



Economics Graduates' Skills and Employability

Final study report

(Based on an employers' survey and interviews)

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Acknowledgements

The Economics Network would like to thank all the employers who contributed to this survey, for their time and valuable comments. In addition, thanks go to the Higher Education Academy for their support and contribution to funding for this project. We are especially grateful to the Government Economic Service (GES), and Andy Ross and Jonathan Webb in particular for encouraging GES Chief Economists and GES assessors to not only respond to the survey but also answer our additional questions. We hope that this report and its findings will help support economics departments to develop rounded graduates who will become effective and innovative employees.

Background

In February 2012 the Government Economic Service and the Bank of England hosted an event which explored economics teaching and learning in UK universities in the wake of the financial crisis. In particular, the discussion focused on the challenges faced by higher education institutions and the changes they need to implement in order to produce economics graduates who are fit for purpose.

As a follow up to this event, the Economics Network (EN) agreed to survey and interview employers, with the purpose of exploring graduate skills. The survey was partially funded by the Higher Education Academy and is part of an ongoing research project into the effectiveness of learning and teaching in Economics HE (a previous employers' survey was conducted by EN in 2007). The results of all the surveys that make up this project are available on the Economics Network website: www.economicsnetwork.ac.uk/projects/surveys.htm.

Methodology

The main focus of the survey was on employers currently employing economics graduates, both as economists and in related roles.

A two stage approach was adopted, which included a survey of the employers and interviews with some of the respondents. Due to the short timescale of the project, it was agreed to start with the employers' survey, followed by the interviews – the reverse of the usual pattern. Including a question in the survey, asking the respondent if he/she agree to be contacted for further research, allowed us to contact the respondent for the interview at a later point.

The report includes an analysis of the 54 individual responses received, plus a summary of the GES Chief Economists' responses and the 17 responses to supplementary questions from GES assessors of economics graduate applicants. Employers were from central government, consultancy, charity, research and finance advisory sectors. The survey included 13 questions (Appendix 1) about the respondent's company and the skills and knowledge of the economics graduates that the company has employed. Appendix 2 describes the full procedure that economics graduate applicants go through at Economic Assessment Centre (EAC) while applying for GES jobs.

Follow up interviews were conducted with some of these employers (5). The interviews consisted of 7 questions, exploring the recruitment process and any skill/knowledge/understanding deficit among economics graduates.

In the report for illustrative purposes we've included "word clouds" images.

The main aim of the project was to:

- Inform the academic economics community in the UK about employers' requirements of economics graduates.
- Assess employers' experience of economics graduates: do they possess the required skills and knowledge? If not, what are the shortfalls?
- Be capable of driving curricula changes and be robust in terms of academic audit.
- Distinguish between types of economics graduates but also include a generic skills category.

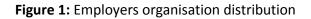
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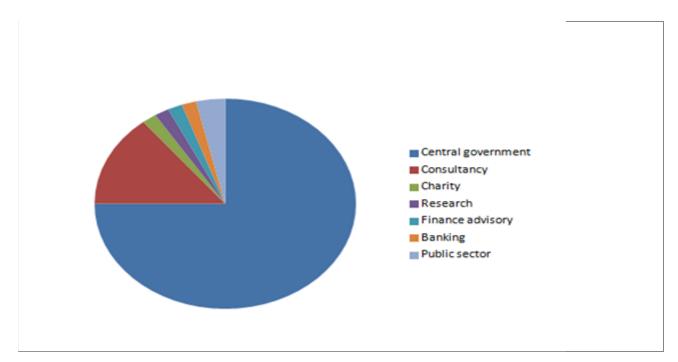
• It should be stressed that all the employers that took part in the survey and interviews were able to select the best graduates in this very competitive job market and their replies relate exclusively to those graduates who have passed a very rigorous screening process.

Survey results

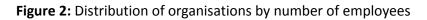
To ensure a wide range of opinions were included in the survey, the Economics Network secured the help of the *Association of Graduate Careers Advisory* Services (AGCAS) and the *Association of Graduate Recruiters* (AGR), as well as participants of the GES-BoE conference to promote the survey. It was run online on Bristol Online Survey (BOS) from 26 March to 16 of July 2012.

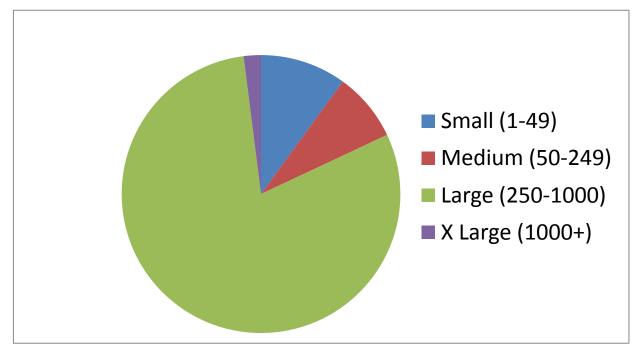
There were 54 individual responses to the survey. Respondents were from a range of organisations, which included: Food Standards Agency, New Economic Strategies, Ministry of Justice, Oxford Policy Management Ltd, Economic Consulting, Deloitte LLP, Institute of Fiscal Studies (IFS), and Department for Business, Innovation and Skills, ODI Fellowship Scheme. The GES supplied us with a summary response from their Chief Economists, which has been included in the report.





The organisations that took part in the online survey were scewed towards the large size (in terms of number of employees), due to the large proportion of participating government organisations, as can be seen in Figure 2.





When asked if there are specific jobs in their company/organisation for economic graduates, 98.0% of respondents provided a positive answer. When asked to give details about those jobs, respondents mentioned the following:

- "We employ Economic Advisers and Assistant Economists. The analytic team is lead by a senior civil service economist."
- "Government Economic Service Fast Stream Assistant Economists."
- "Economists are recruited as fast streamers and provide economic advice at a number of levels."
- "Overseas development consultants."
- "Our Economic Consulting is specialised in applying economic theory in a commercial context for leading public and private sector clients."
- "Economic researchers."
- "Postgraduates economists are recruited by the ODI Fellowship Scheme annually, for twoyear posts within developing country governments. Fellows work in government ministries as economists - current placements are in Africa, the Caribbean and the Pacific."
- "Economists are recruited as fast streamers and provide economic advice at a number of levels."
- "The organisation has a many Economist posts. These roles support the policy making process by using knowledge of economics and quantitative methods to inform and shape policy. The posts include investment appraisal, evaluation and modelling."
- "Economic assistants and advisers (GES posts) as well as some senior economic posts including that of Chief Economist. Last CEO and DG were both economists."

When asked in general why they recruit economics graduates, the majority of respondents (79.6%) mentioned "knowledge and understanding of economics", 75.9% highlighted the "work they are required to do" and 61.1% emphasised the "skills they bring with them." The GES Chief Economists mentioned these same reasons in their responses. When ask to provide details respondents mentioned:

- "Our research is economic analysis so we require understanding of economics as the basis of the job."
- "The scheme is designed to help government ministries fill gaps in capacity by providing skilled economists, but also to help young economists gain valuable work experience."
- "Many economists have shown themselves able to subsequently move into non-economist or non-analytical roles and, therefore, have been an excellent talent pool for a wider range of jobs in the civil service."

The next question (Q7) was about qualification of graduates and whether respondents feel they were "over qualified", "about right" or "under qualified". There were no replies that graduates were "over qualified", 66.7% believe them to be "about right", while the rest thought they were "under qualified." Comments from the respondents included: "It depends on the quality of the graduate. However recently we have been getting very good graduates, most with a First Class degree in economics, but this is likely down to labour market conditions and the competitive nature of Fast stream entry;" "General economics knowledge is good, but most of our work is microeconomics,

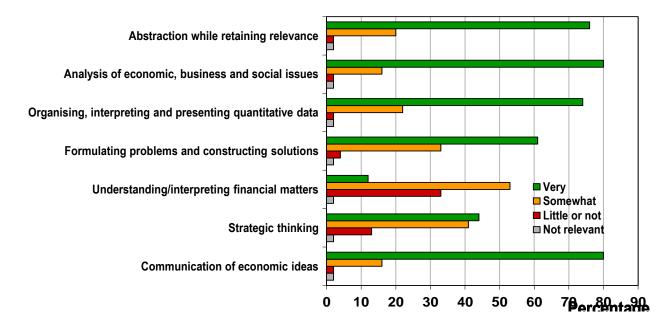
whereas the emphasis of most students is on macroeconomics. Also, there is a lack of knowledge regarding economic history;" "It's impossible to give a simple answer to this as there is a massive variation in the quality of graduates applying to the GES, ranging from those with barely any coherent understanding of any economics to those with clear, incisive and wide-ranging understanding. All graduates which reach the interview stage for the GES (which is the basis for these comments) have a predicted 2.1 University grade. For those at the weak end of the scale it is surprising that they're expecting to get 2.1s, though perhaps they manage to scrape through by being able to memorise stock answers to questions and recite mathematical derivations etc without any real understanding of the actual principles being applied;" "Under qualified in some areas and over qualified in others."

Most of the GES responses were "about right" and the following comments were left:

- "While the level of qualification may be about right, graduates often lack the ability to apply quite basic economic skills in practical, policy-relevant contexts."
- "We only employ economists with MScs and this has been our policy for many years; to that extent, our standing position is that our economists need to be sufficiently deeply trained in economics and able to pass M-level examined courses."
- "It can vary quite a lot for at least two reasons. Firstly, some economists are better than
 others in general and better at picking up new areas in particular. Those who naturally apply
 an economist's structure to their problem solving are often the most adaptable. The second
 reason for variation is that many of our jobs require economists and other analysts to
 convert their proposed approach to solving a problem into computer code to build models
 and/or interrogate data. In my experience, there are huge variations in the extent to which
 economists are good at the attendant programming and 'data torture' skills. The most
 effective economists are those who combine technical rigour with a knack of spotting the
 most effective way of solving a problem with the available data and tools."

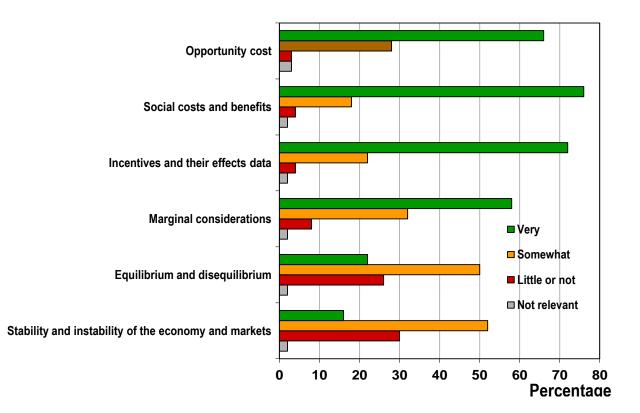
The next group of questions focused on economics graduates' subject specific skills, knowledge and understanding, and which of these employers see as important for employment in their organisation. It also asks them to rate the level of the general skills of economics graduate appointees.

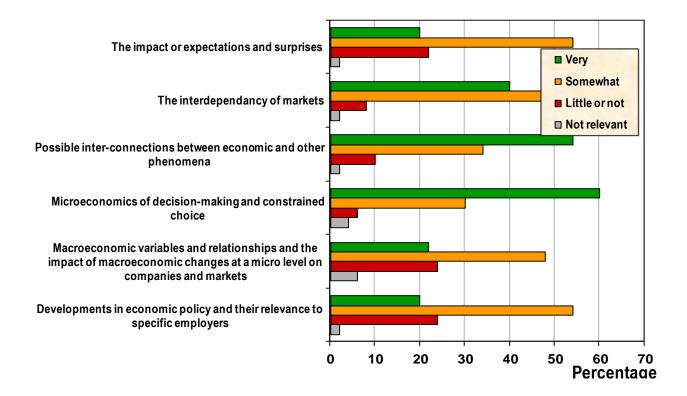
Q8. Which of these skills do you see as important in economics graduate appointees to your organisation?



Two skills ("analysis of economic, business and social issues" and "communication of economic ideas") are perceived as "very important" by 80.0% of respondents, while the "ability to organise, interpret and present quantitative data" and "abstraction (the ability to simplify complexity while still retaining relevance)" are perceived as "very important" by three quarters of respondents. The skills which were seen to be less important were: "understanding and interpreting financial matters" and "strategic thinking" which were rated as "very important" by 12.0% and 44.0% of respondents respectively. GES responses about skills were very similar: they ranked all of these skills as "very important", with the exception of "understanding/interpreting financial matters" and "strategic thinking" which were considered "somewhat important".

Q9. Knowledge and understanding of which of the following areas do you see as important in economics graduate appointees to your organisation?

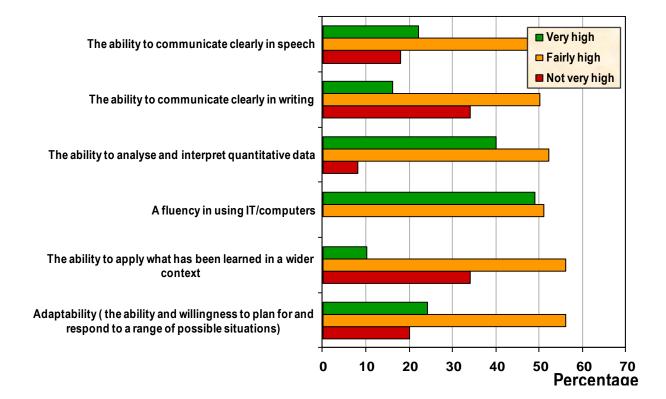




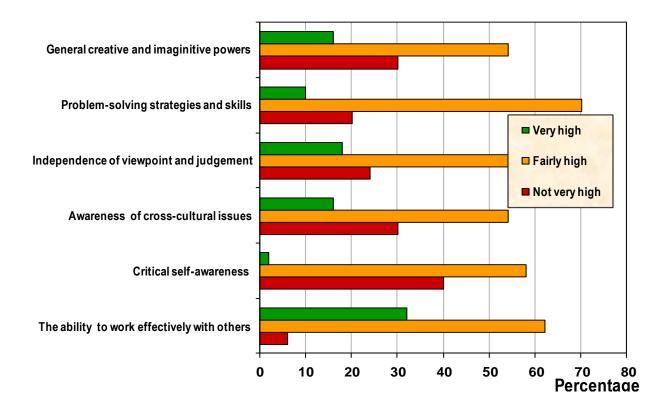
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More than 60.0% of respondents perceived knowledge and understanding of "opportunity cost", "social costs and benefits", "incentives and their effects", "microeconomics of decision-making and (constrained) choice" as "very important", while more than 25.0% saw "stability and instability of the economy and markets" and "equilibrium and disequilibrium" as of "little or no importance." At the same time more than 50% perceive "stability and instability of the economy and markets", "the impact or expectations and surprises", "the interdependency of markets" and "developments in economic policy and their relevance to specific employers" as "somewhat important."

GES responses about knowledge and understanding of the following areas identified all of them to be "very important", with the exception of "equilibrium and disequilibrium', "stability and instability of the economy and markets", "the impact or expectations and surprises", "the interdependency of markets" and "macroeconomic variables and relationships and the impact of macroeconomic changes at a micro level on companies and markets" which were perceived to be "somewhat important".



Q10. How do you rate the general skills of economics graduate appointees in each of the following?



In rating the general skills of economics graduates, the "ability to work effectively with others", "a fluency in using IT/computers" and "the ability to analyse and interpret quantitative data" was rated by more than 30% as "very high". The less developed skill among economics graduates was "critical self-awareness", which was rated as "not very high" by 40.0% of respondents. Other general skills in need of development that were rated as "not very high" by at least 30.0% of respondents were: "awareness of cross-cultural issues", "general creative and imaginative powers", "the ability to communicate clearly in writing", and "the ability to apply what has been learned in a wider context".

Due to the fact that some of the respondents from the GES perceived some of the general skills of economics appointees to be of "very high" level, while the others saw them as "not very high", the summary of the responses centred on "fairly high".

Q11. Which skills (general and specific) and knowledge do you believe are most needed to be developed further in economics degree courses?

The skills mentioned by nearly all the respondents were "communication skills" and "application skills", with comments including:

- "Communication skills, it seems a little trite but we get too many graduates with good degrees who cannot communicate clearly in writing or orally."
- "Communication, including data presentation. Ability to think about wider context."
- "Communication skills, both verbal and written."

- "The ability to write clearly and accurately."
- "Application of theory to policy questions."

Word cloud made of respondents replies to this question



Other skills mentioned by employers were:

- "Presentation and team working skills."
- "Rigorous analysis of facts and empirical evidence and then ability to synthesise 'what it means' on balance (rather than say 'it depends' or 'evidence is mixed')."
- "Practical issues in investment appraisal."
- "Links between economics and local economic development (UK)."
- "Candidates need to understand the basics and be practiced at applying these principles to a range of different situations."

Comments received from the GES were mostly focused on subject specific skills and understanding:

- "Economic history."
- "Cost benefits analysis."

- "Applied economics in general: growth and productivity economics and issues; current macroeconomic issues; industrial economics and policy; knowledge of data sources and information; data analysis; methodology."
- "Applying economic concepts in practice and basic knowledge of the 'key economic facts' (e.g. manufacturing share in GDP cross countries and over time)."
- "Economic history and real-world case studies of both micro and macroeconomic policies and their effects are important to give young economists a grasp of the application of ideas and the data that is available to work with and to monitor policy's impacts."
- "The importance of understanding and communicating evidence in order to respond effectively to policy questions."
- "Applied problem solving using administrative type data alongside more standard survey data."
- "Programming skills (no specific language but just experience of the most efficient and effective ways of writing programs to analyse data and develop bespoke and more substantial models)."

Q12. What advice you can give to current economics students?

Respondents provided a lot of advice to economics students, which will be added to the <u>http://www.studyingeconomics.ac.uk/</u> site.

Among the suggestions:

- "Don't be narrow in thinking or reading. Economics, sociology, behavioural science, history, mathematics, philosophy, physics, biology all offer important thinking to economists."
- "Come and do work experience in government as an excellent way of finding out what we do and what a career with us would look like."
- "To be more commercially aware. Being able to think about current affairs from an economic point of view and to communicate the thoughts logically."
- "Make sure to focus as much on communications as you do on underlying quality of the work the latter will go unnoticed if the communications are not effective."
- "Awareness of what is going on outside economics, both in other social sciences and in science in general especially with regards to networks."
- "I would recommend taking a History of Economic Thought module if available. Understanding of core theory, and where the rest of theory comes from, why we do or don't think certain models are relevant, is hugely important (and often overlooked in favour of complex mathematics)."
- "What is surprising as an assessor is to see candidates who produce good written work and a presentation on the pre-prepared topic, then struggle to develop their answers in oral

questioning. I suspect that current student numbers in Universities has meant that students have been given little opportunity to develop these skills."

• "Get used to talking about economics and applying the general principles to new issues. Practice written explanations of more complex economic concepts for non-economists, being clear and easy to follow but not patronising!"

Word cloud made of respondents replies to this question



GES respondents left the following advice:

- "An MSc will be important at some stage to career prospects in government. A PhD can be useful in some cases. Get some understanding of the policy environment and what departments do before applying for a government post. Get interview practise to develop, communicate and discuss a clear structured argument. Think about what an interviewer is looking for and how you could demonstrate that. Some experience working in business could be useful (delivering well-written relevant material to deadlines, working with others). Follow economic debates in the financial press; be able to look at different aspects of the argument."
- "Importance of understanding the need to communicate succinctly."

• "Understand the core of theoretical micro-economics but fully understand its limitations and assumptions. Follow the current debates on behavioural economics and the like but be curious to read historic works from Smith to Marshall, Marx to Keynes, the Austrians and anyone who has won a Nobel Prize!"

Q13. Any further comments you would like to make about economics graduates?

At the end of the survey respondents were asked if there were any further comments they would like to make about economics graduates. Among the replies were the following:

- "I would like to see more focus on applied economics, good micro econometric skills and more public policy courses. Universities may want to plug more into the GES to get an insider view of what a career in government could look like."
- "Some use tools unquestioningly, without understanding what assumptions underlie certain approaches."
- "Some of them are very good at memorising and playing things back but are unable to then apply the same concepts to a different situation or to fundamentally understand economics."
- "The ability of economic graduates to apply their knowledge effectively varies substantially between candidates (natural talent) but also between different universities. The same mark awarded from different universities does not imply the same level of knowledge or skill."
- "Graduates sometimes struggle to think around problems and are expecting to encounter issues in a very narrow context."

Word cloud made of respondents replies to this question



GES final comments were the following:

- "The most effective economists are those who also have the best "soft" skills communication, teamwork, emotional intelligence, etc. They could really up their skills by doing some Operational Research type modelling alongside their economics training."
- "Very pleased with those that I've recruited technically able and generally good communicators."
- "The responses to this survey from the GES chief economists are NOT indicative of general economics graduates as, of those that appear at interview (all of whom hold or are predicted to have a 2.1 or better), about half fail our recruitment process. Our responses therefore relate exclusively to those applicants who have passed our rigorous screening processes."
- "It is the case that we feel we have to fail half of our interviewees even though by doing so we are typically not filling all the vacancies we have."
- "To get a more accurate picture of the GES view of economics graduates one would have to survey not just the employers but the GES assessor cadre."

We are grateful to GES for forwarding our survey and supplementary questions to GES assessors which provided us with information on the skills and knowledge of a larger cohort of economics graduates.

Response from GES assessors to supplementary questions

All economics graduates, applying for the GES jobs have to go through Economic Assessment Centre (EAC). The full procedure is described in Appendix 2.

GES assessors were invited to answer the survey and 5 supplementary questions about the application process and applicants' skills and knowledge. In their replies, assessors point to the difficulty of generalising as applicants vary in their skills and preparation.

1. How well prepared are economics graduates for the recruitment process (including application forms, CVs, presentations, etc.)?

The replies centred round three main areas of the recruitment process: applications, interviews and presentations.

<u>Applications</u>: Nearly all the assessors find application forms well prepared. Among the suggestions:

• "A very important point to make regarding application forms or the written work they present is about grammar and typographical mistakes. They probably need to practice writing and to refresh their written skills as these will become valuable not only for applications to other posts but in their day job."

<u>Interviews</u>: Some candidates are well prepared, while others not so. Among the criticism is the unpreparedness for an 'economist' interview panel:

- "Candidates do not always remember some basic economic principles such as opportunity cost or equilibrium, let alone some slightly more advanced but still first year knowledge, e.g. the distinction between economies of scale, scope and returns to scale. Where candidates express a specific area which they would like to discuss further (which is apparently an area of strength), they sometimes struggle to explain why the area they chose is interesting and what they have learned from studying such area of economics. If they discussed a recent project they conducted or wrote, they find it difficult to explain the question that they were trying to answer and how they went about answering it. Some of them even fail to remember the basic econometric tests that they may have used to test the significance of the explanatory factors."
- "Few show very good overall preparation, e.g. clear evidence of having practiced writing their technical and policy papers in half-an-hour or delivering their presentations, or of having thought through their special topic."
- "Some applicants seem unprepared for a technical economics interview."
- "Some individuals don't seem to prepare in a targeted way: e.g. if you apply to work in economics with Government, expect to be asked about the role of Government in economics and review areas or market failures- externalities, public goods, information asymmetries, inflation (what is the problem)."



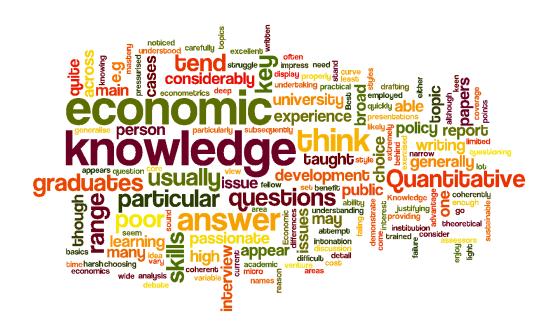
<u>Presentations</u>: Some had prepared well for presentation, while others were lacking presentation skills. Among the comments were the following:

- "In the presentations that candidates give, some candidates are very good and they would not reiterate fully the points already made in the written report. But some will literally read through and do not seem to have practiced telling a story which makes the presentation interesting to themselves or to the panel. A little preparation and rehearsing will go a long way of addressing this issue."
- "On the whole, I think people would perform better if they understood they needed a good grasp of the basics rather than detailed knowledge of complex models."

2. Which skills are economics graduates good at?

Respondents were happy with the strong quantitative capabilities of graduates and their knowledge of a good range of economic concepts.

Word cloud made of respondents replies to this question



Among their comments:

- "Most tend to know the core of the subject and key literature. Numeracy is usually high, and usually a good theoretical knowledge of econometrics (though often little practical experience)."
- "In my view, most candidates, with some prompting, can form a coherent economic argument on a particular issue of interest. For those who are passionate about a topic, e.g. sustainable development, some would go into the details of how important the economic analysis could support development of policy in this area. However, many candidates are not passionate enough about a specific issue or set of issues, and their main skills lie in being able to think logically and coherently on a topic. I have noticed some differences when some candidates are from a particular university or institution. Some are trained in public economics and many others do not seem to have a choice or exercised such a choice. It may be a good idea for candidates who would like to consider a public sector economist job to venture either by choosing their modules carefully or by undertaking some studies of their own."
- "Economic graduates tend to be good at one or two particular areas of economics that they enjoy or have studied in detail. This varies from person to person."

- "Knowledge of economic basics is generally good and is not the reason for failing the interview in the majority of cases of failure. However in some cases the knowledge that candidates show appears to be superficial and not properly understood, so it doesn't stand up to even light questioning."
- "When prepared, the technical papers of candidates are on the whole quite good."

3. Which skills do economics graduates need to develop further?

Assessors stress the need for further development of the graduates' abilities in application of theory to practice, written and verbal communication skills, their critical self awareness and better knowledge of Economic History.

Word cloud made of respondents replies to this question



Among the comments:

- "Again varies considerably between candidates, but often includes: Applying economics to problems, especially applying economic concepts from first principles to issues they aren't familiar with. Explaining economic concepts in a simple and concise manner."
- "Written communication skills, telling a story with numbers, applying economics concepts to unfamiliar areas, critical thinking."

- "Of the candidates who do not get through the most frequent failing is in the ability to 'reason like an economist', they can be good on what they have learned, good on knowing the theory, but the ability to apply it to unusual circumstances can be missing."
- "The ability to apply economic knowledge and concepts. Many economic graduates have knowledge of areas of economics but are unable to apply them to policy questions. The ability to critically apply knowledge and techniques to help investigate questions is an important skill that needs to be developed further."
- "For the GES assessments, most struggle to find a good balance between unsubstantiated statements/generalisations and evidence to support them it seems they fall into 2 extremes (either no data/evidence, or far too much). Also, in written exercises, candidates tend to struggle with developing a clear narrative to their arguments. They seem to focus on generating lots of material, without having a clear structure to their script that is aimed towards answering the question that has been set. In discussion, candidates can struggle to defend their point of view. With some, this may be due to them parroting views they have heard elsewhere (e.g. FT, Economist, Robert Peston), but this could be strengthened through 'stress-testing' of points of view when they are learning. I think this could be a valuable channel I know I have found this to be the case for my personal development!"
- "Some candidates struggle to apply what they have learnt to practical questions and to give a convincing account of what economic analysis can and cannot say about particular problems."

4. Do you think there is a skills/knowledge/understanding deficit in economics graduates?

The majority of assessors agree that there are deficits in skills, knowledge and understanding among economics graduates. The following were among the comments:

- "Obviously in some. I have interviewed some outstanding candidates, and I have interviewed many who I can't believe have passed their under-grad (we only interview those with a 2:1 or better). I have also interviewed a number with post-grad degrees who are not up to our mark."
- "I do feel that in certain circumstances graduates lack a lot of ability to apply economics to simple situations. It appears that they are not taught any of these skills, but I am probably wrong here. Communication skills is key; but written skills – good English is always a good thing as employers in the private sector would bin an application if it is full of grammatical or typographical errors – is as important. Candidates are not prepared enough for the job market – and while some universities have support on CV writing and career advice they probably cannot teach the specific requirements for an economist in government."
- "There is a deficit in understanding the limitations of the "economics field" and a lack of awareness of how different evidence (for example across the different social science disciplines) can be complementary to each other in building an evidence base and investigation issues."
- "Some graduates or post-graduates (perhaps particularly those who have specialised in mathematical/financial models or advanced econometric work, but not always) seem to have lost the ability to articulate simple economics, especially to non-economists and to approach a new problem using their basic economic tools."
- "There seems to be a general bias in favour of quantitative ability and financial understanding, which while undoubtedly a valuable skill, seems to have come at a cost of

deeper knowledge of economic history. Previous policies and developments in economic theory over time, as well as the context in which such decisions were taken, is an important part of understanding the impact of potential future policies."

- "Policy awareness and the ability to translate their economic knowledge in thinking through real life problems."
- "I have seen candidates with a three year degree unable to explain the rationale for Government intervention in markets or what the problems are that inflation causes societies... I wonder what they have learnt at Uni if not that!"
- "Difficult to generalise. But some candidates struggle to communicate how the principles and concepts they have learnt can be applied."
- "Translating economic concepts and arguments into plain English without loss of rigour or accuracy. Testing the economic models and theories they have learned by looking at empirical evidence."

Word cloud made of respondents replies to this question



5. What would you like universities to do to improve the quality of economics graduates?

Assessors provide advice on various aspects of economics education that can be improved. Among the comments were:

- "Needs less rote learning and more checking and building understanding as the students go through their course. E.g. assignments for students to apply a concept to an area that hasn't been taught, and critical discussion in tutorial groups focussed on a practical application."
- "Job market training; Applied economics to all students at Masters; Presentation of thesis to panel to also gauge communication skills and to provide assessment on these; Good mathematical skills to all students, rather than allowing some to avoid the relevant quantitative modules completely; Open the university teaching to accommodating more seminars including from GES members who can demonstrate how economics has been used in a policy area; For those who are serious about working in the public sector, to undertake full modules on public economics."
- "More practical focus. Research skills can be poor. Candidates can focus too much on theoretical issues rather than practical/pragmatic approaches. Drafting skills could improve. Team building exercises – joint projects etc – will help candidates understand some of the difficulties involved in the work place of working with others."
- "Universities need to put greater emphasis on history and context rather than simply presenting theories and research as facts. Secondly universities should put more emphasis on demonstrating how economics can be used with other disciplines to build evidence."
- "I think a stronger emphasis on economic history (which I realise is available, but tend[s] to be more an optional component) would help to develop rounder and well-developed economists. Also, more 'stress-testing' of perspectives – for example through debates, including asking students to reverse their positions and argue the opposite point of view – would also be beneficial."
- "Relate economics to the real world and why it matters: e.g. inflation leads to unpredictable reallocation of wealth and tends to disadvantage certain groups over others. Makes long term contracting impractical and thus planning..."
- "At work people rarely use complex models and rocket science math but need to understand real problems and how economics can help them analyse these. Universities should not forget that aspect over teaching the latest development in theory."
- "Encourage more application of concepts and theories to unfamiliar situations. Encourage students to work with students in other disciplines on joint projects."
- "Provide applied economics case studies. Get students to think through and explain the economic concepts (e.g. asymmetric information, moral hazard, opportunity costs) that are most relevant to a particular problem."

Word cloud made of respondents replies to this question



Interviews

The interviews were conducted with senior staff from the government, finance and consultancy sectors. These were arranged between May and July 2012. Interviewees were offered a choice of face to face, telephone or e-mail options to answer the questons. All in all five interviews were undertaken, with a focus on the employers' experience of economics graduates through their recruitment, training and employment processes.

Interview responses

Interviews were centred on 7 questions:

1. How well prepared are economics graduates for the recruitment process (including application forms, CVs, presentations, etc.)?

All the interviewees mentioned the demanding nature of the recruitment process and stressed the need for the candidates to tailor their CVs to the requirements of the job description. Some also described the recruitment process in their organisation, while others pointed to the characteristics of those candidates who don't make it through: "There are always a few who are not qualified (i.e. are not studying for a Masters) or who do not complete the application form fully (e.g. we ask for individual marks for each module studied)."

2. Do you hold assessment centres for candidates? If so, what are your procedures and criteria?

An interviewee from a non-governmental organisation described their recruitment process as follows: "We hold a panel interview of around 25 minutes, and also a group assessment. The latter is a group discussion/exercise between five/six of the candidates: they receive a case study, which they must read in 15/20 minutes, and then discuss for the next 20/25 minutes. They are posed a hypothetical situation and must come up with a solution to the problem(s). If candidates are short-listed for interview they need to attend the interview and group assessment."

An interviewee from Deloitte commented: "The general Deloitte graduate recruitment process holds assessment centres, whilst our process does not. Our team places emphasis on the interviews and written case."

An interviewee from the Institute for Fiscal Studies (IFS) described the process as follows: "We usually have around 250 online applications for 1-4 posts. Among the questions: Why they are interested in Economics? What are their career aspirations? For short listed candidates we have a test – to write a paper on policy related issues for the laymen - 2 pages of A4. First tests ask them to do it at home and send to IFS. Recently start asking them to do it at IFS before the interview. That also provides them with some ground to talk about at the interview."

3. Do you place much significance on a candidate holding a Masters degree?

There were mixed replies to this question. In some organisations Masters degrees are obligatory, while others don't ask for Masters, just a 1st or 2.1 in undergraduate degrees. The IFS interviewee replied: "We don't want to disadvantage undergrads. We roughly have them 50:50. Those who came with BS or BA are encouraged to apply for MS course after a year at work at IFS. We give them time to do it."

4. Which skills are important to get the job and which ones are important to do well in a job?

Interviewees describe the opinion of their organisations:

- "We offer 50 Fellowships a year, so the range of jobs (and therefore skills required) varies. We look for candidates who are strong economists first and foremost, ideally with some relevant work experience, an interest (or experience) in development and are suited to the civil service (we place Fellows in developing country government ministries)."
- "Economics specific skills and knowledge are important but we want to see how they apply them to solving Economics problems. Communication skills are very important: both verbal and written. We have people with different range of skills working at IFS: some have done more econometrics and prefer to stay outside the public eye, others are better at communication but need to develop their maths skills. We are also looking at using psychometric tests in the future, to test for other things (like writing applications for funding, etc.)"
- "The ability to apply economic knowledge in commercial context is important. Econometric modelling skills and the ability to effectively communicate ideas to general audience are also useful."

• "Basic economic competences, problem solving skills, good presentation skills."

5. Which skills economics graduates are good at and which ones they need to develop further?

Interviewees provided the following answers:

- "We found that economics graduates in general are not good at writing: they find it difficult to pick up the right points while preparing the reports. They will learn with experience, but at the start majority are not prepared for that. They are also not prepared for writing for the layperson. Their verbal communication is better and we can easily test it at the interview."
- "Economics graduates tend to have strong analytical skills. Better candidates also have good communication skills. Without much generalisation, report writing is the area graduates can develop further".
- "Often good at theory but weaker on application Need to be able to apply economics to real world issues and explain their policy recommendations and thinking clearly to others."

6. Do you think there is a skills/knowledge/understanding deficit among economics graduates?

There were mixed replies to this question. Some interviewees said that they do not see any deficit, while the others pointed to the following:

- "Most of the Fellows that we appoint have a reasonable amount of work experience, although sometimes there can be an unrealistic expectation of what they can achieve in-post if they do not have much work experience, or are just unfamiliar with the way developing country governments' work."
- "Micro-econometrics, evaluation techniques, hands on experience of utilising data."
- "Communications, written and oral presentations, evaluation techniques, microeconometrics."
- "Better candidates normally have more commercial awareness."

7. What would you like universities to do to improve the quality of economics graduates?

The main suggestion referred to further developing graduates' communication skills, both written and oral, as well as the following:

• "We always have more excellent applications than we need, so I think there are definitely a lot of good calibre candidates graduating. In terms of the ODI Fellowship Scheme, courses that touch on development issues/development economics are valuable, as is a good basic

grounding in economics. Work experience is always useful, as is a knowledge of civil service work, and African/developing country governments."

- "Please improve graduates' communication skills, both written and verbal."
- "Communications, written and oral presentations, evaluation techniques, microeconometrics."

Conclusions and recommendations

We received 54 individual responses to a survey, a summary response from the GES Chief Economists and 17 responses from GES assessors of economics graduate applicants to supplementary questions. Follow up interviews were conducted with some of these employers (5). The interviews consisted of 7 questions, exploring the recruitment process and any skill/knowledge/understanding deficit among economics graduates.

In the report for illustrative purposes we've included "word clouds" images, in addition to graphical depictions of responses

It is interesting to compare the results of 2007 employers' study with the current one. Unfortunately, due to the big differences in the employers' organisation distribution between 2007 and 2012 surveys, with the respondents from Central Government making up 19.0% in 2007 and 75.0% in 2012, we believe that full comparison is inappropriate. At the same time we notice that the results on knowledge, understanding and skills requirements of graduate appointees from both studies have many similarities. In 2007 the need to develop "communication" and "application" skills by economics graduates was often mentioned by the employers, as well as graduates preparation for interviews. The same skills were rated as very important by four out of five employers in 2012.

It should be stressed that all employers that took part in the survey and interviews were able to select the best graduates in this very competitive job market and their replies relate exclusively to those graduates who have passed a very rigorous screening process. Questions about assessment procedures were discussed in the interviews.

The study found that employers clearly value economics graduates and the specific skills and knowledge they bring to the workplace. Indeed, the results show that respondents employ economics graduates, above all for their "knowledge and understanding of economics", as well as for "the work they are required to do" and the "skills they bring with them".

However, a significant number of employers of economics graduates feel there is a skill/knowledge gap that needs to be addressed: when asked about the qualification level of graduates 66.7% believe them to be "about right", while the rest believe they were "under qualified".

Important Skills and Knowledge for Economics Graduates

Two skills, "analysis of economic, business and social issues" and "communication of economic ideas", are perceived as "very important" by 80.0% of respondents, while the "ability to organise, interpret and present quantitative data" and "abstraction (the ability to simplify complexity while still retaining relevance)" are seen as "very important" by three quarters of respondents. These findings mirror the discussion at the GES-Bank of England conference, where skills such as

interpreting and explaining complex economic ideas were highlighted as being integral to the development of graduates who are prepared for the workplace.

With regards to knowledge, vast majority of respondents indentify an understanding of "opportunity cost", "social costs and benefits", "incentives and their effects" and "microeconomics of decision-making and (constrained) choice" as "very important". At the same time, more than a quarter believe that "stability and instability of the economy and markets" and "equilibrium and disequilibrium" to be of "little or no importance".

Skills and Knowledge to be developed

Respondents identified a number of skills that they feel economics graduates need to develop, these included: written and oral communication skills, independence and creative thinking, the ability to apply what has been learnt and adaptability. Both the survey and the interviews with employers highlighted the importance of these skills for economics graduates – they stressed that graduates are very good at economic theory and analysis but not so good at applying theory to real world situations.

Both the participants at the GES-Bank of England conference and the employers that contributed to this study emphasised that they would like universities to improve the quality of economics graduates by helping them to further develop the skills mentioned above. Furthermore, respondents felt that students themselves could improve their employability by working on their communication skills and raising their awareness of what is happening outside economics, for example by exploring the other social sciences. In addition, students should seek to understand the limitations and assumptions of economic theory

Recommendations

- 1. Raise awareness of the economics graduates' skills deficit among economics lecturers and departments. Disseminations of the results through workshops and websites including http://whystudyeconomics.ac.uk/ and http://whystudyeconomics.ac.uk/ and http://www.studyingeconomics.ac.uk/.
- 2. Provide support (fora and resources) to departments to help them develop the curriculum and improve the general skills of economic graduates.
- 3. Engage with an appropriate forum to take forward the main issues mentioned in the report.

Appendix 1

Survey of the employers of the Economics graduates

In February 2012, the Government Economic Service and the Bank of England jointly hosted a conference which examined economics teaching in UK universities in the wake of the financial crisis. Following on from this, the Economics Network is undertaking its third employers' survey with the aim of improving understanding of the skills economics graduates need in the workplace.

This survey is part of an ongoing research project into the effectiveness of learning and teaching in Economics HE. It is partially funded by the Higher Education Academy. The results of the survey will be available on our site <u>http://www.economicsnetwork.ac.uk/projects/surveys.htm</u>.

We appreciate you taking time to provide the Economics Network with information about your experiences of employing Economics graduates.

You can complete the survey anonymously. It consists of 2 sections and should take less than 15 minutes to complete.

Data Protection

All data collected in this survey will be held anonymously and securely. No personal data is asked for or retained. Survey results and feedback will be reviewed within Economics Network and the aggregate data will be made available via our website. Aggregate data will be retained to benchmark future surveys.

Cookies are not used in this survey.

About your company:

- 1. What is the name of your company/organisation?
- 2. Is it in:
 - Central Government Local Government Public sector services Banking Financial Services Consultancy Construction Retail Manufacturing Utilities Distribution Other
 - 3. Please indicate the size of your company/organisation in terms of number of employees : Small (1-49) Medium (50 249) Large (250+)

- 4. Are there specific jobs in your company/organisation for economics graduates: Yes/No 4.a If yes, please can you describe them:
- 5. May we contact you in the future to participate in other parts of our study (please supply your e-mail address) (*Optional*)

About Economics graduates

- 6. In general why do you recruit economics graduates?:
 - □ Work they are required to do;
 - □ Skills they bring with them;
 - □ Knowledge and understanding of economics;

Please comment:

- How qualified do you feel the economics graduates are for current employment? (Over qualified / About right / Under qualified / Uncertain/Other) If Other – please specify:
- 8. Which of these skills do you see as important in economics graduate appointees to your organisation (Very / Somewhat / A little or not at all / No opinion or not relevant):
 - a. Abstraction (the ability to simplify complexity while still retaining relevance)
 - b. Ability to analyse economic, business and social issues
 - c. Ability to organise, interpret and present quantitative data
 - d. Framing (the ability to formulate economic problems, to determine the important parameters and to construct constrained solutions)
 - e. Understanding and interpreting financial matters
 - f. Strategic thinking (conceptualising and identifying the critical issues for economies, businesses and individuals)
 - g. Communication of economic ideas (the ability to communicate complex concepts to both fellow economists and to lay people)
- 9. Knowledge and understanding of which of the following areas do you see as important in economics graduate appointees to your organisation (Very / Somewhat / A little or not at all / No opinion or not relevant):
 - a. Opportunity cost
 - b. Social costs and benefits
 - c. Incentives and their effects
 - d. Marginal considerations
 - e. Equilibrium and disequilibrium
 - f. Stability and instability of the economy and markets
 - g. The impact or expectations and surprises
 - h. The interdependency of markets
 - i. Possible inter-connections between economic and other phenomena
 - j. Microeconomics of decision-making and (constrained) choice
 - k. Macroeconomic variables and relationships and the impact of macroeconomic changes at a micro level on companies and markets
 - I. Developments in economic policy and their relevance to specific employers

- 10. How do you rate the general skills of economics graduate appointees in each of the following (Not very high / Fairly high / Very high):
 - a. The ability to communicate clearly in speech
 - b. The ability to communicate clearly in writing
 - c. The ability to analyse and interpret quantitative data
 - d. A fluency in using IT/computers
 - e. The ability to apply what has been learned in a wider context
 - f. Adaptability (the ability and willingness to plan for and respond to a range of possible situations)
 - g. General creative and imaginative powers
 - h. Problem-solving strategies and skills
 - i. Independence of viewpoint and judgement
 - j. Awareness of cross-cultural issues
 - k. Critical self-awareness
 - I. Ability to work effectively with others
- 11. Which skills (general and specific) and knowledge do you believe most need to be developed further in economics degree courses? Please name at least one.
- 12. What advice can you give to current economics students?
- 13. Are there any further comments you would like to make about economics graduates?

Thank you for your time.

Appendix 2: Economic Assessment Centre procedure

All economics graduates, applying for the GES have to go through Economic Assessment Centre (EAC). Candidates are assessed against three competencies at EAC: knowledge of economics; application of economics and communication. Candidates must pass all three competencies at EAC to get through to the next stage, the Fast Stream Assessment Centre.

- **Technical report on the given topic**. Candidates are sent a topic to research in advance. In this written exercise they are encouraged to 'show off' their knowledge, technical grasp and understanding of the relevant economics. They will be verbally tested on what they have written as part of their interview. They will have 30 minutes to complete this report at EAC.
- **Policy report.** For this report candidates must 'translate' their technical report into plain English for a non-economist. They will need to write clearly and concisely and will be marked down for jargon. They will have 30 minutes to complete this report at EAC.
- Short answer questions. This will be a set of questions (likely to be 10 in total) testing candidates breadth of macro, micro and technical economics as an honours graduate. It is not multiple choices. They will have 30 minutes to complete this at EAC.
- **Presentation** to a two-person interview board on the policy recommendation. Candidates will receive their policy report and technical report back 30 minutes before their interview to allow them to prepare. The interview board will be one academic economist and one government economist. Candidates will be questioned on their policy report.
- Interview. This will follow on directly from the presentation and will cover both short answer questions paper (including additional questions) and topical issues, candidates will also be asked about their strongest area of economics. On topical issues, the Board is interested in the economic theory and application (not the politics). Candidates will want to demonstrate their ability to think about things from first principles. The presentation and interview will take an hour in total.

GESR responses on matters of procedure

1. What are you procedures and criteria in the assessment centres for candidates?

An outline of the EAC process and criteria is attached below.

2. Do you place much significance on a candidate holding a masters degree?

At the sift, candidates get additional marks if they have a postgraduate degree in economics. On average, just over a third of all successful candidates at FSAC have economics masters degrees.

3. Which skills are important to get the job?

At the Economic Assessment Centre, a common mistake among applicants is to think that they have to impress the assessors with advanced techniques. Overwhelmingly, we are looking for a firm grasp of the fundamentals. We want to see that candidates can apply these, even to unfamiliar topics. A good knowledge of core intermediate micro and macro will obviously help. Cost benefit analysis (CBA) is used extensively in Government but for the Assessment Centre candidates are expected only to understand its roots in welfare economics rather than use advanced CBA techniques. Elementary econometrics may also assist candidates.