

University of Illinois at Urbana-Champaign
College of Liberal Arts & Sciences
Department of Economics
Fall 2022

ECON 455: Economics of Poverty Alleviation in Developing Countries
Monday and Wednesday 12:30 pm – 1:50 pm
333 Armory (Sometimes Zoom)

Instructor: Prof. Adam Osman

Office: Osman: 109 David Kinley Hall

E-mail: aosman@illinois.edu Please include “Econ 455” at the start of the email subject to make sure I don’t overlook your email.

Office Hours Prof. Osman: Monday/Wednesday 3:30-5pm or by appointment

Anonymous Feedback: <http://bit.do/EconFeedback>

Course Description:

This class will study what works, what does not, and why, in the fight against poverty in developing countries. The course will have a strong methodological and analytical component, specifically focusing on articulating the why behind interventions and policies, and the how behind establishing evidence on the effectiveness of specific interventions and policies. The class will also discuss some fundamentals of behavioral economics, and learn how and when to apply such ideas to policy and program design. The course will focus on interventions and policies that apply to households, small firms, and farms, with particular but not exclusive focus on four sectors: microfinance, health, agriculture and education.

Course Format: Combined lecture and discussion every Monday and Wednesday 11:00 am – 12:20 pm

Learning Resources:

Most of the material for the course can be found on the lecture slides that will be made available on compass. While the slides provide an outline of everything that is important, they are not exhaustive, and so it is important to come to class to hear the details regarding what the slides allude to.

All of the academic studies we will cover in class are referenced below and can be found at the corresponding links in the syllabus or, if the links are not working, through a simple search through google scholar.

Supplemental (not required) Texts:

1. *Running Randomized Evaluations: A Practical Guide (RRE)*, by Glennerster and Takavarasha
2. *Good Economics for Hard Times (GEHT)*, by Banerjee and Duflo
3. *Poor Economics (PE)*, by Banerjee and Duflo
4. *More Than Good Intentions (MTGI)*, by Karlan and Appel

Student Assessment:

<u>Assessment Activity</u>	<u>Activity Value</u>
Dream Policy Changes	3 Points
NGO Critique	4 Points
Problem Set	7 Points
3 Academic Paper Summaries	3x2=6 Points
3 Data Replication Exercises	3x5=15 Points
Midterm Exam	15 Points
Dream Policy Critique	5 Points
Presentation	10 Points
Final Exam	25 Points
Class Participation	10 Points
Total	100 Points

Assessment Activity Details:

Dream Policy Changes (2-3 Pages):

- Generate a short document that outlines one of your main policy interests in the economics of poverty alleviation and what you think could be done to improve societal outcomes related to that topic. In other words, what do you think the world is doing wrong when it comes to helping the poor and if you had the ability to change one policy what would you change and why? In particular, focus on either a specific government policy (e.g. Food Stamps, Subsidizing Student Loans, Closed Borders, etc) or a specific Non-Governmental Organization's activity (e.g. giving the poor cows, building schools in rural villages, etc.) and describe what you think is wrong with the way these things are currently being implemented and how you would fix it. (Note: This is a personal benchmarking assignment. Its aim is to get you to write down your current thoughts on poverty and what you would change given your current state of knowledge. There are no wrong answers.)

NGO Evaluation Critique (2-4 pages):

- An analysis of any evaluation (or statements about supposed impact) of an intervention you find on the website of an NGO or social enterprise. Explain the intervention, the evaluation approach and results (including any information or data they use to support the claims of impact), the strengths and weaknesses of the evaluation, and how you would improve their evaluation process if you had an unconstrained evaluation budget/sample.

Make sure to include a link to the NGO's website.

Examples of the types of websites/reports that could be used for the assignment (you may not use one of the following however):

- One Acre Fund: <https://www.oneacrefund.org/results/impact>
- Against Malaria Foundation: <https://www.againstmalaria.com/Transparency>.
- FINCA International: <http://www.finca.org/our-impact/>

Problem Set:

- Standard problem set walking through the basic econometrics and statistics techniques used in rigorous program evaluation.

Academic Paper Summaries:

- Academic Paper Summary (2-3 Pages): A review of an academic paper that estimates the impact of a development program or policy. The review should clearly explain the program or policy being evaluated, the market failure that it is addressing, the method of evaluation and basic details about the data being used, the impacts that were found, and what an NGO or government that is considering doing something similar should learn from this paper and what limitations the study has.

The first two summaries should be from the list of eligible papers below. The second two summaries can be any paper we don't cover in class but the paper must have been published in one of the following journals after the year 2015:

- American Economic Review
- Quarterly Journal of Economics
- Journal of Political Economy
- Econometrica
- Review of Economic Studies
- Review of Economics and Statistics
- American Economic Journal: Applied Economics or AEJ: Economic Policy
- Journal of the European Economic Association
- Economic Journal
- Journal of Development Economics
- Economic Development and Cultural Change
- World Bank Economic Review
- Recent Working Paper (at least 2015) from the National Bureau of Economic Research

Eligible Papers:

- Behavioral Savings: Karlan, Dean, et al. "Getting to the top of mind: How reminders increase saving." *Management Science* 62.12 (2016): 3393-3411.
- Credit: Augsburg, Britta, et al. "The impacts of microcredit: Evidence from Bosnia and Herzegovina." *American Economic Journal: Applied Economics* 7.1 (2015): 183-203.
- Health – Worms: Miguel, Edward, and Michael Kremer. "Worms: identifying impacts on education and health in the presence of treatment externalities." *Econometrica* 72.1 (2004): 159-217.
- Health – Bednets: Cohen, Jessica, and Pascaline Dupas. "Free distribution or cost-sharing? Evidence from a randomized malaria prevention experiment." *The Quarterly Journal of Economics* (2010): 1-45.
- International Trade: Atkin, David, Amit K. Khandelwal, and Adam Osman. "Exporting and firm performance: Evidence from a randomized experiment." *The Quarterly Journal of Economics* 132.2 (2017): 551-615.
- Labor Markets: Crépon, Bruno, et al. "Do labor market policies have displacement effects? Evidence from a clustered randomized experiment." *The Quarterly Journal of Economics* 128.2 (2013): 531-580.
- Entrepreneurship: McKenzie & Puerro "Growing Markets through Business Training for Female Entrepreneurs: A market-level randomized experiment in Kenya" Working Paper 2018 (<https://drive.google.com/file/d/1ZVvecwJIUSNQ02KmUr3SMdYurFnSwxUu7/view>)
- Education: De Ree, Joppe, et al. "Double for nothing? The Effect of Unconditional Teachers' Salary Increases on Performance." *The Quarterly Journal of Economics* (2015).

Data Replications:

Assignment 1:

Use the dataset (saved in csv format) uploaded to canvas, create an R script that accomplishes the following tasks. Note that survey round 1 is the baseline and survey round 2 is the follow up.

- a. Import the data into R.
- b. Generate a table of summary statistics for the following variables including the mean, standard deviation and number of observations for each variable at baseline. Variables: (1) Age, (2) Female, (3) Current Employment, (4) Current Income, (5) Preparatory Education or less (this includes those with preparatory, primary, literacy certificate and illiterate levels of education), (6) University Graduate and above

Assignment 2:

- c. Generate a table checking the statistical balance between the treatment group and control group for the variables included above in the baseline round. The table should include balance tests for each variable by itself as well as a test of all variables as a group.
 - d. Generate a table that reports the treatment effect (difference between treatment and control) on employment and monthly income in the follow up round.
 - e. Control for the baseline value of the two outcome variables listed in part “d” as well as dummies for each cohort and cluster the standard errors at the cohort level.
- Print out your tables in a clean looking way, join them together with your R code and your name and submit on canvas

Assignment 3:

This assignment uses data from this [paper](#). There are three required datasets (you will need to merge these datasets on the unique identifier - "key"): (1) Baseline Data; (2) Treatment Assignment; (3) Uber Utilization
Create an R script that accomplishes the following tasks:

- a. Generate a baseline balance table, separately for each treatment, similar to Table B1 on page A7 of the paper. Choose a few variables from that table, but also choose a few variables that are not in that table but are in the dataset that you think could be interesting to look at. (It's probably easiest to create new dummy variables for each treatment.)
- b. Generate a table that looks at the impact of the treatment on Uber usage. The Uber usage data is provided on a weekly basis, so in one regression look at the impacts on the average week. (Separately by each treatment.) Since this is weekly data you should cluster your standard errors at the individual level. Since it's an experiment you should include cohort fixed effects.
- c. In another set of regressions separate the impacts of the first 6 weeks from the impacts in the last 6 weeks.
- d. Recreate the regressions in part “b” but separated by a particular baseline characteristic of your choosing. For example, while the paper splits by gender maybe you can split by age, or education, or car ownership or anything else you want. You should do this in two separate regressions.
- e. Redo the previous regression (separated by a baseline characteristic), but as one regression with an interaction effect. (Interaction is treatment*the baseline characteristic)

Data Analysis Resources:

- https://cran.r-project.org/doc/contrib/Paradis-rdebuts_en.pdf
- <https://www.youtube.com/watch?v=IVKMsaWju8w>
- https://www.youtube.com/watch?v=_V8eKsto3Ug

Dream Policy Change Critique (4-6 Pages):

Return to your original “Dream Policy Change” assignment from the beginning of the semester. Review what you wrote and begin by re-writing the policy problem in the language of market failures that you learned as part of this class (1-2 page). Describe the different market failures that could have led to the problem you described and which market failures the policy you proposed addressed. If you still believe that your proposed policy change is the best way to improve societal outcomes in the realm of your original topic, describe how you would design an evaluation to test the effectiveness of the policy change you described (2-4 pages). If, on the other hand, you no longer believe that the policy change you described would be the best thing to do, describe what has changed in your understanding of this topic (1-3 pages) and what you would now suggest to do to improve policy around your original topic and why (1-2 pages), as well as how you would evaluate the new policy or program you are suggesting (1-2 pages).

Presentation:

Choose any NGO or social enterprise (but not the same one that you used for your assignments above) and focus on one intervention that they implement:

- a. Describe quickly the history and activities of the NGO. What do they do and why is it interesting?
- b. Choose one particular thing they are doing. Describe their theory of change behind that intervention. Why are they doing it? Summarize the theory of change of the NGO’s or social enterprise’s activity. Make sure to speak specifically about what the market failure is (if any) that the NGO purports to address.
- c. Describe what the entity currently claims about the impact of this program and what are the drawbacks of their evaluation method.
- d. Evaluation proposal: Design an evaluation of the NGO or social enterprise’s activity that you want to evaluate, how would you construct the counterfactual? How can you design the evaluation to include as much learning you can about why the program works (if it does) not merely whether it works.
- e. Response to concerns: Be prepared to respond to concerns the “NGO management” (in this case the professor and fellow students) might have about your evaluation.

Assessment Policies

Assignment Policy:

All assignments are to be turned in in physical copy or on Compass/Canvas (depending on professor instructions) by the deadline noted in the schedule. Late assignments receive no credit. The assignment portion of your grade will be the average of all your assignment scores weighted by the points as indicated in the syllabus above.

Exam Policy:

No materials are allowed during exams. There are to be no books, papers other than the exam itself, calculators or cell-phones or other items that connect to the internet. Students found to be using unapproved items are in violation of the Academic Integrity policy of the University and will be subject to disciplinary action.

The University’s final exam policy is available at:

http://studentcode.illinois.edu/article3_part2_3-201.html

Emergency Response Recommendations:

The university maintains guidelines for emergency responses. A list of recommendations when to evacuate and when to find shelter are available at:

http://illinois.edu/cms/2251/general_emergency_response_recommendations_8_16_13_final.docx

Floor plans for specific buildings are available at: <http://police.illinois.edu/emergencyplanning/floorplans/>

Statement on Accommodations:

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the

course instructor and the Disability Resources Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak Street, Champaign, call 333-4603 (V/TTY), or email a message to disability@uiuc.edu.

Academic Integrity:

“The University has the responsibility for maintaining academic integrity so as to protect the quality of education and research on our campus and to protect those who depend upon our integrity.

Expectations of Students. It is the responsibility of each student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions. Students have been given notice of this Part by virtue of its publication. Regardless of whether a student has actually read this Part, a student is charged with knowledge of it. Ignorance is not a defense.”

The University’s full academic integrity policy is available at:
http://studentcode.illinois.edu/article1_part4_1-401.html

Semester Schedule

Econ 455: Economics of Poverty Alleviation Fall 2022, Monday and Wednesday 12:30pm-1:50pm

Week	Day	Date	Lecture #	Lecture Title	Slide Deck	Assignment Due
1	Mon	22-Aug	1	Introduction	1	
	Wed	24-Aug	2	Market Failures	2	
2	Mon	29-Aug	3	<i>Causality & Evaluation</i>	3	<i>Dream Policy Changes</i>
	Wed	31-Aug	4	<i>Identification Strategies in Social Sciences</i>	3	
3	Mon	5-Sep		LABOR DAY		
	Wed	7-Sep	5	Experimental Designs and Threats	4	
4	Mon	12-Sep	6	Theory of Change	5	NGO Critique
	Wed	14-Sep	7	Probability and Statistics	6	
5	Mon	19-Sep	8	Power and Standard Errors	6	Academic Paper Summary 1
	Wed	21-Sep	9	Tables, Regressions and Interaction Effects	6	
6	Mon	26-Sep	10	<i>Savings: Market Failures</i>	7	<i>Problem Set</i>
	Wed	28-Sep	11	Savings: Impact	7	
7	Mon	3-Oct	12	Data Analysis and Statistical Coding	8	
	Wed	5-Oct	13	Behavioral Economics	9	Data Replication 1
8	Mon	10-Oct		Midterm review and Q&A		
	Wed	12-Oct		MIDTERM EXAM		MIDTERM EXAM
9	Mon	17-Oct	14	Credit: Market Failures	10	
	Wed	19-Oct	15	Credit: Impacts	10	
10	Mon	24-Oct	16	Scarcity & Fairness	11	Academic Paper Summary 2
	Wed	26-Oct	17	Data Analysis and Statistical Coding II	12	
11	Mon	31-Oct	18	Health	13	Data Replication 2
	Wed	2-Nov	19	Labor Markets	14	
12	Mon	7-Nov	20	Management	15	Academic Paper Summary 3
	Wed	9-Nov	21	International Trade	16	
13	Mon	14-Nov	22	Technology Adoption	17	Data Replication 3
	Wed	16-Nov	23	Education	18	
14	Mon	21-Nov		FALL BREAK		
	Wed	23-Nov		FALL BREAK		
15	Mon	28-Nov		Presentations		
	Wed	30-Nov		Presentations		
16	Mon	5-Dec		Presentations		
	Wed	7-Dec	24	Review for Final	19	Dream Policy Critique
				Finals Week		Final Exam

Reading List

<u>TOPIC</u>	<u>READING</u>
Introduction: Why Do We Act; Market Failures	<ol style="list-style-type: none"> 1. *MTGI, Chapter 1 2. *PE, Chapter 1 3. Easterly, William. "The Handouts that Feed Poverty." Los Angeles Times, April 30th 2006. 4. Sachs, Jeffrey D. "Foreign Aid Skeptics Thrive on Pessimism." Los Angeles Times, May 7th 2006. 5. Karlan, Dean. "Every Which Way We Can." IMF Finance & Development, 2012. 6. Singer, Peter. "The Drowning Child and the Expanding Circle." April 1997. 7. Banerjee, Abhijit and Esther Duflo. 2007. "Economic Lives of the Poor." Journal of Economic Perspectives, 21(1): 141-167. 8. Besley, Timothy and Robin Burgess. 2003. "Halving Global Poverty." Journal of Economic Perspectives, 17(3): 3-22. 9. Anagol, Santosh, Alvin Etang and Dean Karlan Continued Existence of Cows Disproves Central Tenets of Capitalism? (2013), working paper.
Causality & Evaluation	<ol style="list-style-type: none"> 10. *MTGI, Chapter 2, To Work Against Poverty 11. *RRE, Chapter 2, Why Randomize 12. *RRE, Chapter 4, Randomizing
Theory of Change, Outcomes and Threats	<ol style="list-style-type: none"> 13. *RRE, Chapter 3, Asking the Right Question 14. *Goldilocks chapter 15. *RRE, Chapter 5 (in particular 5.1 and 5.3) 16. *RRE, Chapter 7
Behavioral Economics	<ol style="list-style-type: none"> 17. *MTGI, Chapter 3, To Buy 18. Mullainathan, Sendhil. 2004. "Psychology and Development Economics." MIT and NBER. 19. Bertrand, Marianne, Sendhil Mullainathan, Eldar Shafir and Jonathan Zinman. 2009. "What's Advertising Content Worth?"
Credit: Failure Mechanisms	<ol style="list-style-type: none"> 20. *Karlan, Dean and Morduch, Jonathan. 2010. "Access to Finance." Handbook in Development Economics Volume, Chapter 71.
Credit: Impact	<ol style="list-style-type: none"> 21. *“The Role of Microfinance” op-ed post on Kristof’s NYTimes blog: <u>http://kristof.blogs.nytimes.com/2009/12/28/the-role-of-microfinance/</u> 22. *MTGI, Chapter 4 To Borrow 23. *PE, Chapter 7, The Men from Kabul and the Eunuchs of India: The (Not So) Simple Economics of Lending to the Poor 24. Banerjee, Abhijit, Esther Duflo, Rachel Glennerster and Cynthia Kinnan. 2013. "The Miracle of Microfinance? Evidence from a Randomized Evaluation.

	<p>25. Karlán, Dean and Jonathan Zinman. 2011. "Microcredit in Theory and Practice: Using Randomized Credit Scoring for Impact Evaluation." Science, 332(6035): 1278-1284.</p> <p>26. Karlán, Dean and Jonathan Zinman. 2008 "Expanding Credit Access: Using Randomized Supply Decisions To Estimate the Impacts." Review of Financial Studies, 23(1): 433-464.</p> <p>27. de Mel, Suresh, David McKenzie and Christopher Woodruff. 2008. "Returns to Capital in Microenterprises: Evidence from a Field Experiment." Quarterly Journal of Economics, 123(4): 1329-1372.</p> <p>28. Karlán, Dean; Ryan Knight and Christopher Udry. 2012. "Hoping to Win, Expected to Lose: Theory and Lessons on Micro Enterprise Development."</p>
Credit: Design	<p>29. Gine, Xavier and Dean Karlán, "Group versus Individual Liability: Short and Long Term Evidence from Philippine Microcredit Lending Groups"</p> <p>30. Field, Erica, Rohini Pande, John Papp and Natalia Rigol. 2012. "Does the Classic Microfinance Model Discourage Entrepreneurship Among the Poor? Experimental Evidence from India."</p>
Savings: Impact	<p>31. *MTGI Chapter 7, To Save</p> <p>32. *Karlán, Dean. 2008. "The Impact of Savings." Financial Access Initiative, Framing Note No. 1.</p> <p>33. *Karlán, Dean, Aishwarya Ratan and Jonathan Zinman. 2013. "Savings by and for the poor: A research review and agenda", forthcoming Review of Income and Wealth</p> <p>34. Dupas, Pascaline and Jonathan Robinson "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya." American Economic Journal: Applied Economics, 5(1): 163-192.</p>
Savings: Behavioral Savings	<p>35. *PE Chapter 8, "Saving Brick by Brick"</p> <p>36. *Karlán, Dean. "Helping the Poor Save More." Stanford Social Innovation Review, Winter 2010.</p> <p>37. Brune, Lasse and Xavier Gine, Jessica Goldberg and Dean Yang. 2012. "Commitments to Save: A Field Experiment in Rural Malawi."</p> <p>38. Karlán, Dean, Nava Ashraf and Wesley Yin. 2006. "Tying Odysseus to the Mast: Evidence from a Commitment Savings Product in the Philippines." Quarterly Journal of Economics, 121(2): 635-672.</p> <p>39. Karlán, Dean and Leigh L. Linden. 2013. "Loose Knots: Strong versus Weak Commitments to Save for Education in Uganda"</p>
Entrepreneurship Training	<p>40. *PE, Chapter 9, Reluctant Entrepreneurs</p>

	<p>41. Karlán, Dean and Martin Valdivia. 2011. "Teaching Entrepreneurship." Review of Economics and Statistics, 93(2): 510-527.</p> <p>42. Beaman, Lori and Jeremy Magruder. 2013. "Minding Small Change among Small Firms in Kenya", forthcoming Journal of Development Economics</p> <p>43. Drexler, Alejandro, Greg Fischer and Antoinette Schoar. 2012. "Keeping it Simple: Financial Literacy and Rules of Thumb"</p> <p>44. Bloom, Nicholas, Benn Eifert, Aprajit Mahajan, David McKenzie, and John Roberts. 2012. "Does Management Matter: evidence from India" Quarterly Journal of Economics.</p> <p>45. Bruhn, Miriam, Dean Karlán and Antoinette Schoar, The Impact of Consulting Services on Small and Medium Enterprises: Evidence from a Randomized Trial in Mexico</p>
Agricultural Finance	<p>46. *PE, Chapter 6, Barefoot Hedge-Fund Manager</p> <p>47. Karlán, Dean and Isaac Osei, Robert Osei and Christopher Udry. 2012. "Agricultural Decisions after Relaxing Credit and Risk Constraints."</p> <p>48. Giné, Xavier and Dean Yang. 2009. "Insurance, credit, and technology adoption: Field experimental evidence from Malawi." Journal of Development Economics, 89(1): 1-11.</p> <p>49. Duflo, Esther, Michael Kremer, and Jonathan Robinson. 2011. "Nudging Farmers to Use Fertilizer: Theory and Experimental Evidence from Kenya." American Economic Review, 101: 2350-2390.</p>
Agricultural Technology & Markets	<p>50. *MTGI Chapter 8, "To Farm"</p> <p>51. *Conley, Timothy and Christopher Udry. 2008. "Learning about a New Technology: Pineapple in Ghana." American Economic Review, Yale University.</p> <p>52. Ashraf, Nava, Xavier Gine and Dean Karlán. 2009. Finding Missing Markets (and a disturbing epilogue): Evidence from an Export Crop Adoption and Marketing Intervention in Kenya, American Journal of Agricultural Economics</p>
Health	<p>53. *PE Chapter 3 "Low-Hanging Fruit for Better (Global) Health?"</p> <p>54. *MTGI Chapter 10, "To Stay Health"</p> <p>55. *Cohen, Jessica and Pascaline Dupas. 2010. "Free Distribution or Cost-Sharing? Evidence from a randomized malaria prevention experiment." Quarterly Journal of Economics, 125(1): 1-45.</p> <p>56. *Kremer, Michael and Edward Miguel. 2004. "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." Econometrica, 72(1): 159-217.</p> <p>57. Gine, Xavier, Dean Karlán and Jonathan Zinman. 2010. "Put Your Money Where Your Butt Is: A Commitment Savings Account for Smoking Cessation." American Economic Journal: Applied Economics, 2(4).</p> <p>58. Bjorkman, Martina and Jakob Svensson. "Power to the People: Evidence from a Randomized Field Experiment of Community-</p>

[Based Monitoring in Uganda”, Quarterly Journal of Economics, 2009, 124:2.](#)

Education	59. *MTGI, Chapter 9, To Learn
	60. *PE, Chapter 4, Top of the Class
	61. *Duflo, Esther. 2001. "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." American Economic Review, 91(4): 795-813.
	62. *Banerjee, Abhijit V., Shawn Cole, Esther Duflo, Leigh Linden. 2007. "Remedying Education: Evidence from Two Randomized Experiments in India." Quarterly Journal of Economics, 122(3): 1235-1264.
	63. Kremer, Michael. 2003. "Randomized Evaluations of Educational Programs in Developing Countries: Some Lessons." American Economic Review Papers and Proceedings, 93(2): 102-106.
	64. Kremer, Michael, Paul Glewwe, and Sylvie Moulin. 2009. " Many Children Left Behind? Textbooks and Test Scores in Kenya." American Economic Journal: Applied Economics, 1(1): 112-135.
Holistic Approaches: Graduation Model	65. *Bandiera, Oriana et al. 2013. "Can Basic Entrepreneurship Transform the Economic Lives of the Poor?"
	66. *Banerjee, Abhijit, Esther Duflo, Raghavendra Chattopadhyah and Jeremy Shapiro. 2011. "Targeting the Hard-Core Poor: An Impact Assessment."
Conclusion	67. *RRE, Chapter 9 (particular 9.2, 9.3 & 9.4)
