

# Employers' Report

Rethinking  
Economics

# Foreword

The OECD launched its New Approaches to Economic Challenges (NAEC) initiative in 2012 to understand the shortcomings of the analytical frameworks we had relied on before the crisis, and to establish the basis of a better way of producing policy advice based on new frameworks. The obvious place to start was with the models being used by financial institutions, governments, international organisations and theorists. Our intuition was that the problem was deeper than poor parameterisation, incomplete data, etc. Why did so many highly-competent people, using highly sophisticated techniques, not see what was coming? Why were we so comfortable with the results of our models, and the underlying assumptions? Just as worrying was what happened when the crisis struck. Jean-Claude Trichet, President of the European Central Bank at the time, put it like this in a discussion with NAEC: “As a policymaker during the crisis, I found the available models of limited help. In fact, I would go further: in the face of the crisis, we felt abandoned by conventional tools”.

We concluded that NAEC should not be a “safe space” where like-minded people discussed how to adjust their techniques and practices so they would do better next time. We had to be prepared to shake up the orthodoxy, listen to the critics. That’s not easy, as any criticism is characterized as opposition to market economics. Nothing could be more wrong. We believe in market economics, and want to make it work. But we need to listen to those that think differently. Roberto Unger, another NAEC contributor, put it well when he said that sometimes what we need is “disensus”, to avoid herd thinking.

So we had to “kill our darlings”, as the writer William Faulkner advised. None was as dear to us as GDP. However, an economic strategy based solely on GDP assumes that growth is an end in itself and that we only need to grow the pie to reduce inequalities of income and opportunities, or that progress will take care of environmental damage – grow first clean up afterwards. This view is essentially linear, and the policy advice it generates is tailored to a linear system where an action produces a fairly predictable reaction (hence the simplistic metaphor of policy “levers”). It looks at aggregate outcomes and at average results. It concentrates on flows and does not consider stocks.

Today’s economic models make too many assumptions that are at odds with the facts. Their very name, general equilibrium, shows that they assume that the economy is basically in balance until an outside shock upsets it. They also assume that you can understand the economy by studying a representative agent whose expectations and decisions are rational. Perhaps the most damaging assumption for policymaking concerns the supremacy of the economics profession, particularly based on quantitative models, while some other disciplines that could provide insights are mostly ignored. This is reinforced by a “silo approach” that does not connect inequality with growth, or growth and sustainability. It does not focus on well-being, or well-being’s multidimensional character.

Traditional approaches ignore the fact that economic systems are influenced by culture, hope, fear, rumour, and other fundamentals of human interactions that sociology, psychology, history and biology, to name but a few, can help us understand. Economics has to be about people and well-being, so our growth model has to be people-centred. Simplistic proxies such as GDP fail to capture the multidimensionality of this. According to an index like GDP per capita for instance, most poor people in a rich country are better off than most middle-class people in a poor country.

We need to give policymakers more information, but it’s probably impossible to design a single GDP-like figure that would reflect the many different aspects that need to be considered in any meaningful way. A suite of indicators is more

appropriate. That’s why the OECD’s Inclusive Growth Initiative designed a Policy Framework with a dashboard of 24 indicators to capture the situation of people, and the policies that will particularly affect the bottom of the income distribution.

We also need to redefine the role of the state. The orthodox view is that the state should “interfere” as little as possible, and only to correct market failures. States should be aware of market signals and should provide a sound regulatory framework. But they should also invest in people, places and firms that are left behind, and direct growth, not just promote it. The state too has to change its silo-based approach to capture the complexity of the systems policymaking is dealing with. We need to think about how policies interact and influence each other, and be prepared to react to unintended consequences.

Our efforts to overhaul analytical frameworks and assumptions imply that we have to change how economics is taught. I am particularly interested in this because another of my responsibilities at the OECD is to oversee our work on education. I’m struck by the importance educational experts and employers alike give to social skills, both as an end in themselves and as a tool for learning or problem solving. This resonates with our call to “put people at the centre”. What does that imply for economics teaching?

For a start, it’s “people” not “a person”. As Alan Kirman argues, while disciplines ranging from statistical physics to sociology study the emergence of non-linear dynamics arising from complex interactions between individuals, economists still base their analysis on rational optimising individuals behaving as if they were acting in isolation. Students should learn more, for example, about cooperation and coordination. They should study the impact of competition and the drive for efficiency on well-being. They should learn how real markets involving real people actually work, not some stylised perfectly-competitive abstraction that has never existed. They should be aware that the researcher can influence the outcome of research. Decisions we take have feedback loops and unintended consequences that need to be understood better.

I fully agree therefore with the employers who took part in Rethinking Economics’ investigation that what businesses (and policymakers) need is “a curriculum that is more application-oriented, practicable, and grounded in critical and historical awareness.” Likewise, I agree with Rethinking Economics’ declaration that “Today’s economics students are tomorrow’s policymakers – we think it’s vital that they are trained to think critically, independently and with an understanding of the real world.” That’s why the NAEC Innovation Lab we are launching in October 2018 will be experimenting with agent-based models, big data, machine learning and behavioural economics.

I hope that we all agree that we need freethinking spaces like NAEC and Rethinking Economics to debate our differences and work out better policies for better lives!

## Gabriela Ramos

OECD Chief of Staff and Sherpa to the G20  
Leader of OECD-NAEC

# Introduction

The employability of university graduates has become an increasingly important part of the UK higher education (HE) system. Since the first wave of expansion in the early 1990s, during which HE participation amongst under 21 year olds increased from 12% in 1979 to 30%<sup>1</sup>, UK government officials have highlighted the role of universities in the UK's post-industrial, knowledge-driven economy<sup>2</sup>. As emphasized by the Department for Business, Innovation and Skills, these institutions develop the advanced skill-sets and technical knowledge necessary for UK competitiveness<sup>3</sup>. Widening participation in HE over the past three decades has also intensified competition in the graduate labour market which, coupled with higher fees, have heightened student concerns over the economic rewards of a university degree. In light of these changes, HE providers have intensified/strengthened their focus on graduate employment rates in an effort to generate student demand and satisfy key performance indicators in league tables<sup>4</sup>.

This heightened focus on employability is of particular relevance to economics teaching. The failure of the economics profession in predicting and explaining the 2007/8 Financial Crisis caused many to question the intellectual status of the discipline<sup>5</sup>. Above all else, the crisis served to illustrate the influence of economic expertise in public policy, the financial sector, and society as a whole. Unlike other social scientists, economists play a particularly pivotal role in government, with the Government Economic Service employing the largest amount of economics graduates in the UK<sup>6</sup>. Economics graduates also have higher salaries

than average<sup>7</sup> and are more likely to gain professional level employment than the wider UK graduate population<sup>8</sup>. In order to avoid the academic and professional shortcomings of the past, it is necessary that tomorrow's economic experts are more critical, analytical, and reflective than their predecessors.

The esteem and influence attributed to professional economists mean that the employability of economics graduates is inherently bound up with issues of wider socio-economic relevance. This is partially why there has been increased student demand for economics as an A-level and university subject in recent years<sup>9</sup>. Alongside employability concerns, students have been found to value economics because of the real-world applicability, academic rigour, and social prestige they believe to be associated with the discipline<sup>10</sup>. It is for this reason that Rethinking Economics has undertaken this research project. While our report's qualitative nature precludes it from being generalizable to the entire employer population, the 18 interviews included in this study provide an in-depth, holistic understanding of employers' values and perspectives towards economics teaching in universities.

In capturing the viewpoints of interviewees from a range of public, private, and third sector organisations, this report also illustrates the common concerns that employers have towards the economics curriculum. We hope these findings will contribute to the development of an undergraduate economics education that enables graduates to make positive contributions both within and outside of the workplace.

# Literature Review

## Trends in the Employability of UK Graduates

As higher education is increasingly valued by businesses and policy-makers for its economic benefits, universities have been pressured to enhance the market responsiveness of the education they provide to students. This issue has become particularly prominent due to the skills shortages reported by UK businesses, in which vacancies were left unfilled despite low levels of post-recession graduate employment<sup>11</sup>. While more than three-quarters of businesses expected to have more job openings for individuals with high-level and intermediate skills, confidence levels in the ability to fill these roles reached new lows in 2016<sup>12</sup>. This graduate skills shortage was further underlined by The Times Top 100 Graduate Employers for 2016, half of which hoped to improve the quality of graduates they recruited<sup>13</sup>. There are also concerns about underemployment in the graduate population, with rising amounts of university leavers working in low-skilled, precarious occupations that do not fully utilize the benefits of advanced study<sup>14</sup>.

In terms of employer demand, there is a degree of separation in the UK economy between those professional sectors which value subject-specific knowledge and more general sectors that recruit graduates of any subject discipline. Within the former, employers value the technical knowledge conferred by university study, particularly science, technology, engineering, and mathematics (STEM) degrees<sup>15</sup>. Notwithstanding these specialist occupations, graduate recruiters overall tend to place greater emphasis on graduates' attitudes and aptitudes for work rather than degree subject or results. This reflects the focus on generic skills within the UK graduate labour market, with employers giving more weight to communication and team-working than technical abilities<sup>16</sup>. Personal attributes are also highly valued by employers: intellectual ability was the general rationale for recruiting graduates amongst 76 employers interviewed in 2015<sup>17</sup>. Additionally, a collection of interviews and case studies of UK organisations highlighted the need for particular attitudes such as motivation, tenacity, and commitment<sup>18</sup>. As employers have come to expect literacy, numeracy, and subject knowledge from applicants, generic and personal attributes are increasingly sought after in the graduate recruitment process.

The predominance of these attributes in recruitment and selection also reflects employers' perspectives towards university education. UK businesses have expressed concerns that, despite high levels of theoretical knowledge, graduates are exiting higher education without the vocational and generic competencies required in the workplace. For example, the Association for Graduate Recruiters' 2016 annual survey found that a considerable number of employers believed their graduate intakes did not possess self-awareness (71%) and problem-solving skills (37%)<sup>19</sup>. Furthermore, while a large proportion of businesses valued communication, commercial awareness, and analysis and decision-making skills, they were much less satisfied with the prevalence of these qualities in

the graduate population<sup>20</sup>. Similar issues have been reported for interpersonal skills<sup>21</sup>. These satisfaction gaps have led to the development of employability initiatives, such as mentoring schemes and work placements, in universities. Employers are also increasingly involved in curriculum design through the provision of workshops and consultations on new courses<sup>22</sup>. Despite tensions between academics, policy-makers, and employers over the aims of higher education, employability concerns have undeniably reshaped the nature of university teaching in the UK.

## Economics Graduates' Skills and Knowledge: Employer Demand

Although the aforementioned literature relates to the entire UK graduate and employer population, a similar demand for generic skills has been expressed by the employers of economics graduates<sup>23</sup>. A 2007 survey of employers found that written communication and team-working were the two skills most commonly rated as essential or important for economics graduates. Of the 54 economics graduate employers surveyed in 2012, the communication of economic ideas and the analysis of economic, business, and social issues were perceived as very important by 80% of respondents<sup>24</sup>. These same skills were perceived as important by over 50% of the employers surveyed by the Economics Network in 2014. Members of the Society of Business Economists also considered analytical skills and the ability to explain economic concepts to non-economists to be essential in their graduate recruits<sup>25</sup>. Despite the specialist knowledge conferred by the discipline, the same generic competencies are valued in economics graduates as in the overall graduate population.

This is not to say that technical abilities are overlooked in the recruitment process: many of the employers surveyed thus far recognised the subject-specific knowledge and functional skills developed by the study of economics. Employers surveyed in 2007, 2012, and 2014 all ranked the ability to simplify complexity while retaining relevance and to organise, interpret, and present quantitative data as similarly important to communication skills<sup>26</sup>. More than 50% of employers surveyed in 2007 also believed that an understanding of incentives and the microeconomics of decision-making were essential or critical in the workplace<sup>27</sup>. Standard macro and microeconomics, as well as an understanding of data sources and data-handling, were considered essential by a large proportion of members of the Society of Business Economists<sup>28</sup>. However, it is the application of this content, rather than its intrinsic value, that is sought after by employers<sup>29</sup>. Across all pre-existing research, employers have reiterated the need for graduates to apply core economic principles and theories to practical work situations. Accordingly, many of the subject areas that are highly valued by employers, such as data analysis and knowledge of economic policy, are those that can be most readily applied to solving real-world problems.

The employers of economics graduates thus occupy a middle-ground between those specialist occupations that require STEM subjects and more general sectors that employ students from any discipline.

While transferable skills and attributes are central to career success, disciplinary knowledge is valuable if it can be strategically applied in the workplace. Andy Ross, former Deputy Director of the Government Economic Service, and Ian Harwood, a Councillor at the Society for Business Economists, summarised this perspective in their contribution to the 2015 QAA Subject Benchmark Statement for economics. As employers' representatives, they exerted significant influence over the following section of the review committee's report:

**“From the employers’ perspective, the ideal economics graduate should be well-versed in economic theory, both micro and macro; possess highly-developed analytical skills; be able to apply economic concepts to practical, “real world” issues within the context of historically and internationally-comparative experience; be technically proficient in data analysis and knowledgeable about data sources. It is, in addition, very important that Economics graduates should have excellent communication skills, in particular the ability to explain economic ideas clearly to non-economists<sup>30</sup>.”**

## Employability and the Economics Curriculum

Undergraduate economics degrees are currently unsatisfactory in developing many of the qualities valued by employers. Although data analysis and IT abilities fared relatively well in terms of employer satisfaction, employers across all of the aforementioned surveys believed economics graduates' communication and application skills needed further development. For example, 40% of the employers surveyed in 2012 believed economics graduate appointees had 'not very high' critical self-awareness, followed by inadequate written communication skills and the ability to apply what had been learned in a wider context. Graduates' intellectual abilities were also subject to criticism, with survey respondents referencing graduate deficits in critical-thinking, ability to think strategically, and creative and imaginative powers<sup>31</sup>. Similar deficits in communication, application, and critical-thinking skills were referenced by over 20% of the employers surveyed by the Economics Network in 2014. Despite the high status of these degrees in the labour market, graduate skill shortages remain widespread in the economics profession.

These skill shortages can be directly related to the criticisms made by economics students when evaluating their degree programmes. The Economics Network's 2010 survey of students across 67 economics departments found that, although the majority of students were satisfied with their course, 23% disliked the teaching, 20% disliked the content, and 10% disliked the assessments associated with their degrees. Students particularly focused on poor quality teaching, overly theoretical content, and a lack of continuous, diverse assessment methods. Furthermore, while more than 75% of respondents believed that their courses broadly met their expectations, many noted that they would benefit from more real-world relevance and enthusiastic, engaging

pedagogy<sup>32</sup>. These findings were reiterated in a similar survey of 1440 economics students carried out in 2012. For example, although 70% of students believed their course content to be largely relevant to the real world, many also thought the theoretical nature of their classes could be improved by the inclusion of applied, practical examples. Respondents also valued more interactive teaching methods: workshops, group work, and working informally with other students were found to be increasingly important to students' learning experiences<sup>33</sup>. Finally, despite the importance of applied data analysis skills in the labour market, approximately a quarter of students in both surveys stated that their courses did not incorporate economics software.

The aforementioned shortcomings in economics teaching have been further corroborated by alumni surveys which, although relatively scarce and outdated, further elicit the connection between university curricula and graduate employability. For example, in a 2004 survey of 138 alumni, respondents mentioned that their courses were too theory-based and lacked practical application<sup>1</sup>. Over 40% of alumni stated their degrees did not help them develop the communication skills, creative and imaginative powers, and critical self-awareness suitable for their current job<sup>34</sup>. An updated version of the survey in 2008 further showed that only 37% of 600 surveyed alumni believed their ability to communicate economic ideas had been developed 'to a great extent' by undergraduate study. Similar concerns were also expressed about the development of econometrics, team-working, and presentation skills<sup>35</sup>. In their 2012 survey of 500 government economists, Paul Anand and Jonathan Leape illustrated that a greater focus on the practical application of theories would benefit economics graduates seeking work in the public sector. Economists in this survey expressed a demand for additional training in gathering and learning from data, interpreting applied econometric work, and presenting economic analysis to different audiences<sup>36</sup>. Economics alumni are thus in agreement with both employers and students that undergraduate economics degrees are currently too narrow and theoretical for the workplace.

These skill and knowledge deficits have sparked demand for a reformed economics curriculum. Although the employer surveys undertaken thus far have focused on graduate attributes rather than the curriculum itself, many respondents mentioned particular university subjects and assessments that would better meet employers' needs. For example, numerous employers believed that a greater concentration on case studies would help students apply their economic knowledge to real-world problems<sup>37</sup>. Student respondents in the Economics Network's 2010 and 2012 surveys found the use of games, experiments, and role-play particularly useful in seminars and believed that the teaching of maths and statistics would benefit from more applied problem-solving<sup>38</sup>. Similarly, alumni participants in Anand and Leape's 2012 survey stressed the use of practical examples in teaching, while others mentioned specific topics, such as public economics, and methods, such as cost-benefit analysis, that would serve the work

<sup>1</sup> Although Rethinking Economics recognises that these two surveys are relatively outdated, to the best of our knowledge these are the only two instances in which economics alumni in the UK have been broadly surveyed on their opinions, beliefs, and criticisms towards their university degrees.

of a professional economist. There has also been broad support for a greater focus on economic history. Many of these suggestions were further referenced at the 2012 Bank of England conference entitled “Are graduate economists fit for purpose?” during which employers stressed the need for more economic history, international context, and practical quantitative methods in undergraduate degrees<sup>39</sup>.

Similar to the employability initiatives being established across all HE institutions, employers’ concerns are being borne out within university economics departments. The 2015 QAA Subject Benchmark Statement for economics, which defines what is expected of a graduate in the subject, placed increased emphasis on the use of evidence, economic history, and policy developments in economics curricula<sup>40</sup>. The CORE project, an online open-access textbook designed in 2013 to be used in a revised economics curriculum, illustrates the demand for teaching to be more problem-focused, interactive, and grounded in real-world, historical knowledge<sup>41</sup>. Some UK universities, such as Kingston and Goldsmiths, have also implemented fundamental curriculum reforms that take a critical, pluralist approach to economics teaching informed by real-world issues<sup>42</sup>. While these changes were not developed solely in response to employers’ needs, the fact that they will better prepare graduates for the workplace has undoubtedly added momentum to curriculum reforms.

## Research Purpose and Questions

Our literature review has shown that employability concerns have become increasingly important to economics teaching in much the same way that they have reshaped the entire UK higher education system. As graduates have been found wanting in the specific skill and knowledge areas demanded by employers, universities are under increased pressure to incorporate employability into course design and teaching. Public discourse surrounding HE provision and the economics discipline indicate that these trends are likely to accelerate in coming years. It is thus of primary importance that students, academics, and policy-makers have a more holistic understanding of employers’ perspectives than is currently available from pre-existing survey research. Furthermore, in their focus on graduate skills and knowledge, many of these surveys fail to comprehensively investigate the causal connection between the economics curriculum and graduate skill shortages. These issues led to the development of the following research questions:

- 1. What are the skills and knowledge required by the employers of economics graduates?**
- 2. What are employers’ perceptions of the skills and knowledge of recent economic graduates, both in the recruitment process and employment?**
- 3. To what extent do employers believe an undergraduate economics education is equipping students with the skills and knowledge required in the workplace?**

## Methodology

### Sample Selection

The selection of interview participants was predicated on a combination of practical, methodological, and purposeful concerns. Ideally, the interviewees represented in the sample would capture the broadest possible range of characteristics found to influence employers’ perceptions and practices towards economics graduates. These include economic sector, organisation size, and geographic region, as well as political orientation due to the political and ideological debates surrounding the economics discipline. However, due to strict time and monetary constraints, it was necessary to utilize Rethinking Economics’ existing contacts with employers and associations to arrange interviews. In recognizing the self-selection biases associated with this convenience sampling method, interview participants without a prior connection to Rethinking Economics or other associated organisations were contacted via email and telephone to enhance sample diversity. This resulted in 12 interviewees in our final sample (67%) being referred by convenience methods, with the remaining 6 interviews (33%) organised to enhance sample variation. Particular emphasis was also given to well-known organisations likely to be recognised by a national student audience.

The selection process resulted in a final sample of 18 interviewees. As shown in our sample demographics (see Appendix 1), large organisations with 1000 or more employees were disproportionately represented, as were entities located in Greater London and the Public Administration sector. These size, regional, and sectoral concentrations broadly reflect graduate employment destinations, with the government being the largest employer of UK economists and graduate recruitment predominantly originating from London-based large employers<sup>43</sup>. The sectoral distribution of our sample also partially reflects the employment destinations of economics graduates, with typical employers being financial institutions, not-for-profit organisations, consultancies, government departments, and think-tanks<sup>44</sup>. However, the relative dearth of financial institutions and more conservative political organisations is a particular downfall of this study. Further research should focus on an extension of the subsequent findings to a larger subset of the economics employer population.

There was also variation amongst interview participants in terms of professional background and occupational profile. Although 16 of the 18 participants held some form of directorial, managerial, or executive role within their respective organisations, personal interaction with recent economics graduates was heterogeneous. While 17 of the 18 participants had worked alongside economics graduates, the nature and frequency of these interactions were contingent upon their occupational sector and job role. For example, while one interviewee had a direct role in the recruitment and supervision of economics graduates, another only worked with economics graduate employees on an ad-hoc basis. Furthermore, due to the high-level positions of the interviewees, it was common for participants to work directly with PhD and master's-level graduates rather than those with solely undergraduate degrees. It is thus important to recognize that the findings of this report are not generalizable to the entire population of economics graduate employers nor are they the official views of the organisations included in the sample. Rather, our findings aim to supplement pre-existing research by providing a more comprehensive understanding of the personal experiences, perspectives, and viewpoints of interviewees towards economics graduates in the workplace.

Although extensive demographic information was not collected from interviewees, it is also worth noting that the final sample was largely biased towards male participants. Of the 18 employers interviewed, only 4 (22%) were women. This gender bias is partially reflective of the economics profession as a whole, with women being underrepresented in UK economics departments and research institutes. These gender biases begin at the undergraduate level: UK economics courses have a notably lower proportion of female students than business, mathematics, or finance degrees<sup>45</sup>. Academic economists are also disproportionately male, with gender gaps in tenure, promotion<sup>46</sup>, and job satisfaction rates found to be larger than those in other social science departments<sup>47</sup>. Accordingly, the Royal Economic Society's Women's Committee found that, despite slow progress in female representation in economics departments, women made up only 28% of academic economists at 64 UK institutions surveyed in 2016<sup>48</sup>. The gender bias amongst our interviewees may thus be broadly indicative of a male-dominated economics workforce. However, in recognizing the need for greater diversity and inclusion in the profession, as well as recent research showing gender differences in economic preferences<sup>49</sup>, further research would benefit from a more gender-balanced sample.

Upon consenting to the interview process, the interviewees were asked if their organisation name could be included in the final report. Of the consenting interviewees, their organisations are as follows<sup>2</sup>:

- **Bank of England**
- **Compass Lexecon**
- **European Bank for Reconstruction and Development (EBRD)**
- **European Trade Union Institute (ETUI)**
- **Financial Conduct Authority (FCA)**
- **Food Standards Agency (FSA)**
- **Global Labour Institute UK (GLI UK)**

- **Government Economic Service (GES)**
- **International Labour Organization (ILO)**
- **New Economics Foundation (NEF)**
- **Office of Gas and Electricity Markets (Ofgem)**
- **Organization for Economic Cooperation and Development (OECD)**
- **Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA)**
- **SRS Ltd.**
- **Vivid Economics**
- **WSP UK Ltd.**

## Interview Design and Data Collection

In order to obtain a more exhaustive understanding of employers' perceptions, qualitative interviews were chosen as the primary research methodology. In terms of interview design, it was determined that a semi-structured, open-ended format would yield sufficient comparability whilst still allowing the interviewers to access participants' unique perspectives. This semi-structured design allowed the interviews to be tailored to participants' personal and professional backgrounds. For this reason, the interview schedule began with descriptive questions concerning the nature of the participants' interactions with economics graduates and the type of graduate work performed in their respective workplace. Open-ended exploratory questions were then adjusted during the interview process to fit these responses.

The open-ended questions largely focused on the extent to which the participating employers believed an undergraduate economics education prepares graduates for work at their organisation. In particular, respondents indicated any specific skill/knowledge areas they thought were being developed/neglected by universities and any additions they would make to the university economics curriculum. Participants were also asked to reflect on the aspects of their personal education that most benefited their careers in an effort to illustrate academic areas that enhance workplace performance and elicit any pre-existing biases the participants may have had towards curriculum reform. The interviews were designed to investigate the causal connection between the university economics curriculum and those graduate skill/knowledge gaps found in the workplace (See Appendix 2). This is a considerable strength over previous survey research, which has largely focused on the skills and knowledge of graduates with only a secondary focus on university education.

The interview data was collected between July and September 2017 with the shortest interview lasting 21 minutes and the longest 54 minutes. The majority of interviews were completed in person at the participants' places of work or a quiet public location. In those cases where in-person data collection was impractical – for example, due to international office locations – interviews were conducted on the phone.

<sup>2</sup> The opinions, views, and attitudes expressed by the interview participants do not represent the official views of these organisations.

All of the interviews were recorded and transcribed, with interviewees given the option to review these transcripts upon completion. Express consent was obtained for the use of direct quotations and organisations names (see Appendix 3). Although the organisation names associated with the direct quotations have been excluded to ensure participant anonymity, the type of organisation that employed the interviewee has been included to enhance the comparability of findings and illustrate the applicability of emergent themes.

## Results

The interview data illustrated three areas that a broad cross-section of employers both valued highly in the workplace and believed were insufficiently developed by the undergraduate economics curriculum. These included the application of economic knowledge, communication skills, and intellectual abilities.

## Application of Economic Knowledge: Real-World Problems and Data Analysis

The most prominent theme that emerged from our interviews was the importance placed by employers on the application of economic knowledge to real-world problems. This application orientation included both the use of theory to develop workable solutions to organisational problems and graduates' propensity to utilize quantitative methods to complete data analyses. While the assessment of core economic knowledge in recruitment processes was largely confined to those employers who hired graduates to economist-type roles, the importance of application and analytical methods was emphasized by participants from a range of industries. This is likely due to the over-representation of government and professional organisations in our sample, all of which undertake technical analyses for a range of public, private, and third sector clients.

**"It's important that graduates have had some hands-on experience of trying to work through the use of those [economic] tools for a practical question. So, when the rubber hits the road how do you go from some sort of perfect way of answering something to the pragmatic way that understands the intricacies of the problems involved, tries to use real world data, understands the human priorities that are involved there and things like that."**

**Consultancy Employer**

**"What we're trying to do all the time is we're faced with a problem and it's how do we actually use economics to identify what could be done over the options."**

**UK Government Employer**

**"It's not a high level of quantitative skills, you don't need to be an expert in all the statistical methods, but as I say you do need to be able to test the sources. That is actually not universal...You will need to be able to assess if what somebody is telling you is well-founded in the evidence they're giving but that isn't really subject specific."**

**Research Institute Employer**

**"Ability to find and manipulate data is really important... I guess applied data analysis skills basically, where you're not actually talking about theory or abstract problems, but just kind of day-to-day data analysis and manipulation. You might actually find that somebody who's done a master's in social research methods might actually be better equipped in that than an economist who's done a theoretical econometrics course with lots of theory but hasn't actually had to go out and find data and do stuff with it."**

**Think-Tank Employer**

Despite the importance of real-world application skills for graduate employability, many of the interviewed employers believed these attributes to be insufficiently developed by an undergraduate economics education. Similar to findings from survey research, employers made a distinction between the knowledge of economic concepts and theories, which was thought to be well-developed by an economics degree, and the ability to apply these ideas in a practical setting. The absence of real world application was highlighted for both theoretical economic knowledge and analytical methods, with the former being insufficiently related to contemporary issues and the latter failing to develop the data handling and manipulation skills required in the workplace.

**"Well, from our perspective in terms of what we're looking for it's the application of economic theory to real-world problems. Sometimes when we're interviewing candidates it's clear that they know a lot of economic theory and they can talk about theoretical concepts and they can use all the right jargon but they're not able to apply what they've learnt to a real-world problem we present to them. So, I think that seems to be the main deficit."**

**Consultancy Employer**

“In terms of the technical curriculum of economics that is taught in university, I’m aware that there is a growing critical understanding that the way it’s taught in universities is not reflecting the real world...In other words, not giving enough space for the simple things such as ‘what are the underlying causes of the banking crisis?’...These are really important things to understand and you get a sense from graduates that they weren’t really given sufficient space to understand those issues.”

#### Labour Organisation Employer

“I think that one of the really important shortfalls in economics degrees is that very often people who do economics degrees fail to think about how economics as a discipline is going to directly impact on particular groups of society. There’s a big criticism of many economic degrees that they, in aggregating an analysis, don’t acknowledge the very individual and direct impact that their decisions have, or their recommendation for decisions have on particular groups of society.”

#### Research Institute Employer

“I think economics in theory should be quite real-worldy, that was not my assessment of economics when I studied it, which was highly theoretical in many ways, but I think

real world economics is clearly useful for the analysis of both micro-industries and sectors but also macro factors in terms of inflation and employment and other things.”

#### Financial Institution Employer

“undergrad economists will typically have a very strong mathematical skill-set, know how to do complex algebra and optimization problems but actually might not be so good at doing simple descriptive statistics of macroeconomic time-series which actually is the kind of skill that we need much more than being able to solve optimization problems or do other complicated regressions.”

#### Think-Tank Employer

“Something that [economics graduates] lack, that they need to be trained on is usually econometrics packages and use of and understanding manipulation of data... Which I think should be compulsory for every economist to get a better understanding of how the data is being built and how you should interpret and the trust that you should put in the data. This is usually something people are not very experienced at.”

#### UK Government Employer

## Generic Skills: Communication of Economic Ideas to Non-Economists

It was also common for employers to mention the application of economic knowledge in conjunction with graduates’ communication skills. While this theme included both written and verbal communication, there was a greater focus on written work due to the research-based nature of graduate workjobs in these organisations. While the prominence of these skills broadly reflects the priority given to generic competencies within the entire graduate employer population, the technical nature of economic analyses requires a particularly demanding set of communication abilities. This is illustrated by employers’ focus on the communication of economic concepts and analyses to non-economist audiences, a requirement that emerged regardless of occupational sector, organisational size, or type of graduate job provided by their organisations.

“in particular [we’re] looking for the ability to be able to explain economics to people who aren’t economists. It’s the ability to explain economics concepts without relying on economics jargon, using plain English, and being able to explain the intuition behind economic theory.”

#### Consultancy Employer

“Another important skill is communication, both written and oral, but the ability to translate in a non-technical

way your findings to policy people or professional people who don’t have the ability to understand complex terminology.”

#### UK Government Employer

“The ability to work quickly, the ability to work with minimal supervision, good writing skills, not just being able to write in an academic way but being able to write, for example, education materials that a typical [client] will understand and appreciate. Very important is the ability to give presentations, to be able to lead workshops and discussions, have good facilitation skills.”

#### Labour Organisation Employer

“It’s almost like writing an article for the Economist, the newspaper: reasonably short with a couple of charts, fairly grounded in sound analysis but being accessible to a non-economist, because few organisations that you may work at, like the International Monetary Fund, you will probably be producing your outputs for trained economists. In most other places...the ultimate consumers of economic analysis are not economists. It is the job of the economist to make it rigorous but also accessible to people.”

#### International Organisation Employer

“I think writing well is a very important skill in a think tank. You have to be able to write clearly. For the general public as well as for more sophisticated audiences, I’m not sure how many mainstream economics degrees really teach students how to write clear essays.”

### Think-Tank Employer

Similar to the deficits associated with the application of economic knowledge, employers expressed that there was a gap between the importance of this form of communication in the workplace and the skills developed by economics degrees. These findings thus corroborate those from the literature review that application and communication skills are largely underdeveloped by the current economics curriculum.

“Your academic education tends to emphasize rigour of thinking, depth of thinking, which is all very good, but it doesn’t always emphasize as much as it should clarity of communication and so we spend a lot of time working with graduates on clarity of communication. Actually, if there’s anything that I think the education system fails in which it should produce, and it doesn’t, it’s making sure that

people come out being able to clearly convey their ideas, thoughts, conclusions of work. That’s probably where I’m most frustrated with the system.”

### Consultancy Employer

“I think an economics degree could do more to help with those softer skills around presenting, communicating complex ideas, speaking in front of people...That’s where you have to rely on extracurricular activities or work experience to deploy those skills. Which is not necessarily a bad thing, there’s only so much an economics degree can do, but I think there could be more onus on that.”

### UK Government Employer

“There is an overwhelming focus on content i.e. the ability to memorise and learn information and pass examination, and not a strong focus on the core competencies that people look for in the workplace... Verbal communication, so, presentations but also the ability to get concepts across in a really pithy and understandable manner... there’s a lot of un-learning that has to happen and then re-learning.”

### Research Institute Employer

# Intellectual Abilities: Intellectual Curiosity, Mental Adaptability, Critical-Thinking

Similar to trends found in the entire UK graduate labour market, many of our interviewees placed particular emphasis on the intellectual abilities of graduates. While some of these attributes were organisation-specific, with employers looking for a graduate mind-set that aligned with their company, the necessity for intellectual curiosity and openness was emphasized by a variety of participants.

“What helps in general, I think, is some intellectual curiosity applied to data. If people have worked with data, data-sets before, it’s not really about knowledge of the software, it’s really about taking a data-set, playing around with it, trying to understand if something comes out, strange, varied...I think that’s very important. The other thing that is very important is general intellectual curiosity applied to economics...thinking a little bit about how what they learn at university is applicable or not applicable to the debate of the day”

### International Organisation Employer

“we do specifically look for that intellectual curiosity. We quite often ask graduates what they’ve last read as a way to tease that out, that’s very important to us I think, that even if somebody’s had a mainstream education, they’ve engaged in self-directed learning to broaden their knowledge of economic thinking”

### Think-Tank Employer

“But for me, what is important is openness...the sort of work that you’re exposed to in universities is quite different from what we’re dealing with here in the policy world...So, an inquiring mind should not be happy to just apply an existing model or framework, but it should be thinking and experimenting with some of these new approaches. Could they give us better answers to the policy questions that we face? So, openness and interest and a willingness to experiment I think are very important things that I would look for.”

### International Organisation Employer

“We want people to have an openness to different ways of assessing project viability. That may only come with experience, but on the other hand, it would be useful if graduates, when they first arrived, had a breadth of tools so that we can...ask their opinion about how we might go about getting the benefits valued, and also the costs valued, in such a way that we can make comparisons legitimately.”

### Consultancy Employer

Similar trends emerged with reference to graduates’ ability to think critically about economic theories, methods, and alternative perspectives in the workplace.

“Sometimes the work that we do, although we describe it as economics, it’s not really economics, it’s critical thinking. So, often what we’re doing is clients come to us with a view of the world which is rather unstructured and anecdotal and we try to structure that...Often it’s taking some rather anecdotal or not completely thought-through ideas and applying critical-thinking so we can structure that into a coherent argument in terms of what evidence do we need to back up that argument.”

#### **Consultancy Employer**

“It’s important to, as I said earlier, have the skill to see the different perspectives, to understand that there is no objective truth in this field. Whatever the [organisation] is doing, in terms of technical work, is always a politically influenced thing...I think it’s important to then keep the balance, on the one hand, between yes, being diplomatic, but, on the other hand, also not shying away from bringing in perspectives which are not so well-rooted in the dominant discourse.”

#### **Labour Organisation Employer**

“there’s also the personal skills and competencies that I think any employer would find valuable. So, the ability to communicate about research, manage effectively your time, the ability to understand viewpoints different to their own, engage critically with them, the ability to respect other people’s values, views, and opinions.”

#### **Research Institute Employer**

Unlike graduates’ application and communication skills, there was slightly more variation amongst employers in terms of how well they believed the current economics curriculum developed these intellectual abilities. While some mentioned that those graduates that made it through their recruitment and selection procedures possessed these skills, others were more broadly critical of the economics discipline for being overly narrow and restrictive. This may be because these intellectual abilities are deemed more person-specific than technical and generic skills and are thus less amenable to development in a university setting.

“one thing we find is it’s that sense of critical thinking which doesn’t always come through in economics degrees because, and I know I’m generalising, but there’s a lot of assumptions or knowledge that aren’t necessarily challenged quite early on in the economics degree. Which, I think, does make a better government economist if you’re able to critically think through, for example, whether that neoclassical welfare framework is appropriate or not.”

#### **UK Government Employer**

“Economics graduates tend to be quite linear in their thinking. Therefore, there is a sort of resilience aspect, a complacency within economics graduates to think that because they’ve understood something on paper, why is the actual practical application of these things so damn tough? Well, it’s partly because what they’ve learnt is not actually relevant to the much more ambiguous, holistic, 360 thesis. So, I think there’s a sort of frustration that an economics graduate may develop in their career, which may hinder their career, which is they feel like they have moved so far away from the nice box of their learning into a very messy place.”

#### **Financial Institution Employer**

“Here I think we have a bit of a problem because we hope that new graduates will be a bit more open and would’ve been exposed to the latest methods and the latest thinking, what we tend to find is that they tend to be even more institutionalised than some of the people who are more experienced here...So we’ve been a little bit surprised sometimes when we’ve tried to have discussions and it’s supposed to be new thinking, and we hear re-hashed, very old thinking that in many cases is going out of favour and is being increasingly challenged.”

#### **International Organisation Employer**

“I don’t think we’re having a problem with over-narrowness. I think people are generally coming with multiple perspectives and theoretical approaches to economics... Most of the graduates that we hire, or that I see by way of interviews, have that core [economic logic] and most of them have gone beyond it in thinking about where that core understanding of economics reaches certain limits and at least have a sense of some other ways of thinking that would supplement it.”

#### **Consultancy Employer**

The variation in these responses is further reflective of employers’ diverse perspectives on pluralist economic thinking in undergraduate degrees: those respondents that tended to be more traditional in their understanding of economics were less likely to regard the undergraduate economics curriculum as overly narrow. Views towards pluralism were also influenced by employers’ political views, education backgrounds, and personal histories. This is somewhat understandable in light of the nature of these topics, with heterodox economic thinking being increasingly politicized and controversial.

“I think what is quite important and what I think is not being taught enough from my experience with economics graduates is the whole area of labour market institutions, for example... That is something, I think, is important to have in order for people to have a balanced, comprehensive overview of economics; and the same goes for collective bargaining. My impression is that, as part of the whole neoliberal discourse, everything related to trade unions and collective bargaining has been called negative, outdated...whereas the important role of collective bargaining, for example in reducing social inequality, which now even the IMF is acknowledging, hasn’t really trickled down into the economics programs.”

#### **Labour Organisation Employer**

“In terms of the economics that we do here, which is applied microeconomics...my view is in that area the curriculum does reflect a diversity of views. It may vary from university to university but one extreme of the views in industrial economics is what’s called the Chicago school, which you might describe as the very neoliberal attitude that everything works and there’s no role for government to intervene. But you don’t really find that, that view is sort of taught as ‘that’s one view’ and all the countervailing theories are kind of presented, I mean that’s my experience...and that’s the impression that I get from the people that we recruit. So, in that area I think it does happen.”

#### **Consultancy Employer**

# Employers' Recommendations for the Economics Curriculum

Employers' suggestions for curriculum changes largely focused on those areas where they had recognized graduate skill and knowledge deficits. The necessity for undergraduate degrees to integrate more real-world problems, theoretical application, and data analysis was the most prominent recommendation made by employers, with the synthesis and communication of these findings being an additional way for graduates to upgrade their generic abilities. An increased focus on application in teaching methods was also seen as useful in developing the critical-thinking and intellectual curiosity required in the workplace.

**"If undergraduate programs could expose students to specific policy challenges, and I know there is some of that, but there could be even more. Interacting with different perspectives on problems. So, for instance, if you take the issue of regulation. What would different strands of economics say about that? What would the institutional economist say about it or the ecological economics background, what different perspectives would they have on these policy issues. So, just greater pluralism and application to policy questions I think would be the most useful for [us]."**

**International Organisation Employer**

**"It would be useful if they had a bit more of the how to actually use econometrics rather than the technical, basic how to do econometric proofs...Also, thinking about a couple more real-world issues would also be useful, thinking about how markets actually work."**

**UK Government Employer**

**"I'd basically make a lot of it more applied. I'm always slightly astonished you can go through three years of an undergrad learning macroeconomics without really knowing what GDP is or even knowing where to look on the internet to get GDP data...I would also build in some components of communicating economics to different audiences and how to have an impact on them... So, I would ideally build in some form of experience of, as I said, maybe even trying to get people to write blogs, pieces for different papers or something like that. Try and get people used to writing in different styles for different audiences."**

**UK Government Employer**

**"I think the emphasis on explaining things and doing things in technical way but then explaining it in a fairly non-technical way to a sort of half economist audience would be great...Maybe taking some data-sets, crunching them, writing essays on that rather than writing essays on IS-LM economics and non-accelerating interest rates and employment and so on."**

**International Organisation Employer**

**"It's a teaching method that involves students researching something for themselves. That has to be assessed to some extent or else they won't do it, but the important point is we come to it open-minded... anything that involves students going, doing some research for themselves on something that they cannot conceivably find done in the same way somewhere else."**

**Research Institute Employer**

Although not deemed necessary in the graduate recruitment and selection process, economic history and the history of economic thought was seen as particularly useful in developing graduates' mental adaptability, intellectual openness, and problem-solving abilities. In fact, in addition to the three emergent themes above, the recognition that history should be more greatly integrated into economics teaching was a notably frequent suggestion made by the employers in our sample.

**"Is there anything specific that's missing?...Again, it's going to depend very much on the course. A bit more history... So, the analysis of cases, historical cases, through different types of sub-disciplines, that would be very valuable because it would help people to have more openness to different types of appraisal, perhaps."**

**Consultancy Employer**

**"As economics graduates do, they will either read a Mankiw or Samuelson textbook, I would argue that reading Keynes, Smith, Marx, whatever, will give a much better sense of 'What's this thing that we're actually trying to deal with about? What is the purpose? What's the objective? Economics goes way too quickly into circular flow diagrams or IS/LM pieces or NAIRU trade-offs or Laffer curves or whatever it is and it's all just given to you without any sense of context... I would say that first autumn term, there's not going to be a graph, a number, a formula in sight, but you're going to basically go and do history, but you're going to do history in the sense of reading people who were in the past but have a large amount to tell us about how economies are run."**

**Financial Institution Employer**

**"On the ideas side there needs to be a lot more, and it should be mandatory. I don't think an economist who hasn't read the classics, I think it's really deficient... economic history too, history and looking at the evolution of economies and looking at these issues over the long term is quite important."**

**International Organisation Employer**

**"I also found what was particularly helpful was studying economic history...I personally find it very helpful to have that knowledge and that background because a lot of the same issues keep occurring and a knowledge of what**

went wrong in the past and how has the policy response, in particular, helped or exacerbated the problem is actually really helpful in trying to think about some of the problems we're dealing with today...that is actually something that we're trying to encourage a bit more of within organisation name]. Precisely because we see the value of people knowing more about the history of economics and also the history of the economy."

**UK Government Employer**

Despite the diversity of opinions expressed towards [critical-thinking and openness, there was widespread agreement that the inclusion of historical perspectives would benefit graduates' intellectual abilities regardless of how well they are currently developed by undergraduate economics degrees.

## Analysis and Discussion

Our interviews have corroborated findings from pre-existing research that whilst employers value application, communication, intellectual openness, and critical-thinking skills, they also perceive these competencies to be under-developed in the economics graduate population. More importantly, interviewees believed that these issues have arisen not due to an inherent deficit in graduate abilities the quality of graduates, but from insufficient content, methods, and assessments within university economics curricula. This was particularly the case for application and communication skills, with participants from a range of industries suggesting curriculum reforms that would augment these abilities. Many of these suggestions constitute relatively somewhat minor alterations to pre-existing economics courses, such as teaching methods and research-based coursework, that could be implemented relatively quickly by university departments. In illustrating the causal connection between graduate skill/knowledge deficits and economics teaching, these findings indicate that there are viable, straightforward mechanisms through which universities can enhance the employability and success of economicstheir graduates.

Contrastingly, there was slightly more variation in employers' perspectives towards the development of intellectual openness and critical-thinking skills in economics teachingdegrees. While some interviewees were highly critical of the unquestioning, institutionalised nature of economics teaching, others believed that this was not a significant problem for those graduates that came through their recruitment processes. This variation was partially due to the personal nature of these graduate attributes, with qualities such as curiosity being difficult to develop through university teachinginstruction. It is also reflective of the contentious nature of orthodox economic thought, with differing opinions towards economic pluralism emphasizing the disputed nature of the subject. Notwithstanding these discrepancies, the history of economic thought and economic history were broadly viewed as beneficial in developing a more contextualized undergraduate economics education that befits the complexity and flexibility of the workplace. While there may beremains a lack of consensus surrounding the importance of Ecological or Institutional economics in undergraduate degrees, employers agreed that studying the classical economic thought and policy from which these heterodox schools emerged is useful in an employment setting.

While these findings have provided a more comprehensive understanding of employers' perspectives and views towards economics teaching in universities, we also recognize the methodological issues associated with this study. Our reliance on convenience sampling is particularly problematic, in that our respondents may have been biased towards curriculum reform. Although we attempted to overcome these issues by contacting employers with no prior affiliation to Rethinking Economics, better-resourced research should aim to employ a maximum variation sample. The dearth of financial sector organisation and politically conservative groups in our sample is a further methodological issueconcern, as many economics graduates are employed by these organisations. A follow-up study constituting interviews with private sector financial institutionsorganizations. In recognizing the role of diversity in promoting creativity and politically conservative research organisations is thereforeintellectual development within the economics profession, additional studies would also benefit from a promising avenue for further researchmore gender-balanced group of interviewees. Indeed, Rethinking Economics hopes to replicate this research at a later date with a larger and more diversified sample of employers. In spite ofDespite these methodological issues, we believe this report adds depth to the economics graduate employability literature which has, thus far, employed survey techniques. Furthermore, in showing that there are three particular areas for improvement within economics degrees, we hope these findings will fuelaid the curriculum reform movement. in fostering a more innovative and impactful economics education.

# Conclusions and Suggestions for Curriculum Reform

The 18 in-depth interviews included in this report have shown that the undergraduate economics curriculum is currently failing to equip graduates for the workplace. The necessity for a curriculum that is more application-oriented, practicable, and grounded in critical and historical awareness becomes particularly urgent when reviewing the organisations represented by our sample. With employers from leading private sector consultancies, national regulators, and international standard-setters, it becomes clear that the teaching of economics in universities has implications that reach far beyond students' ability to obtain a job after graduation. While we recognize that universities have become increasingly resource-constrained in recent years, our findings illustrate some implementable changes to the content and delivery of economics degrees that would better prepare graduates for the workplace.

- 1. Varied Subject Matter:** Rather than relying solely on standard economics textbooks that abstract from real-world issues, course content should integrate a wider range of learning materials, such as economics journals and news articles. Prior to studying models and definitions, students could read carefully crafted excerpts from a broader and more diverse range of economic texts. As referenced by many of our interviewees, a greater reliance on historical and classical economic literature would help develop those critical-thinking skills so fundamental to workplace performance. Providing perspectives from different schools of thought, such as behavioural, feminist, and institutional economics, would imbue students with an understanding of the political, contested nature of the discipline and foster intellectual openness<sup>3</sup>.
- 2. Inductive and Problem-Based Learning Methods:** Undergraduate economics assessments largely focus on multiple choice questions and the utilization of mathematical formulae, both of which fail to develop the application skills and intellectual curiosity valued by the employers in our sample. To overcome these problems, undergraduate teaching could apply an inductive, problem-focused approach in which empirical evidence and real-world issues are introduced prior to theoretical knowledge. For example, students could be given an economics policy problem and asked to undertake independent research to formulate possible solutions. Alternatively, students could debate these real-world problems using different economic approaches and methods, thus developing the analytical abilities and critical self-awareness required of professional economists. As active learning techniques have been found to disproportionately benefit female students in male-dominated fields<sup>50</sup>, these methods could also help diversify undergraduate economics courses<sup>51</sup>.

- 3. Peer-to-Peer Learning and Group Assessments:** A greater focus on peer-led discussion and debate within economics seminars would help students develop the communication skills necessitated by graduate employers. Rather than being passive recipients of economic knowledge, students could be encouraged to co-produce their education by organising discussions and writing blogs. This latter suggestion would require students to explain economic concepts in a non-technical way, which, as shown above, is useful in a wide range of workplace settings. A greater focus on group work, particularly group presentations and debates, has the dual benefit of augmenting students' communication skills whilst developing interpersonal abilities. As peer instruction has been found to help reduce gender gaps in academic achievement in physics, these techniques also offer promising avenues for reducing gender inequality in the economics discipline<sup>52</sup>.
- 4. Undergraduate Research Projects:** Many of our respondents stated that the completion of independent research projects was given particular emphasis in their graduate recruitment and selection procedures. As mentioned above, economics students have also been found to value the discipline's relevance to solving real-world issues and understanding economic reality. Encouraging students to write dissertations that focus on problems and methodologies of practicable – rather than solely theoretical – importance would align with both of these interests<sup>4</sup>. Alongside final year dissertations, modules could integrate smaller research projects that require students to engage with data and assess statistical sources. Managing these projects would augment students' intellectual curiosity, in allowing them to develop and address research questions, as well as their ability to synthesize complex ideas, in writing up the final version of these reports.

While these preliminary suggestions do not encapsulate the entirety of reforms that could be enacted by universities to enhance graduate employability, we hope they are illustrative of the kind of creative, pluralist approach to economics teaching that would benefit graduates, employers, and higher education providers. As mentioned in the literature review, some UK universities have already begun to develop a critical economics curriculum grounded in real-world issues and contemporary debates. However, these efforts are far from widespread within the UK higher education system. The findings from this report indicate that much remains to be done to ensure that economics graduates make a positive contribution both within and outside of the workplace. With over 20 student groups around the UK calling for a reformed economics curriculum, we hope this report illustrates that not only students, but their prospective employers, would benefit from economics teaching that is more fit for purpose.

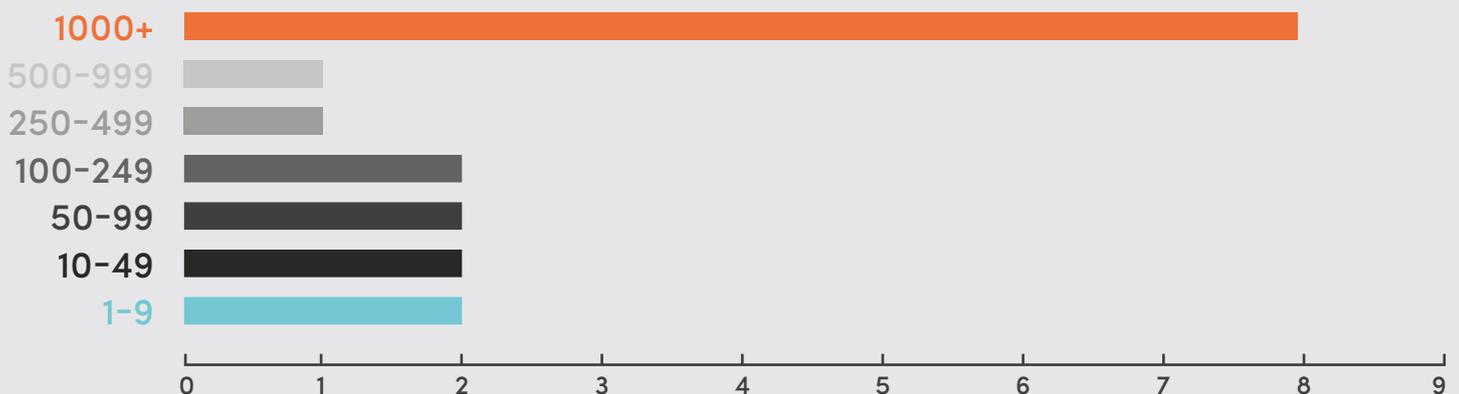
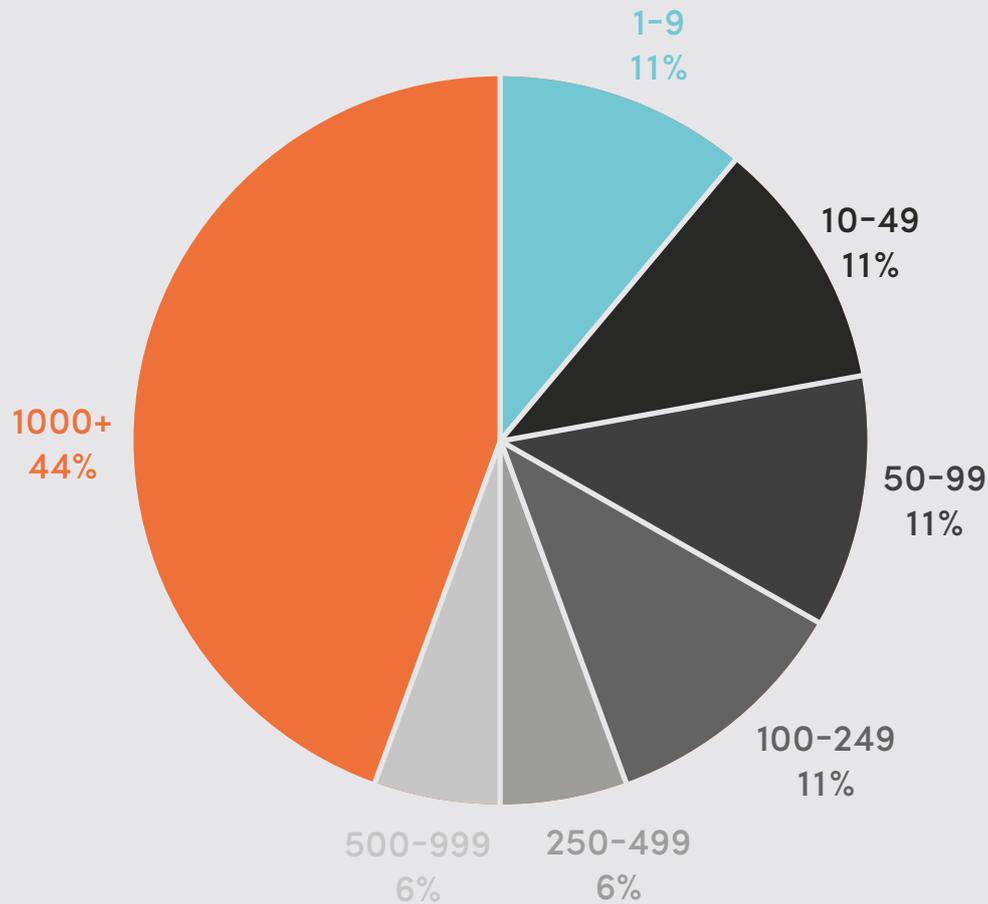
<sup>3</sup> This kind of accessible introduction to the 12 different approaches to economics can be found in *Rethinking Economics' Textbook*, *Rethinking Economics: An Introduction to Pluralist Economics*. For more information see: <http://www.rethinkeconomics.org/projects/rethinking-textbook/>

<sup>4</sup> These kinds of impactful research projects are currently being promoted by the National Union of Students through *NUS Dissertations for Good*, which partners students with organisations to collaborate on dissertations for social, economic, and environmental sustainability. For more information see: <http://dissertationsforgood.org.uk/about/>

# Appendix 1: Sample Demographics

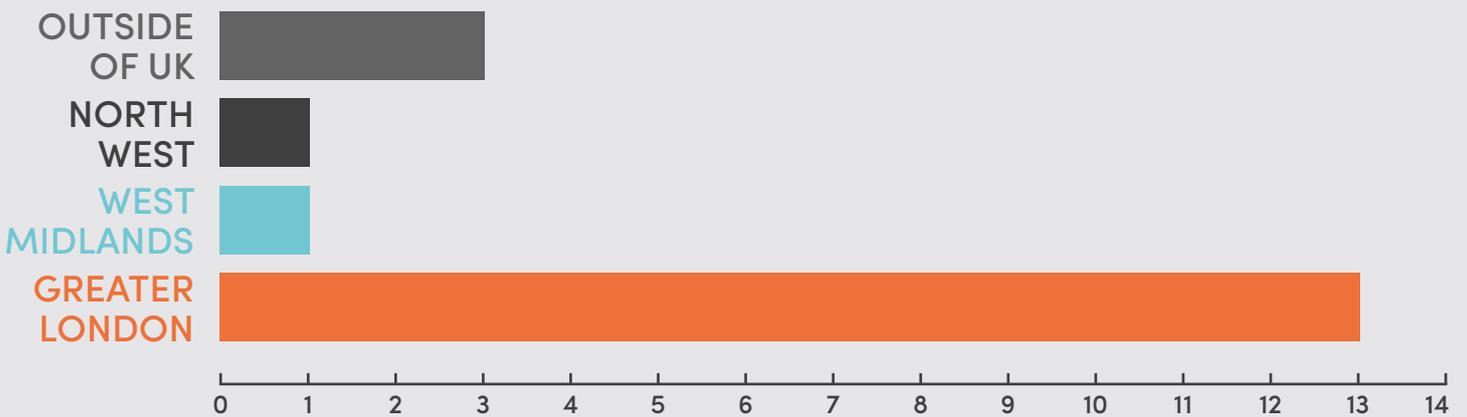
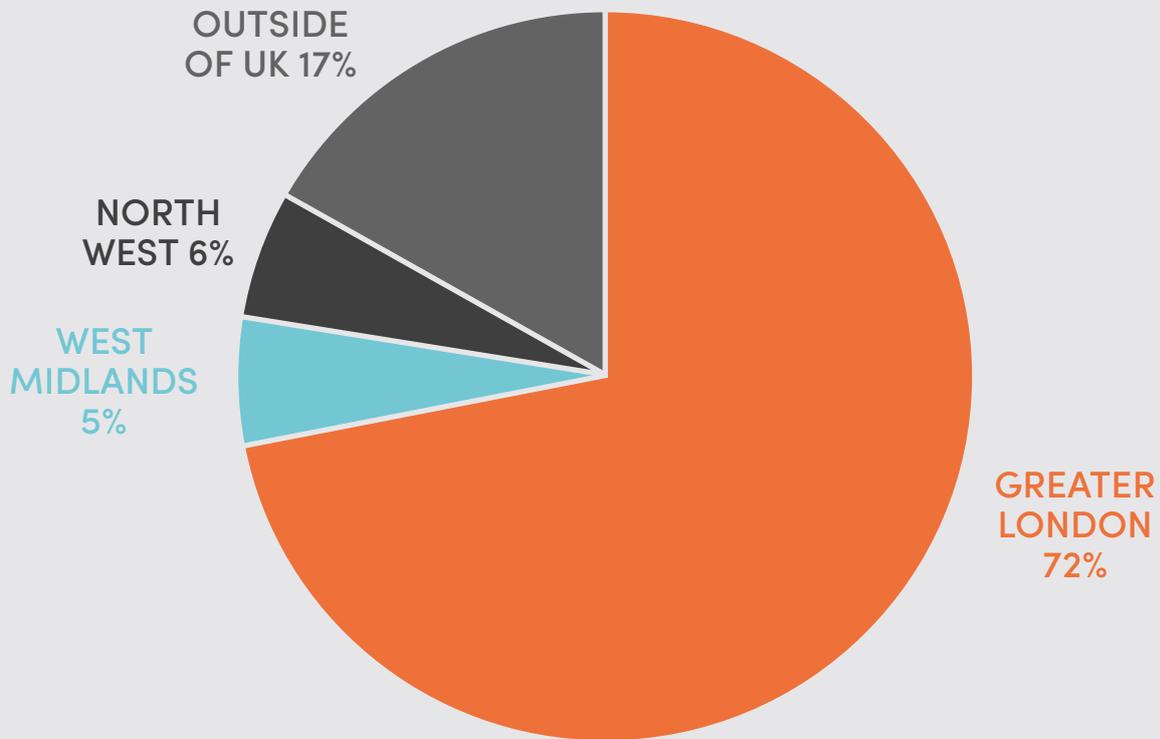
## Employer Size

Size Category*	Frequency	Relative Frequency	Cumulative Frequency
1 – 9	2	11.1%	11.1%
10 – 49	2	11.1%	22.2%
50 – 99	2	11.1%	33.3%
100 – 249	2	11.1%	44.4%
250 – 499	1	5.6%	50.0%
500 – 999	1	5.6%	55.6%
1000+	8	44.4%	100%
<b>Total</b>	<b>18</b>	<b>100%</b>	<b>100%</b>



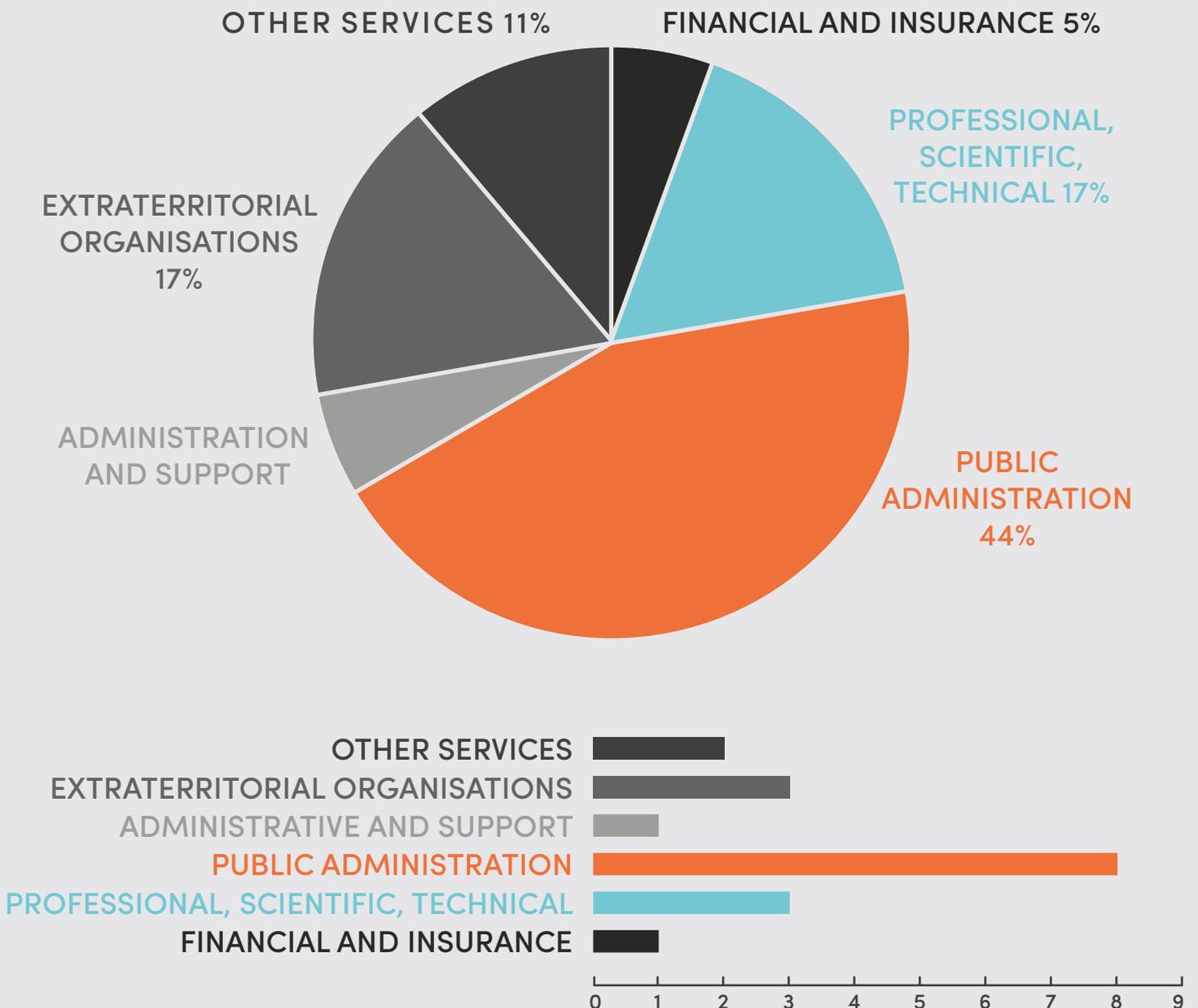
# Employer Geographic Region

Geographic Region	Frequency	Relative Frequency	Cumulative Frequency
Greater London	13	72.2%	72.2%
West Midlands	1	5.6%	78.8%
North West	1	5.6%	83.3%
Outside of UK	3	16.7%	100%



# Employer Sector

Sector	Frequency	Relative Frequency	Cumulative Frequency
Financial and Insurance Activities	1	5.6%	5.6%
Professional, Scientific, and Technical Activities	3	16.7%	22.2%
Public Administration	8	44.4%	66.7%
Administrative and Support Services	1	5.6%	72.2%
Extraterritorial Organisations and Bodies	3	16.7%	88.9%
Other Service Organisations	2	11.1%	100%



# Appendix 2: Interview Schedule

## 1. Opening Remarks:

- a. Interviewer greeting, introduction of Rethinking Economics
- b. Brief introduction of the interview's purpose, length, and topics covered
- c. Consent and Confidentiality: Provide with consent forms and reassure the respondent that their name and organisation will remain anonymous.

## 2. Descriptive Questions:

- a. Could you please give a brief description of your role and the way you interact with economics graduates at [organisation name]?
- b. Approximately how many economics graduates are employed by [organisation name]?
- c. What kind of jobs are economics graduates recruited for at [organisation name]?

## 3. Open-Ended Exploratory Questions:

- a. What knowledge and skills do you look for when recruiting economics graduates? (If recruiter)
- b. What knowledge and skills are important in a graduate job at [organisation name]? (If manager/director)
- c. Overall, would you say that an undergraduate economics education prepares graduates for work at [organisation name]?
- i. If no, what kind of procedures, if any, has your organisation enacted to help prepare graduates for the workplace?
- d. What specific skills and knowledge do you think are developed in an undergraduate economics education?
- i. Can you give any examples of how these skills and knowledge have benefitted graduates in the workplace?
- e. What specific skills or knowledge areas do you think are neglected in an undergraduate economics education?
- i. Can you give any examples of how these skill/knowledge deficits have hindered graduates in the workplace?
- f. What kind of changes, if any, would you make to the undergraduate economics curriculum to better prepare graduates for work at your organisation?
- i. Are there any specific subject areas, assessments, or skills you would like to see universities include in economics curricula?
- g. Could you please give a brief description of your personal education background and what aspects you think have most helped you in your career?

## 4. Closing Remarks:

- a. Debrief the participant on the next stages and how the data will be used
- b. Offer to send the participant a transcript of the interview for comments
- c. Offer to send the participant a finished copy of the report

# Appendix 3: Interview Consent Form

**Project Title:** Rethinking Economics Employers' Report

**Research Investigator:**

**Research Participant:**

The interview will take approximately 30 minutes. We don't anticipate that there are any risks associated with your participation, but you have the right to stop the interview or withdraw from the research at any time.

Thank you for agreeing to be interviewed as part of the above research project. This consent form is necessary for us to ensure that you understand the purpose of your involvement and that you agree to the conditions of your participation.

Would you therefore read the accompanying information sheet and sign this form to certify that you approve the following:

- 1. The interview will be recorded and a transcript will be produced**
- 2. If you wish to receive one, you will be sent the transcript and given the opportunity to correct any factual errors**
- 3. The transcript of the interview will be analysed by [researcher name] as the principal research investigator**
- 4. Access to the interview transcript will be limited to [researcher name] and the colleagues and researchers with whom she might collaborate as part of the research process**
- 5. Any summary interview content, or direct quotations from the interview, that are used in the report will be stored in the Rethinking Economics database**
- 6. The actual recording will be stored in the Rethinking Economics database with access granted to the project researchers**

All or part of the content of your interview may be used:

- 1. On the Rethinking Economics website**
- 2. By Rethinking Economics student groups in written form**
- 3. In other Rethinking Economics media i.e. spoken presentations and events**
- 4. In academic papers, policy papers or news articles**
- 5. In an archive of the project on the Rethinking Economics database as mentioned above**

# Confidentiality Agreement

Although your personal name will be anonymized, we hope to include the name of your organisation in our analysis and the published versions of this research. Please initial in the box below if you agree for your organisation name to be included in the analysis and final publication of this research report.

If you do not agree to the above statement, the name of your organisation will be kept strictly confidential and anonymized in the final publication of this research.

# Quotation Agreement

We hope to include direct quotations in the final publication of this research report. If you agree to be quoted directly, subject to your name being anonymized, and to such quotations being used in published documents pertaining to this research, please initial in the box below.

If you wish to review the notes, transcripts, or other data collected during the research pertaining to your participation, please initial in the box below.

By signing this form, I agree that:

**1. I am voluntarily taking part in this project. I understand that I don't have to take part, and I can stop the interview at any time**

**2. The transcribed interview or extracts from it may be used as described above**

**3. I have read the information sheet**

**4. I can request a copy of the transcript of my interview and may make edits I feel necessary to ensure the effectiveness of any agreement made about confidentiality**

**5. I have been able to ask any questions I might have, and I understand that I am free to contact the researcher with any questions I may have in the future.**

**Printed Name**

**Participant Signature**

**Date**

**Researcher Signature**

**Date**

<sup>1</sup>United Kingdom, House of Commons. "Participation in Higher Education in England and the UK: Social Indicators Page." UK Parliament, Commons Briefing Paper SN02630, 27 November 2017, <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN02630#fullreport>.

<sup>2</sup>Tomlinson, Michael. "Graduate Employability: A Review of Conceptual and Empirical Themes." Higher Education Policy, vol. 25, no. 4, December 2012, p. 407 – 431.

<sup>3</sup>United Kingdom, Department for Business, Innovation & Skills. "Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice." GOV.UK, 16 May 2016, <https://www.gov.uk/government/publications/higher-education-success-as-a-knowledge-economy-white-paper>.

<sup>4</sup>United Kingdom, Department for Business, Innovation & Skills. "Understanding Employers' Graduate Recruitment and Selection Practices: Main Report." GOV.UK, by Pollard, Emma, et al., 6 November 2015, <https://www.gov.uk/government/publications/employers-graduate-recruitment-and-selection-practices>.

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