly identify/use/discuss the key terms/concepts; using correct techniques in calculating the key measures; correctly analyse factors effecting demographic changes/differentials	Correctly identify/use/discuss the key terms/concepts; using correct techniques in calculating the key measures; correctly analyse factors effecting demographic changes/differentials
Submission method	Submit to tutor at tutorial times	Submit to lecturer in class	Submit to exam supervisor
Feedback (type, method, date)	Written feedback to individual students and group feedback on Blackboard after assignments are returned	Feedback given in week 8 and week 13.	Available upon students' request as part of grade appeal process
Estimated student workload (hours)	Three to Five hours for each assignment	Five to eight hours preparation for each class test	Eight to sixteen hours preparation for the final exam
Learning outcomes assessed			
1	X	X	X
2	X	X	X
3	X	X	X
4	X	X	X
5	X	X	X
6		X	X
7		X	X
Graduate capabilities assessed			
1	X	X	X
2		X	X
3	X	X	X
4		X	X
5	X	X	X
6	X	X	X

	Assessment Task 1	Assessment Task 2	Assessment Task 3
7	X	X	X
8	X	X	X

Criteria and Standards Against Which Individual Assessment Tasks Are Judged

The assignments generally incorporate multiple question parts. The maximum marks available for each part will be indicated on the assignment sheets. Where a question part involves calculations, the marks awarded will reflect whether the answers are correct, whether the units of measurement are stated clearly, and whether an outline of the method used to derive the answers is presented clearly. Where a question part involves the description, interpretation or discussion of the determinants of the results of calculations or the data provided, the assessment will reflect the coverage of the results and data provided, the understanding of the strengths and limitations of measures which is demonstrated, and the knowledge of the determinants of the demographic variables (whether derived from lectures, through reading the literature, or through logical deduction) which is evident. Expression with unclear meaning may detract from the mark awarded. An innovative use of additional summary measures or graphs may attract a small amount of additional credit. All assignments are intended to be undertaken independently and individually by students and students who collude excessively or plagiarise will incur penalties for doing so.

The class tests will also incorporate multiple parts. The maximum marks available for each part will be indicated on the test papers. Where a question part involves calculations the marks awarded will reflect whether the answers are correct, whether the units of measurement are stated clearly, and whether an outline of the method used to derive the answers is presented clearly. Questions requiring statements of definition or explanation will be marked according to whether the required statements are made fully, correctly, and clearly. Multiple choice questions will be marked according to whether the unique, correct answer is indicated clearly. Students who miss a class test due to unavoidable disruption are advised to contact the Convenor at the earliest possible opportunity. In such cases, provided suitable documentation of the unavoidable disruption is provided to the convenor and attendance in lectures and tutorials outside periods of documented unavoidable disruption has been satisfactory, the other class test or examination components may be weighted up (with scaling to ensure comparability in the marks). If suitable documentation is not provided or attendance is unsatisfactory then a mark of zero will be recorded for the missed class test.

The final examination will involve multiple questions. Some of these questions will be marked according to the criteria and standards outlined in relation to the assignments. There will also be a question which will assess students' ability to demonstrate they can write notes on relevant demographic topics and one requiring short written answers. The marking of the "writing notes" question will reflect primarily the content knowledge which is demonstrated. Written communication skills and academic discourse skills which are demonstrated may also affect the mark awarded.

Distribution of and Due Dates for the Submission of Assignments

Details of the dates for distribution of and submission of assignments are presented on the schedule of lectures. Copies of the assignments should also be available from the unit online learning page

The due dates and times for the submission of assignments will be the dates and times of the tutorials. All assignments should be submitted to your tutor at the tutorial. All assignments submitted should have a cover sheet which clearly states the student's name, ID number, the name and code of the unit, the tutor's name, and the number and date of submission of the assignment. Penalties will be incurred for the late submission of assignments, unless satisfactory evidence of unavoidable disruption is presented.

The Form and Timing of Feedback on Assignments and Class Tests

Assignments together with the marks awarded will be returned to the students promptly (generally within two weeks of submission). Model solutions to the various assignments, together with feedback on some of the more common errors made by the group of students as a whole will be provided on the online learning facility after all assignments have been returned. Students are advised to compare their solutions to the model solutions to identify and to learn from any errors they have made. The class tests also will be returned to the students. Feedback will be provided either in the form of discussion of the solutions in tutorials or through the provision of model solutions via online learning.

Final Examination

A 3 hour final examination for this unit will be held during the University Examination period. The rationale for setting the exam is that it will provide a rigorous and comprehensive assessment of students' achievement of the learning outcomes. Students will be permitted to use a small non-programmable calculator in the class tests and exam, provided it does not have a text-returnable capacity. Dictionaries are not allowed in class tests and exam.

The University Examination period in the First Half Year 2011 is from 6 June to 24 June. You are expected to present yourself for examination at the time and place designated in the University Examination Timetable. The timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations.

<http://www.timetables.mq.edu.au/exam>

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. The University's policy on special consideration process is available at

http://www.mq.edu.au/policy/docs/special_consideration/policy.html

If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period.

The Macquarie university examination policy details the principles and conduct of examinations at the University. The policy is available at:

<http://www.mq.edu.au/policy/docs/examination/policy.htm>

PLAGIARISM

The University defines plagiarism in its rules: "Plagiarism involves using the work of another person and presenting it as one's own." Plagiarism is a serious breach of the University's rules and carries significant penalties. You must read the University's practices and procedures on plagiarism. These can be found in the *Handbook of Undergraduate Studies* or on the web at: <http://www.student.mq.edu.au/plagiarism/>

The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

ACADEMIC HONESTY

The nature of scholarly endeavour, dependent as it is on the work of others, binds all members of the University community to abide by the principles of academic honesty. Its fundamental principle is that all staff and students act with integrity in the creation, development, application and use of ideas and information. This means that:

- all academic work claimed as original is the work of the author making the claim
- all academic collaborations are acknowledged
- academic work is not falsified in any way
- when the ideas of others are used, these ideas are acknowledged appropriately.

Further information on the academic honesty can be found in the Macquarie University Academic Honesty Policy at http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

GRADES

Macquarie University uses the following grades in coursework units of study:

HD - High Distinction
D - Distinction
CR - Credit
P - Pass
F - Fail

Grade descriptors and other information concerning grading are contained in the Macquarie University Grading Policy which is available at: <http://www.mq.edu.au/policy/docs/grading/policy.html>

GRADING APPEALS AND FINAL EXAMINATION SCRIPT VIEWING

If, at the conclusion of the unit, you have performed below expectations, and are considering lodging an appeal of grade and/or viewing your final exam script please refer to the following website which provides information about these processes and the

cut off dates in the first instance. Please read the instructions provided concerning what constitutes a valid grounds for appeal before appealing your grade.

http://www.businessandconomics.mq.edu.au/for/new_and_current_students/undergraduate/admin_central/grade_appeals.

SPECIAL CONSIDERATION

The University is committed to equity and fairness in all aspects of its learning and teaching. In stating this commitment, the University recognises that there may be circumstances where a student is prevented by unavoidable disruption from performing in accordance with their ability. A special consideration policy exists to support students who experience serious and unavoidable disruption such that they do not reach their usual demonstrated performance level. The policy is available at:

http://www.mq.edu.au/policy/docs/special_consideration/procedure.html

STUDENT SUPPORT SERVICES

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at <http://www.student.mq.edu.au>.

Information about student support services is also available from the Business and Economics Student Services (BESS) office in E4B106 and via http://www.businessandconomics.mq.edu.au/current_students/ug

IT CONDITIONS OF USE

Access to all student computing facilities within the Faculty of Business and Economics is restricted to authorised coursework for approved units. Student ID cards must be displayed in the locations provided at all times.

Students are expected to act responsibly when utilising University IT facilities. The following regulations apply to the use of computing facilities and online services:

- Accessing inappropriate web sites or downloading inappropriate material is not permitted. Material that is not related to coursework for approved unit is deemed inappropriate.
- Downloading copyright material without permission from the copyright owner is illegal, and strictly prohibited. Students detected undertaking such activities will face disciplinary action, which may result in criminal proceedings.

Non-compliance with these conditions may result in disciplinary action without further notice.

Students must use their Macquarie University email addresses to communicate with staff as it is University policy that the University issued email account is used for official University communication.