

# Are people who speak foreign languages at an advantage in the labour market? An analysis of British Cohort Study data

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## Executive Summary

It is well known that the UK population has the worst foreign language skills in Europe. This reflects the dominant role of English as the world lingua franca along with a sizeable degree of complacency amongst individuals and employers about the need for foreign language skills. Yet it is also linked to the fact that access to, and take-up of, languages at British schools is highly stratified by school type and gender, as well as by ability and socio-economic background.

Given the paucity of language skills amongst the UK population, it is hardly surprising that employers express a deep lack of satisfaction with the foreign language skills of both school leavers and university graduates. In the 2013 CBI/Pearson Education and Skills survey, which is based on responses from 294 large employers that collectively employ 1.24 million people, foreign language skills were the cause of the greatest dissatisfaction amongst employers. Almost two thirds (64%) of employers were not satisfied with the language skills of school and college leavers whilst more than half (55%) were not satisfied with the language skills of university graduates.

Language skills, then, are in demand and this demand is not restricted to just the higher occupational categories. The 2013 UKCES Employer Skills Survey, which is based on interviews with 91,279 establishments in the UK with at least two staff, demonstrates clearly that there is a perceived shortage of foreign language skills across the full range of occupational categories, amongst both existing staff and job applicants.

Since there is evidence of employer demand for language skills and notable gaps in language proficiency amongst the UK workforce, it would be reasonable to assume that individuals with language skills might be at some kind of advantage in the labour market, vis-a-vis their monolingual peers. The British Academy commissioned the Education and Employers Taskforce to review existing literature on this topic and explore the relationship between language qualifications and subsequent labour market success through analysis of the British Cohort Study, a longitudinal survey which tracks 17,000 people who were born in England, Scotland and Wales in the same week in 1970.

A thorough review of the limited literature that is available on this topic suggests that the ability to converse in a second language does convey a small but significant labour market advantage in the United States. For example Altonji (1995) finds that two years of foreign language study at high school is subsequently associated with a wage premium of approximately 4%, while Saiz and Zoido (2005) find that US college graduates with conversational knowledge of a second language earn, on average, wages that are 2-3% higher than those without.

However evidence from the United Kingdom on this topic is more mixed. Donald Williams (2006) finds that using a second language at work has a positive and statistically significant relationship with earnings in 13 Western European nations but not in the United Kingdom. In addition, research by London Economics (2011) for the Department for Business, Innovation and Skills suggests that language degrees offer their holders lower returns than other subject disciplines.

The analysis of the British Cohort Study undertaken for this report finds little evidence of any direct association between the possession of language qualifications and labour market outcomes at the age of 29, whether this is measured through earnings, employment outcomes or job satisfaction. While there is some incidence of linguists securing superior labour market outcomes, these effects disappear when statistical controls for social background and academic ability are introduced which suggests that this association is linked to other factors such as social background rather than language study.

At first sight this is puzzling, since it is clear from the literature that there are a number of factors which might be expected to contribute to improved wage and employment outcomes for individuals with language qualifications. These include the dearth of language skills amongst the UK population; the links between language competency and other desirable skills and attributes such as communications skills; and the additional work and wider experience of language graduates who spend a year abroad.

However a close review of the evidence points to a range of factors that can and, it would appear, do push down the expected returns to language qualifications in the United Kingdom. These may include a 'vicious cycle' of low supply and low demand, variations between apparent and actual employer demand for language skills, the phenomenon of 'you can't miss what you never had' twinned with complacency about the role of English in world trade, misperceptions of language degrees and language graduates, and a tendency amongst British employers to 'hire in' people with language (linked in part to the flexibility of UK labour market) rather than invest in training for their own workforce. As new, more recent datasets become available for analysis, further research will allow for a deeper understanding of the ways in which language skills influence British working lives.

### About This Report

The report is structured as follows:

- **Section 1** sets out the context for the research undertaken
- **Section 2** explores the theoretical benefits of language proficiency for individuals, employers and the United Kingdom as a whole
- **Section 3** reviews existing literature on the relationship between language proficiency and labour market outcomes from the United States and contradictory evidence from the United Kingdom
- **Section 4** sets out the research methodology employed in this research
- **Section 5** sets out the results of the regression analysis undertaken
- **Section 6** discusses the implications of the findings obtained and discusses the potential explanations for the relationships observed.

## 1) Context: the British and Languages

The British have amongst the worst foreign language skills in Europe. The majority (61%) of Britons do not speak any foreign languages well enough to hold a conversation and, compared to their European counterparts, Britons are less likely to think that learning foreign languages is useful for personal development, less likely to think that foreign languages will be useful for children in their future and more likely to have no wish to learn a new language or improve language proficiency<sup>1</sup>.

The causes of such low levels of foreign language proficiency and such low aspirations in relation to languages are multiple, complex and longstanding. The role of English as the world's lingua franca has undoubtedly imbued a degree of complacency amongst individuals and employers. At the same time policy changes have affected the take-up of languages in schools and compounded the longstanding issue whereby access to, and take-up of, languages at British schools is stratified according to gender and school type and also influenced by ability and socio-economic background<sup>2</sup>.

Such low levels of foreign language proficiency have multiple consequences for individuals, employers and for Britain's place in the world and are the source of concern amongst all the major employer organisations. The British Chambers of Commerce, the Confederation of British Industry and the Federation of Small Businesses have all drawn attention to the paucity of language skills amongst the UK workforce and the problems this creates for British businesses. If, as the London Chamber of Commerce suggests, the language of business is the language of the buyer<sup>3</sup>, then the implication is that UK firms, through poor language skills, must be missing numerous sales and export opportunities. Indeed James Foreman-Peck, Professor of Economics at Cardiff University, has estimated the cost of poor language skills as equivalent to a 3 to 7 percentage point tax on British trade.

Numerous surveys have shown substantive evidence of employer demand for language skills on the one hand and considerable dissatisfaction with the language skills of the UK workforce on the other. For example in the 2013 CBI/Pearson Education and Skills survey, which is based on responses from 294 large employers that collectively employ 1.24 million people, 70% of businesses said they valued foreign language skills, particularly as a mean of building relationships with clients, customers and suppliers (38%) and assisting staff mobility within the organisation (23%)<sup>4</sup>. Foreign language skills were the cause of the greatest dissatisfaction amongst employers: almost two thirds (64%) of employers were not satisfied with the language skills of school and college leavers whilst more than half (55%) were not satisfied with the language skills of university graduates<sup>5</sup>.

Similarly the British Chambers of Commerce characterised the language deficit in the United Kingdom as 'sobering' following a survey of 4,678 business owners in the first quarter of 2013. French was the most commonly spoken language but only 4% of business owners reported that they

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<sup>1</sup> European Commission (2012) Special Eurobarometer 386: Europeans and their Languages

<sup>2</sup> British Academy (2012) Languages: The State of the Nation - Demand and supply of language skills in the UK.

<sup>3</sup> London Chamber (2013) Exporting Britain: Trading our way back to growth

<sup>4</sup> CBI (2013) Changing the Pace: CBI/Pearson education and skills survey 2013

<sup>5</sup> CBI (2013) Changing the Pace: CBI/Pearson education and skills survey 2013

could converse fluently in French. The majority of business owners surveyed said they spoke no German, Spanish, Italian, Russian or Chinese at all<sup>6</sup>.

Since there is, then, considerable evidence of employer demand for language skills in the United Kingdom, notable gaps in language proficiency (supply) across the workforce, as well as evidence to suggest that speaking a second language is associated with higher cognitive and communication ability<sup>7</sup>, it seems reasonable to assume that individuals who do speak one or more foreign languages might be at a modest, but meaningful, advantage in the UK labour market. This report by the Education and Employers Taskforce tests this hypothesis through exploring the relationship between the possession of language qualifications at different levels and three indicators of subsequent labour market success: earnings, employment outcomes; and job satisfaction.

### About This Project

The research presented in this report was commissioned by the British Academy as part of the Born Global programme. The project follows on from *The economic case for language learning and the role of employer engagement*, the Education and Employers Taskforce's 2011 review of the economic case for language learning in 2011. This report explored labour market demand for language skills and highlighted the strong economic case for language learning and the important role that employers can play in increasing language learning in the United Kingdom by helping young people to better understand how languages are commonly used at work.

This report explores whether variations in labour market success are related to possession of qualifications in modern foreign languages through analysis of the British Cohort Study, a longitudinal data set which follows around 17,000 people who were born in England, Scotland and Wales in the same week in 1970. Data is available at birth, age 5, 10, 16, 26, 30, 34, 38 and 42 and the most recent data was collected in 2012.

The dataset that was collected in 2000 (when British Cohort Study participants were aged 29-30) is used for the purpose of this study. This dataset provides sufficient information on qualifications obtained (by subject and at different levels), employment and earnings outcomes, and social and other characteristics that might influence the relationship between language qualifications and labour market outcomes, such as socio economic background, ethnicity, ability, academic performance and parental involvement in education. Regression analysis is used to test the hypothesis that young people gaining qualifications in modern foreign languages are at modest, but meaningful advantage in the labour market. Analysis is undertaken using SPSS v. 19.

The report focuses primarily on the relationship between earnings in adulthood (at age 29) and language qualifications at two different levels: A-Levels, which are typically acquired at the age of 18; and undergraduate degrees, which are typically acquired at the age of 22 and imply a higher level of language proficiency and cultural understanding. For completeness, the study also explores the link between language qualifications and two additional indicators of labour market success: employment outcomes and job satisfaction.

Whilst not the focus of the study, this report also considers the labour market outcomes of non-native speakers of English – those who spoke a language other than English at home when growing

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<sup>6</sup> British Chambers of Commerce (2013) Exporting is good for Britain: Skills

<sup>7</sup> European Commission (2009) Study on the Contribution of Multilingualism to Creativity: Executive Summary

up – compared to their native English speaking peers. [***The results of this analysis will be added as part of follow-up work.***]

## The Theoretical Benefits of Language Proficiency

There are different ways of understanding what it means to be proficient in one or more foreign languages. The number and proportion of people understood to speak foreign languages in the United Kingdom varies according to the relative emphasis on fluency versus functional knowledge of a second language, spoken ability versus reading, writing and listening skills and knowledge of a language versus regular use of this language in an everyday setting.

Irrespective of how language proficiency is understood or measured, it is clear that Britons have amongst the worst language skills in Europe<sup>8</sup>. This section of the report explores why this lack of language skills is problematic for individuals, employers and the United Kingdom as a whole.

### Individuals

However language proficiency is understood or measured, the cognitive and communicative benefits of language speaking for individuals are well-established. A comprehensive review of evidence commissioned by the European Commission summarised the benefits as follows<sup>9</sup>:

- **Enhanced mental flexibility** linked to the ability to see the world through different lenses and think about concepts in different ways;
- **Enhanced interpretation and problem solving capability**, linked to superior abstract thinking skills, concept formation and creative hypothesis formulation;
- **Expanded metalinguistic ability**, linked to awareness of language as a tool for thinking and greater understanding of language dynamics and how language can be used to achieve specific goals;
- **Enhanced learning capacity**, linked to superior memory function and particularly short-term 'working' memory, as this enables the brain to retain information whilst engaging thinking processes are engaged;
- **Enhanced interpersonal ability**, linked to enhanced ability to 'read' situations and understand communicative needs and expectations of others;
- **Reduced age-related mental diminishment** in light of the links between knowledge of languages and slower rates of decline in cognitive processes.

Knowledge of one or more foreign languages, then, is associated with multiple benefits that could reasonably be expected to influence the labour market success of language speakers. However it is important to note that language learning and language proficiency are not evenly distributed amongst the UK population so these benefits are inevitably concentrated amongst a relatively narrowly drawn group of people. At present access to, and take-up of, languages at British schools is heavily stratified by gender and school type and also influenced by ability and socio-economic background. Analysis of the latest set of A-Level statistics<sup>10</sup> and UCAS applications data<sup>11</sup> by the Education and Employers Taskforce reveals the following:

- **Gender:** Girls are much more likely to study languages subjects at A-Level and women are concomitantly more likely to study for language degree at university than men. In 2012-13

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<sup>8</sup> European Commission (2012) Special Eurobarometer 386: Europeans and their Languages

<sup>9</sup> European Commission (2009) Study on the Contribution of Multilingualism to Creativity: Executive Summary

<sup>10</sup> Department for Education (2013) GCE A-Level and equivalent results in England 2012/13 (revised)

<sup>11</sup> UCAS (2013) 2013 Application Cycle: End of Cycle Report: UCAS Analysis and Research

nearly two thirds (63.1%) of all MFL A-Level entrants and 68.3% of all language degree applicants were female.

- **School type:** Pupils at independent schools are far more likely to study languages and at A-Level and at university than state educated pupils. In 2012-13 independent schools accounted for less than a sixth (14.4%) of all A-Level entries but more than a third (36.4%) of all modern foreign language entries. Pupils at independent schools also tend to have access to a wider range of languages and to obtain better grades: nearly half (47.0%) of independent school pupils gained A\* and A grades at A-Level in 2012-13 compared to 36.2% amongst state-educated pupils. This in turn influences university applications: whereas just 9.6% of all young<sup>12</sup> UK-domiciled applicants offered university places in 2013 were from independent schools, the equivalent figures for European languages, literature and related subjects (JACS Subject Group R) and Eastern, Asiatic, African, American and Australasian languages, literature and related subjects (JACS Subject Group T) were 28.3% and 22.1% respectively.
- **Ability:** In the United Kingdom languages tend to be seen as most relevant pupils at the higher end of the ability spectrum. There is no strong rationale for this perception but it undoubtedly influences the rate of take-up of languages: in 2011 more than half of Year 10 pupils were studying languages at 65% of state schools in the highest attainment quintile compared to 25% of schools in the lowest attainment quintile<sup>13</sup>
- **Socio-economic background:** Research by the Department for Education (2010) shows a correlation between the proportion of pupils in receipt of Free School Meals at a school and the likelihood of languages being compulsory at GCSE. Whereas languages are compulsory at Key Stage 4 for more than 50% of students at schools with the lowest proportion of Free School Meal eligibility, they are compulsory at less than 10% of schools with the highest proportion of pupils on Free School Meals<sup>14</sup>.

It is important to bear this in mind when considering the relationship between language proficiency and labour market outcomes in the United Kingdom.

## Employers

From an employer perspective the benefits – or perhaps the necessity – of language skills for were neatly summarised by Willy Brandt, the former German Chancellor in 1994: ‘If I am selling to you, I speak your language. If I am buying, dann mossen Sie Deutsch sprechen’. Or as the London of Chamber of Commerce puts it, ‘the language of business is the language of the buyer’<sup>15</sup>.

From a business perspective, foreign language proficiency amongst staff yields multiple benefits. These include the ability to make contacts, to build and maintain relationships with foreign suppliers and partners, to access information about local markets and export opportunities, and to export

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<sup>12</sup> Young applicants here refers to those who are 19 years old or younger

<sup>13</sup> CFbT Education Trust (2012) Language learning in secondary schools in England Findings from the 2011 Language Trends survey.

<sup>14</sup> Department for Education (2010), Languages at Key Stage 4 2009 - 2011. Evaluation of the Impact of Language Review Recommendations

<sup>15</sup> London Chamber (2013) Exporting Britain: Trading our way back to growth

successfully. Indeed, the CBI (2011) has argued that employees who can communicate in two or more languages and who have an understanding of local cultures 'can make all the difference in the conduct of business, consolidating relationships with existing suppliers and customers and opening the way to new contacts'<sup>16</sup>.

There are other, more subtle benefits associated with language proficiency for employers. For example Jasmine Williams and Ian Chaston of the University of Plymouth (2004) highlight the links between language skills and the more general cultural sensitivity which is seen as an important prerequisite of success in the field of international marketing. Based on a questionnaire distributed to 2,000 UK SMEs and targeted at export managers, they also find that linguists are more likely to be discriminating about the intelligence they collect and more innovative in their decision making than non-linguists<sup>17</sup>. In addition, the majority of language graduates undertake four year courses and spend a year studying or working abroad which means they often have additional work and wider experience than peers studying other subjects and over shorter periods of time.

These benefits add up and since research by the British Chambers of Commerce (2004) shows that there is a direct correlation between the emphasis export-oriented businesses place on having employees with language skills and their annual turnover, there is a strong case for regarding language skills as almost a prerequisite for success for export-oriented firms, particularly. Based on their export behaviour, the 1,000 firms surveyed by the British Chambers of Commerce were segmented into four categories: Opportunists, Developers, Adapters, Enablers. Whereas only 33% of Opportunists (firms that valued language skills the least) had an annual export turnover above £500,000; the figure increase to 54% for Developers, 67% for Adapters and 77% for Enablers, firms that placed the most emphasis on language skills amongst staff<sup>18</sup>.

It seems therefore that export-oriented firms that value language skills tend to have higher turnover than those that attach less value to language skills. The difference in sales growth is also noteworthy: whilst export sales by Opportunists in the British Chambers of Commerce Language Survey were declining by an average of £50,000 a year per exporter, the exports of Enablers were increasing by an average of £290,000 a year, which again suggests that recognition of, and investment in, language skills are conditions of success for export-oriented firms.

The inverse is also true: the absence of language skills can act as a significant barrier to trade and export as a more recent (2013) survey by the British Chambers of Commerce demonstrates. Amongst the 4,678 business owners surveyed, 667 were trading only with the domestic market at the point of the survey and were therefore classed as 'potential exporters' by the British Chambers of Commerce. Of these firms, businesses with the least propensity to export (not currently exporting and only likely to consider exporting in the next two years) were more likely to report that their decisions about when and whether to enter international markets were likely to be affected by

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<sup>16</sup> CBI and Ernst and Young (2011) *Winning Overseas: Boosting business export performance*

<sup>17</sup> Williams, J. and Chaston, I. (2004) *Links between the Linguistic Ability and International Experience of Export Managers and their Export Marketing Intelligence Behaviour*, *International Small Business Journal*: 22: 463-86

<sup>18</sup> British Chambers of Commerce, (2004) *BCC Language Survey: The Impact of Foreign Languages on British Business— Part 2: The Quantitative Results*



language barriers than businesses that had exported within the last two years or were actively considering exporting<sup>19</sup>.

### The United Kingdom

The implication of the British Chambers of Commerce research – that a lack of language skills might be causing UK firms to not seek, miss or even turn down opportunities to export – is important. Research by David Greenaway and Richard Kneller (2004) of the University of Nottingham suggests that exporting firms tend to be more productive than those that supply only the domestic market, in part because they encounter, through exporting, innovative strategies, processes and products that exist in other markets<sup>20</sup>. And since firm productivity influences wider rates of growth and success, one would expect this language-linked failure to capitalise on export opportunities to exert a dragging force on the UK economy.

This notion is borne out by research by James Foreman-Peck (2007) which investigates the link between language skills and national productivity. Whilst recognising the potential benefits for UK firms associated with the role of English as the world's lingua franca, Foreman-Peck (2007) finds that exports form a smaller proportion (37%) of sales for UK SMEs than for European SMEs (45%). He shows, through regression analysis, that the potential export benefits associated with native English speaking in the United Kingdom are outweighed by the negative consequences of low levels of foreign language proficiency amongst the workforce<sup>21</sup>.

Drawing on the idea of a language barrier as a 'tax on trade', Foreman-Peck (2007) goes on to investigate the macroeconomic implications of low language skills and investment amongst UK businesses and establishes that United Kingdom exports disproportionately to English speaking countries. Whereas a common language is estimated on average to have boosted trade between countries by 57% between 1990 and 1997, the effect for the United Kingdom is 107%. Foreman-Peck (2007) estimates that the UK's disproportionate dependence on English-speaking trading partners markets is equivalent to a 3 to 7 percentage point tax on British trade, which equated to 0.5-1.2% of GDP or between £7.3 billion and £17 billion in an estimate updated for the Education and Employers Taskforce in 2011<sup>22</sup>.

Whilst not the focus of this report, it is also important to note that the Brandt edict – 'If I am selling to you, I speak your language. If I am buying, dann mossen Sie Deutsch sprechen' – applies to more than just the sale of goods and services to foreign buyers. It is widely acknowledged that the pervasive low levels of language proficiency that exist among the UK population have implications for the UK's international position and reputation and its ability to identify and respond to the major challenges of our time<sup>23</sup>.

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<sup>19</sup> British Chambers of Commerce (2013) Exporting is good for Britain: Skills

<sup>20</sup> Greenaway, D and Kneller, R (2004) Industry Differences in the Effect of Export Market Entry: Learning by Exporting?, GEP discussion paper 2004/33 Nottingham University

<sup>21</sup> Foreman-Peck, J. (2007) Costing Babel: the contribution of language skills to exporting and productivity, Cardiff Business School

<sup>22</sup> Mann, A, Brassell M and Bevan, D (2011) The economic case for language learning and the role of employer engagement. London: Education and Employers Taskforce

<sup>23</sup> British Council (2013) Languages for the Future: Which languages the UK needs most and why

### 3) Existing Evidence

Since there is considerable evidence of employer demand for language skills in the United Kingdom, notable gaps in language proficiency amongst the workforce and evidence to suggest that speaking a second language is associated with higher cognitive and communication ability, it seems logical to assume that individuals with language skills might be at a modest, but meaningful, advantage in the labour market. This section reviews the existing literature on the topic in order to test whether this is a reasonable assumption.

Before this it is important to reiterate that there are different ways of understanding what it means to be proficient in a foreign language and what it means to be successful in the labour market. In terms of language proficiency, the relative emphasis on, for example, fluency or functional knowledge; spoken ability or reading, writing and listening skills; hours of study or outcomes from these hours of study; skills or accredited qualifications; knowledge of a language or regular use of this language in an everyday setting; has naturally influenced both the research that has been undertaken and the findings obtained.

So too have different ways of understanding and measuring labour market success. For individuals, success in the labour market can be understood in terms of comparative employment outcomes, wages, job satisfaction and/or career progression and over variable periods of time, although research to date has concentrated on the link between languages and outcomes in terms of earnings. Naturally, each approach to understanding and defining foreign language proficiency and labour market success has some advantages but also some drawbacks and it is important to bear these in mind when reviewing the existing research and evidence on this topic.

#### Evidence from the United States

Evidence from the United States suggests that some level of proficiency in a foreign language – however measured – is associated with positive wage outcomes. For example Joseph Altonji, Professor of Economics at Yale University, finds that studying foreign languages at high school is linked to higher wages and wage growth in the United States.

Altonji (1995) draws on a US Department of Education survey of 12,980 individuals who were high school seniors during the 1971-72 academic year and who were surveyed again in 1973, 1974, 1976, and 1979. Controlling for ability and a host of socio-economic factors, he estimates that two years of foreign language study at high school is subsequently associated with a wage premium of approximately 4%<sup>24</sup>.

Two further points stand out from this research. First, the returns to foreign language study are greater than those associated with science, maths and English courses. Altonji (1995) finds this difficult to explain but suggests that language courses could play a role in the development of general cognitive skills and communication skills, echoing the evidence cited above. Secondly, the relationship between foreign language study and wages is much stronger for those who did not attend college than for college graduates, which again suggests that language study at school

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<sup>24</sup> Altonji, J (1995) The Effects of High School Curriculum on Education and Labor Market Outcomes, *Journal of Human Resources* 30:3, 409-438.

contributes to general skill development. It might also indicate that studying languages at school can, under some circumstances, substitute for studying particular types of college course at a higher level<sup>25</sup>.

Whilst Altonji (1995) finds that studying foreign languages at high school is comparatively more beneficial for those who do not attend college, the benefits for US college graduates are still large and significant, irrespective of subject studied. This chimes with research by Albert Saiz and Elena Zoido (2005) who identify a trend whereby US college graduates with conversational knowledge of a second language<sup>26</sup> earn, on average, wages that are 2-3% higher than those without.

Saiz and Zoido (2005) use data from the Baccalaureate and Beyond Longitudinal Study which tracks the experiences of a nationally representative cohort of thousands of US college graduates who gained their bachelor's degrees during the 1992-1993 academic year. They control for a range of factors including ability (measured via test scores), parental education, degree subject, college attainment, quality of college attended and personal characteristics such as gender and race and employ a range of approaches to test their initial findings.

Amongst Baccalaureate and Beyond Longitudinal Study respondents, 34% claimed to have conversational knowledge of a least one foreign language, a proportion that is not dissimilar to the 39% of the UK population who said they could speak at least one foreign language well enough to have a conversation in it in 2012<sup>27</sup>. Across the sample as a whole, conversational knowledge of a second language is associated with wage returns of 2.8%. When the sample is restricted to native English speakers with American parents who speak foreign languages, the wage effect is slightly lower at 2.2% but still positive and statistically significant<sup>28</sup>. Again, this suggests that some degree of proficiency in a foreign language has a lasting influence on earning power in the US labour market<sup>29</sup>.

Saiz and Zoido (2005) also explored the impact of learning a language between the 1993 and 1997 surveys and found that language learning over this period was associated with higher wages. The size of the estimate varied according to the technique employed but acquiring proficiency in a language between 1993 and 1997 was associated with wage returns of between 2.0% and 3.7%<sup>30</sup>.

Thus it seems that some kind of proficiency in a foreign language is rewarded in the US labour market: high school students who study languages and college graduates who speak a second language tend to earn more, later in life, than those who do not but who otherwise share similar characteristics. Whilst Altonji (1995) and Saiz and Zoido (2005) acknowledge that the size of the

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<sup>25</sup> Altonji, J (1995) The Effects of High School Curriculum on Education and Labor Market Outcomes, *Journal of Human Resources* 30:3, 409-438.

<sup>26</sup> Respondents were asked: Do you have conversational knowledge of languages other than English?" If the answer was affirmative, the interviewer followed up with the question "What are these languages?"

<sup>27</sup> European Commission (2012) Special Eurobarometer 386: Europeans and their Languages

<sup>28</sup> In statistics, the term significance refers to the probability that an effect or a relationship is not due to chance alone.

<sup>29</sup> Saiz and Zoido (2002) find that the returns to speaking German or "other languages" are 4% percent; to speaking French, 2.7%; and to speaking Spanish, 1.7%. In other words, those who speak languages known by a smaller number of people obtain higher rewards in the labour market. Intuitively this makes sense: people who are proficient in languages that are less commonly spoken would under normal circumstances be expected to command higher wages.

<sup>30</sup> Saiz, A and Zoido, E (2005) Listening to What the World Says: Bilingualism and Earnings in the United States, *The Review of Economics and Statistics*, Vol. 87, No. 3, pp. 523-538

wage premium compares unfavourably with estimates of the returns to one extra year of general schooling (8-14%), the overall implication is that the ability to converse in a second language does convey a small but significant advantage in the US labour market<sup>31</sup>.

### Evidence from the United Kingdom

To date, there has been little similar exploration of the links between foreign language proficiency and labour market success in the United Kingdom. However two relevant studies have been undertaken and both present a more mixed picture of the relationship between proficiency in one or more foreign languages and labour market outcomes in terms of wages in the UK.

Donald Williams (2006) uses data from the European Community Household Panel Survey (ECHP) between 1994 and 1999 to explore the wage returns associated with using a foreign language at work in 14 countries<sup>32</sup> in Western Europe. Respondents were asked: “Does your work involve the use of a language other than [the official language of the country]?” and in 1996 the proportion of people who responded affirmatively ranged from nearly 78% in Luxembourg to just 6 percent in the United Kingdom. UK respondents were therefore least likely to be working in a foreign language of the 14 European countries studied.

Controlling for a large number of socio-economic factors, Williams (2006) finds that use of a second language at work has a positive and statistically significant relationship with earnings in all of the 14 countries studied except the United Kingdom<sup>33</sup>. In Germany, the Netherlands, Belgium, Italy, Spain, and Austria, workers who use a second language at work earn approximately 8% to 12% more than those who do not, whilst higher estimates (of between 15% and 22%) are found in Denmark, Ireland, Greece, Portugal and Finland and 30% in Luxembourg. The precise rate of return varies by occupation, language used<sup>34</sup> and gender as well as by country but, for the United Kingdom, Williams (2006) finds no returns to using a second language in a professional capacity, irrespective of the language used, gender or occupation of the respondent<sup>35</sup>.

Using a similar approach but later survey data, Victor Ginsburgh and Juan Preto-Rodrigues (2007) also find that using a foreign language is associated with higher earnings in Austria, Denmark, Finland, France, Germany, Greece, Italy, Portugal and Spain. However they are unable to produce estimates for the United Kingdom due to missing data<sup>36</sup>.

The Williams (2006) research suggests that the positive relationship between language proficiency and earnings documented in the United States and much of Western Europe (including Ireland, an

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<sup>31</sup> Saiz, A and Zoido, E (2005) Listening to What the World Says: Bilingualism and Earnings in the United States, *The Review of Economics and Statistics*, Vol. 87, No. 3, pp. 523-538

<sup>32</sup> The EU 15 are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden and the United Kingdom

<sup>33</sup> Williams, D (2006) *The Economic Returns to Multiple Language Usage in Western Europe*. IRISS Working Paper Series 2006–07, October, CEPS/INSTEAD, Luxembourg.

<sup>34</sup> Williams (2006) found that using English at work yielded positive and significant returns in Austria, Finland, Italy, Spain and the Netherlands. Substantial and positive returns of between 5% and 10% were also found for French in Denmark, Luxemburg, Greece, and Portugal; for German in Belgium, Luxemburg, and France; for Spanish in France; for Italian in Luxemburg; and for Portuguese and Dutch in Belgium

<sup>35</sup> Williams, D (2006) *The Economic Returns to Multiple Language Usage in Western Europe*. IRISS Working Paper Series 2006–07, October, CEPS/INSTEAD, Luxembourg.

<sup>36</sup> Ginsburgh, V and Prieto-Rodriguez, J (2007) *Returns to Foreign Languages of Native Workers in the EU*. *ILRReview* 64 (3): Article 9

English speaking country) may not exist in the United Kingdom. This may reflect the focus on using a foreign language at work (which Britons are apparently much less likely to do) rather than on studying languages at school or the ability to converse in a foreign language but there are some other indications that language proficiency may not be rewarded in the UK labour market.

Peter Dolton and Anna Vignoles (2002) examine the relationship between A-Level subject choices and labour market outcomes amongst men using both the longitudinal 1958 National Child Development Study, a longitudinal survey which follows the lives of 17,000 people born in England, Scotland and Wales in a single week of 1958, and a survey of men who graduated in 1980. Whilst Dolton and Vignoles (2002) find evidence of a positive return to mathematics study, they find no evidence of additional wage returns to studying foreign languages at A-Level when tested for at age 33. Controlling for ability and a wide range of socio-economic factors, men with A-Levels in mathematics earn an additional 7-10% compared to students taking A-Levels in other subjects, but there is no indication of additional returns to science, English or foreign language A-Levels<sup>37</sup>.

The returns to language degrees in the United Kingdom appear to be positive but relatively modest. Research by London Economics (2011) for the Department of Business, Innovation and Skills (BIS), compares the returns to undergraduate degrees to possession of 2 or more A-Levels via Labour Force Survey data from the period 1996 to 2009. Whilst this analysis shows that people with language degrees earn more than people with A-Levels, language degrees appear to offer their holders relatively low returns compared to degrees in other subjects.

The London Economics (2011) research shows that compared to possession of two A-Levels, undergraduate degrees in European languages and literature are associated with wage returns of 20.7%, whilst degrees in non-European languages and literature offer average returns of 15.5%. This compares to average returns of 27.4% across all subject groups. Men obtain low returns (11.5%) from European language and literature degrees but higher returns (19.7%) from non-European languages. Women obtain comparatively higher returns (26.7%) from European language and literature degrees but lower returns (16.5%) from non-European languages. These findings are echoed by a second study for BIS on the value of higher education qualifications by Ian Walker of Lancaster University and Yu Zhu of the University of Kent (2013).

A similar picture emerges from recent data about the destinations of language graduates published by the Higher Education Statistics Agency. The most recent Destinations of Leavers from Higher Education (DLHE) Longitudinal Survey, which tracks the destinations of a sample of graduates three and a half years after they graduated in 2008-9, indicates that the employment profile of language graduates<sup>38</sup> broadly mirrors the overall trend across all subjects. However language graduates tend to earn less than graduates from other disciplines and are also less likely to be in professional occupations as shown in Figure 1, Figure 2 and Figure 3.

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<sup>37</sup> Dolton, P J & Vignoles, A (2002) "The Return on Post-compulsory School Mathematics Study," *Economica* 69 (273): 113-141

<sup>38</sup> Unusually, HESA include JACS Subject Group Q - *Linguistics, Classics and related subjects* in the broad languages category for the Destinations of Leavers from Higher Education Longitudinal Survey. Hence in this section the term 'language graduates' refers to an average across graduates studying English, Classics and Ancient Languages as well as those studying modern foreign languages, which may skew the results. For a full list of JACS Subjects Groups see <http://www.hesa.ac.uk/content/view/1787/281/>

Three and a half years following graduation in 2008-9, 72.1% of language graduates who studied on a full-time basis were working full-time and 6.8% were working part time compared to 72.8% and 6.8% of graduates across all subject areas. Language graduates were slightly more likely to be undertaking unpaid work (1.2% versus 0.7%) and combining paid work with further study (5.8% versus 5.1%) but slightly less likely to be undertaking further study only. Just 3.6% of language graduates were assumed to be unemployed in the winter of 2012-13, a very similar proportion to the 3.4% of all graduates who were assumed to be unemployed<sup>39</sup>.

Whilst employment outcomes are broadly comparable, UK language graduates were less likely to be employed in professional occupations and tended to earn lower salaries than their peers at the point of the survey in winter 2012-13. Amongst language graduates who studied on a full-time basis, 74.9% were employed in managerial, professional and associate professional occupations in 2012-13 compared to 78.9% amongst all subject groups. At £23,000, the median salary amongst language graduates working full-time in winter 2012-13 was lower than the £24,500 median salary amongst UK-domiciled first degree graduates as a whole and a smaller proportion (61.8%) were earning above £21,000 than the average (66.8%)<sup>40</sup> across all subject disciplines.

At first sight this differs from an early iteration of the Destinations of Leavers from Higher Education Longitudinal Survey previously reported by the Education and Employers Taskforce (2011). Modern foreign language graduates were found to have the highest mean salary amongst subjects Strategically Important and Vulnerable (SIVs) by the Higher Education Funding Council for England (HEFCE), three and a half year after graduating in 2002-3<sup>41</sup>. In reality this apparent discrepancy reflects the focus on mean rather than median salary and the comparison with SIV subjects rather than all subject disciplines<sup>42</sup>.

It is important to stress that none of these studies from the United Kingdom are directly comparable to the evidence from the United States discussed above, which may account for the different findings that emerge about the relationship between foreign language proficiency and subsequent labour market success. However it is also possible that there is something in the UK labour market that means language skills – scarce as they are amongst the UK workforce – do not tend to be rewarded.

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<sup>39</sup> HESA (2012) Destinations of Leavers from Higher Education Longitudinal Survey – Table 11b

<sup>40</sup> HESA (2012) Destinations of Leavers from Higher Education Longitudinal Survey – Table 11b

<sup>41</sup> HEFCE, (2008) Graduates and Their Early Careers

<sup>42</sup> It is standard practice to report average salary in terms of median rather than mean because the mean is skewed upwards by anomalously high salaries.



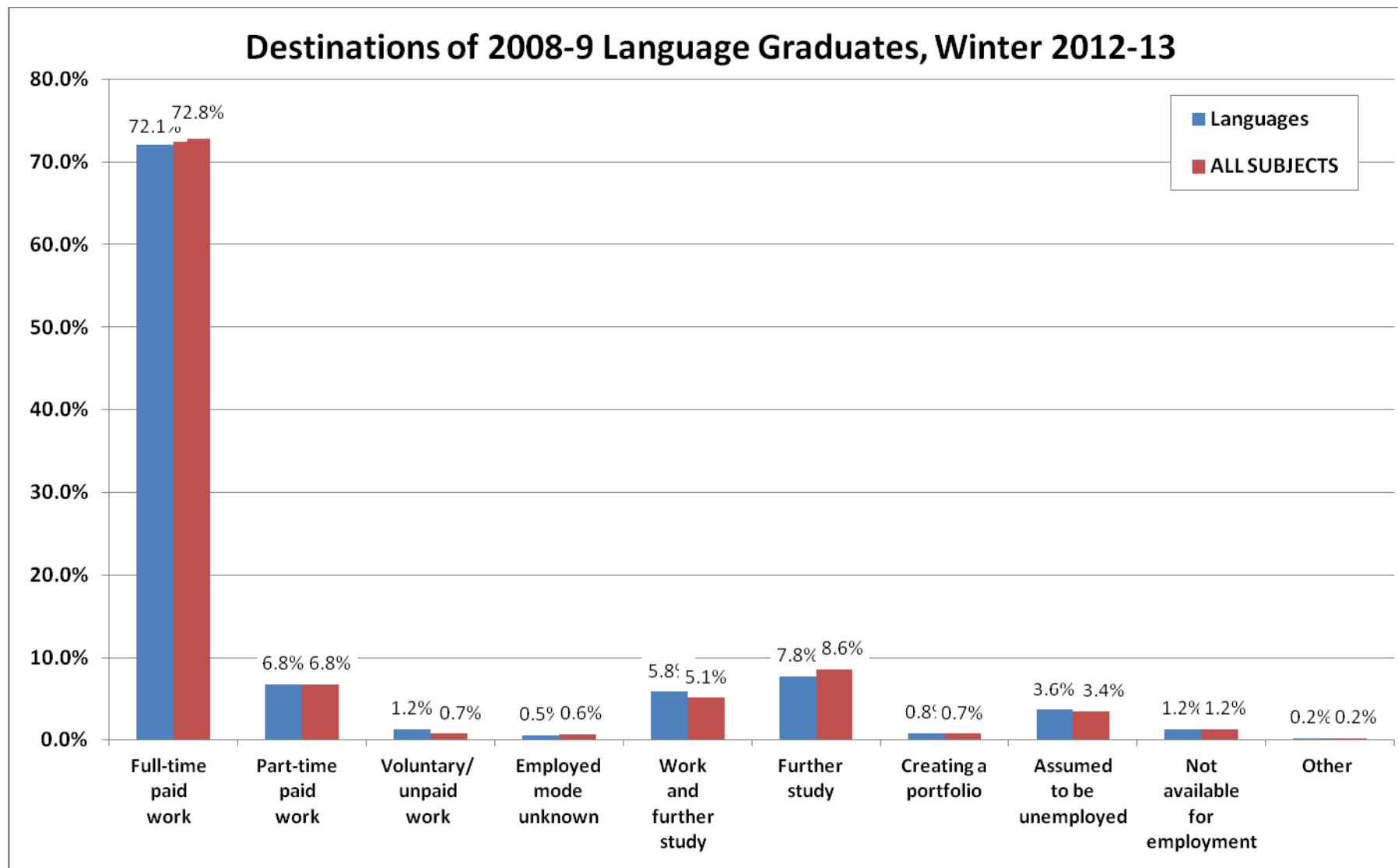


Figure 1: Employment status of language graduates who studied on a full time basis (Source: HESA Destinations of Leavers from Higher Education Longitudinal Survey 2008-9)



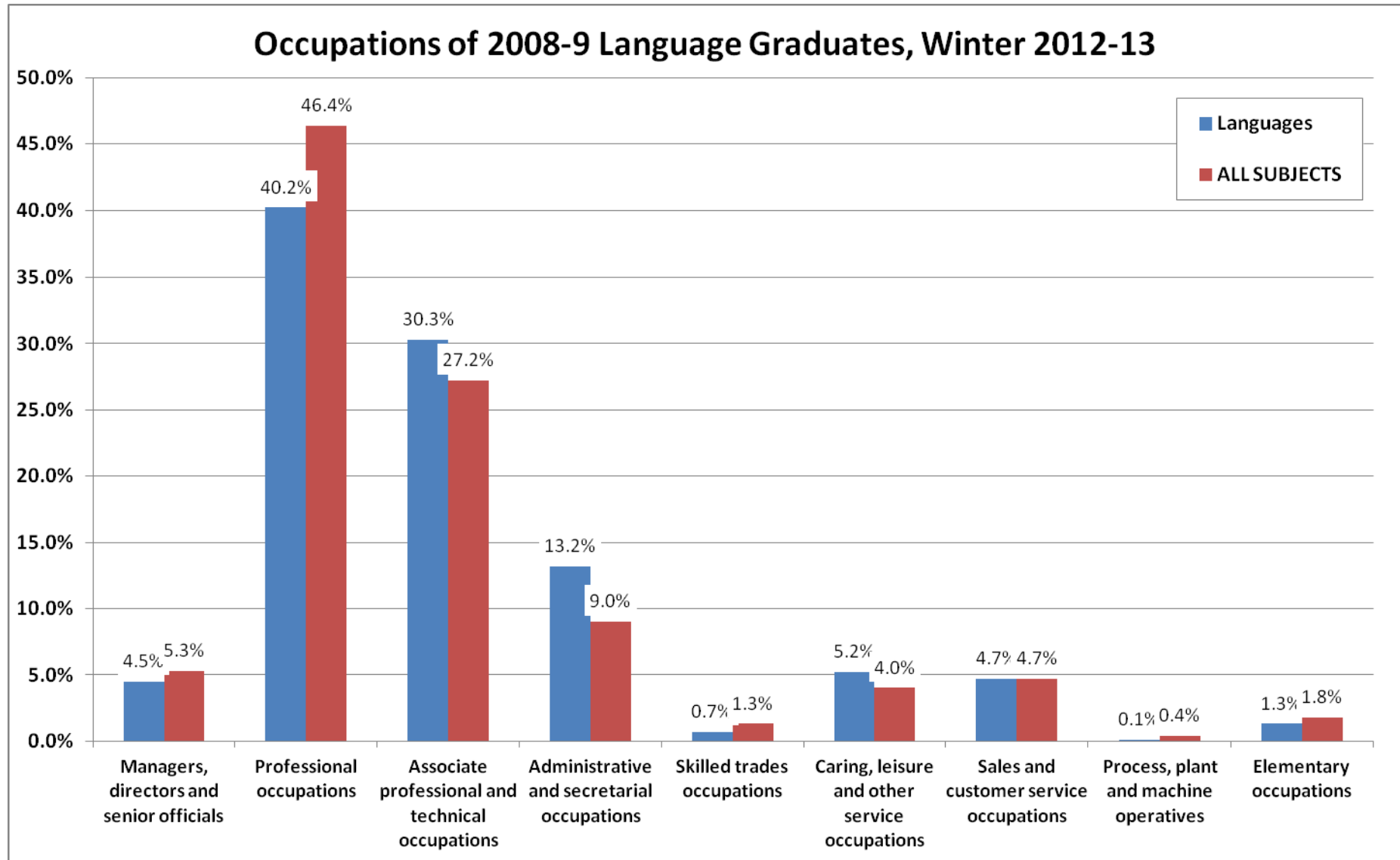


Figure 2: Employment status of language graduates who studied on a full time basis (Source: HESA Destinations of Leavers from Higher Education Longitudinal Survey 2008-9)

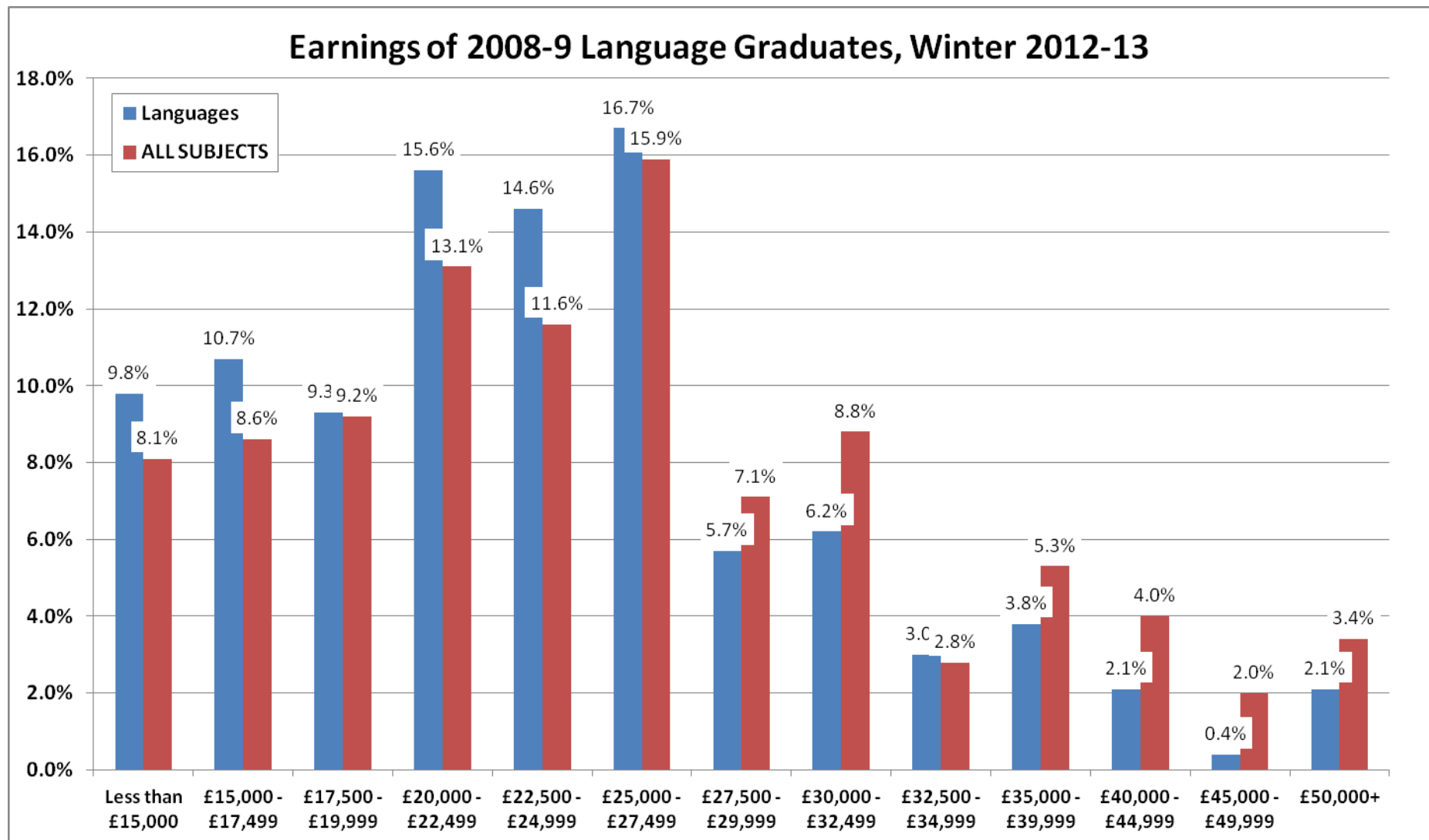


Figure 3: Earnings of language graduates who studied on a full time basis (Source: HESA Destinations of Leavers from Higher Education Longitudinal Survey 2008-9)

## 4) Methodology

The research presented here by the Education and Employers Taskforce explores whether variations in labour market success are related to possession of qualifications in modern foreign languages. This section sets out the research methodology employed in the research.

This research can be thought of as descriptive or developmental because it is concerned with how social phenomena are related to preceding events that have influenced or affected a present condition or phenomenon<sup>43</sup>. Longitudinal studies, which track individuals over time, enable descriptive research to be undertaken. They have widespread application in education, since education is intrinsically linked to an individual's social, intellectual and emotional growth<sup>44</sup>.

In longitudinal studies measurements are taken at different points in time from certain individuals. This allows researchers to analyse the nature and duration of social phenomena, explore change over time and explain change in terms of stable characteristics such as gender, ethnicity, socio-economic backgrounds or other variables such as income<sup>45</sup>. Ruspini (2002) argues that the strength of longitudinal studies lies in the fact that they enable researchers to determine causality, make inferences and construct more advanced models of human behaviour than cross-sectional or time series data.

This report explores whether variations in labour market advantage are related to possession of qualifications in modern foreign languages through analysis of the British Cohort Study, a longitudinal data set which follows around 17,000 people who were born in England, Scotland and Wales in the same week in 1970. Since the British Cohort Study began, there have been seven full data collection exercises covering the cohort members' health, education, social and economic circumstances, which took place when respondents were aged 5, 10, 16, 26, 30, 34, and 38<sup>46</sup>.

In common with other longitudinal studies, the British Cohort Study sample size has declined as the cohort has aged but bias has been shown to be minimal despite survey dropout and missing data. The cohort has sustained its characteristics despite a loss of disadvantaged members of the cohort, and a higher population of women than men<sup>47</sup>.

The 1970 British Cohort Study enables exploration of the association between language qualifications and labour market outcomes because it provides data of interest at age 16 and 29. At age 16 (in 1986) respondents were asked about the subjects they studied at O-Level/CSE and at age 29 (in 2000) they were asked, where relevant, to recall the subjects they studied at A-Level and university. At age 29 they were also asked to report their net income, employment status and degree of job satisfaction.

This research focuses on A-Level and degree level language qualifications, as these are relatively scarce amongst the population and represent good proxies for language proficiency. Separately, the

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<sup>43</sup> Best, J.W. (1970) *Research in Education*, New Jersey: Prentice-Hall, Englewood Cliffs

<sup>44</sup> Cohen, L., Manion, L. and Morrison, K. (2007), *Research Methods in Education*, London: Routledge

<sup>45</sup> Ruspini, E. (2002), *An Introduction to Longitudinal Research*, London: Taylor & Francis Group

<sup>46</sup> Economic and Social Data Service (2012) *An ESDS guide to Longitudinal Studies* Available via

<http://discover.ukdataservice.ac.uk/series/?sn=200001>

<sup>47</sup> Piweis, I., Calderwood, L., Hawkes, D. and Nathan, G. (2004), *National Child Development Study and 1970 British Cohort Study: Technical Report: Changes in the population and sample size over time*, London: Institute of Education, Centre for Longitudinal Studies

paper also explores the labour market outcomes of non-native English speakers (who therefore have some inherited proficiency in a foreign language) within the British Cohort Study: this analysis can be found in the Annex<sup>48</sup>. Although there are a large number of missing values in the 2000 British Cohort Study dataset, some 3,200 people replied to the question about their A-Level subject and 300 (approximately 10%) studied at least one modern foreign language A-Level. Almost 2,000 individuals responded to the question about university degrees and of these 4% pursued a degree in foreign languages.

One of the benefits of using British Cohort Study data is that it makes it possible to control for background variables which may influence the relationship between language qualifications and labour market outcomes. Drawing on theory and existing publications, this analysis controls for the influence of social class (using father's social class as a proxy), gender and academic ability (proxied through standardised maths score at age 16) on labour market outcomes at age 29. Due to missing data<sup>49</sup>, school type is not included in the regression model but it can be used to shed light on the profile of respondents who studied languages at A-Level and degree level.

Regression analysis is used to explore the relationship between language qualifications and labour market outcomes. In the case of income, a continuous variable, linear regression is used. Language qualifications are initially regressed directly against income to explore the basic correlation and then the three control variables – social class, gender and attainment – are introduced to control for the influence that these factors are known to have on success in the labour market. For employment status and job satisfaction, categorical variables where respondents are divided into two groups (unemployed vs. not unemployed; somewhat satisfied vs. not satisfied), binary logistic regression is applied directly and then with the three control variables.

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<sup>48</sup> The Annex also includes analysis of labour market outcomes for language graduates compared to those of history and English literature graduates.

<sup>49</sup> There was a teachers strike in 1986 which significantly affected response rates to the question asked about type of school attended. Using this variable would have reduced the sample size considerably and potentially affected the regression results. In addition, the social class variable accounts to some extent for type of school attended.

## 5) Findings from Analysis of the British Cohort Study

Since it has been established that access to, and take-up of, languages at British schools today varies substantially according to the type of school attended by a young person along with their ability and socio-economic background, it is useful to explore the characteristics of British Cohort Study respondents who studied languages at school and at university to see whether access to languages was similarly stratified in the late 1980s and early 1990s.

This section describes the characteristics of respondents who studied languages and then sets out the results of the regression analysis for the three indicators of labour market success explored: earnings, employment status and job satisfaction.

### The Characteristics of People Studying Languages

Analysis of British Cohort Study data supports the idea that the distinctive pattern of language study discussed above is not a new phenomenon. Cross-tabulation of respondents who studied languages against social class, gender, school type and attainment variables reveals the following about the types of people who studied languages at A-Level and degree level.

#### Social Class

British Cohort Study respondents from higher social classes (as proxied through father's social class) were much more likely to study languages at both A-Level and degree level than those from lower social classes, as

		A LEVEL SUBJECT			DEGREE SUBJECT		
		MFL	Not MFL	TOTAL	MFL	Not MFL	TOTAL
Father's social class	I	18.1%	11.4%	12.1%	31.5%	16.9%	17.5%
	II	46.4%	34.0%	35.4%	44.4%	42.3%	42.4%
	III non-manual	8.4%	10.0%	9.8%	7.4%	9.0%	8.9%
	III manual	18.1%	31.9%	30.4%	9.3%	22.2%	21.7%
	IV	3.0%	7.4%	6.9%	0.0%	4.9%	4.7%
	V	2.4%	1.5%	1.6%	0.0%	0.9%	0.8%
	Student	0.0%	1.5%	1.3%	0.0%	1.0%	1.0%
	Dead	3.6%	2.4%	2.5%	7.4%	2.7%	2.9%
	SAMPLE	166	1,333	1,499	54	1,247	1,301

Figure 4 shows.

		A LEVEL SUBJECT			DEGREE SUBJECT		
		MFL	Not MFL	TOTAL	MFL	Not MFL	TOTAL
Father's social class	I	18.1%	11.4%	12.1%	31.5%	16.9%	17.5%
	II	46.4%	34.0%	35.4%	44.4%	42.3%	42.4%
	III non-manual	8.4%	10.0%	9.8%	7.4%	9.0%	8.9%
	III manual	18.1%	31.9%	30.4%	9.3%	22.2%	21.7%
	IV	3.0%	7.4%	6.9%	0.0%	4.9%	4.7%
	V	2.4%	1.5%	1.6%	0.0%	0.9%	0.8%

	<b>Student</b>	0.0%	1.5%	1.3%	0.0%	1.0%	1.0%
	<b>Dead</b>	3.6%	2.4%	2.5%	7.4%	2.7%	2.9%
	<b>SAMPLE</b>	<b>166</b>	<b>1,333</b>	<b>1,499</b>	<b>54</b>	<b>1,247</b>	<b>1,301</b>

Figure 4: The social class of BCS respondents studying languages at A-Level and degree level

The majority of BCS respondents studying language A-Levels at school were from higher social classes: respondents from social classes I and II accounted for 64.5% of all entrants who studied at least language A-Level against 47.5% of all A-Level entrants and the correlation between social class and A-Level language study is statistically significant.

Respondents from more privileged backgrounds were also more likely to study languages at degree level: those from social classes I and II accounted for 75.9% of people studying for language degrees in the early 1990s compared to 60.0% of those attending university. The correlation between social class and degree level language study is statistically significant. It is noteworthy that none of the British Cohort Study respondents who studied for language degrees were from social classes IV and V.

### Gender

Analysis of the British Cohort Study shows that female respondents were more likely to study language A-Levels and language degrees than their male counterparts. Just 7.2% of men studied language A-Levels compared to 13.0% of women and women accounted for 67.1% of the language A-Levels possessed by survey respondents, as shown in Figure 5.

The gender divide in language study becomes even more stark at degree level where women account for 76.1% of all language graduates. Whereas 6.1% of female graduates in the British Cohort Study studied languages, the equivalent figure for men is just 1.9%. Both sets of correlations are statistically significant.

	<b>MFL A level</b>	<b>MFL Degree</b>
<b>Male</b>	32.90%	23.90%
<b>Female</b>	67.10%	76.10%
<b>SAMPLE</b>	2,246	1,658

Figure 6: Gender profile of respondents with language qualifications

### School Type

Concomitant with the current situation in the United Kingdom, British Cohort Study respondents who attended independent schools were proportionately more likely to study languages at A-Level and at degree level than their state educated peers. In addition, respondents who attended grammar schools were more likely to study languages at A-Level and degree level than those who went to comprehensive schools, as shown in Figure 7.

	A-LEVEL			DEGREE		
	MLF	TOTAL	% MFL	MFL	TOTAL	TOTAL
<b>Comprehensive</b>	49	638	7.7%	11	430	2.6%
<b>Grammar</b>	10	55	18.2%	3	55	5.5%
<b>Independent</b>	12	66	18.2%	5	77	6.5%
<b>SAMPLE</b>	<b>71</b>	<b>759</b>	<b>9.4%</b>	<b>19</b>	<b>562</b>	<b>3.4%</b>

Figure 7: Profile of language learners by school type

Whereas 18.2% of independently schooled respondents with A-Level qualifications studied at least one language subject, the corresponding figure for state educated respondents is 8.5% and this correlation is statistically significant. Furthermore 18.2% of grammar school respondents with A-Level qualifications studied one or more languages compared to just 7.7% of respondents who attended comprehensive schools.

This trend continues amongst graduates. Amongst respondents, 6.5% of graduates who attended independent schools studied languages at university compared to 5.5% of former grammar school students, 2.6% of former pupils of non-selective state schools and 2.9% of graduates who attended all state schools.

### Academic Ability

Higher attaining respondents were more likely to study languages at A-Level and degree level than their lower attaining peers. A much higher proportion (30.3%) of those who studied languages at A-Level achieved A grades in O-Level Mathematics than those who studied A-Levels in other subjects (14.0%) and the correlation between attainment and studying foreign languages is statistically significant.

However at degree level there is much less difference between language graduates and graduates from other disciplines in terms of attainment at age 16. This presumably reflects selection into university-level study by higher attaining respondents.

		A-LEVEL			DEGREE		
		MFL	Not MFL	TOTAL	MFL	Not MFL	TOTAL
Academic Ability (mathematics attainment at age 16)	O-Level A	30.30%	14.00%	16.00%	27.30%	26.40%	26.40%
	O-Level B	27.90%	22.60%	23.20%	32.70%	27.90%	28.10%
	O-Level C/ CSE 1	29.10%	27.80%	28.00%	34.50%	28.90%	29.10%
	O-Level D/ CSE 2	4.20%	13.10%	12.00%	1.80%	8.40%	8.10%
	O level E/ CSE 3	6.10%	11.60%	10.90%	3.60%	5.90%	5.80%
	CSE 4	1.20%	7.40%	6.70%	0.00%	1.90%	1.80%
	CSE 5	1.20%	3.50%	3.20%	0.00%	0.50%	0.50%
	Fail	0.00%	0.10%	0.10%	0.00%	0.20%	0.20%
	<b>SAMPLE</b>	<b>165</b>	<b>1,187</b>	<b>1,352</b>	<b>55</b>	<b>1,223</b>	<b>1,278</b>

Figure 8: Attainment profile (at age 16) of language learners

Overall then it is clear that access to, and take-up of, languages amongst British Cohort Study respondents was heavily influenced by their social class, gender and attainment as well as the type of school they attended, a situation that continues today. This highlights the importance of controlling for these influences when exploring the association between language qualifications and labour market outcomes via regression analysis.

## Wage Premia

As set out above, regression analysis is used to explore the relationship between studying languages at A-Level or degree level and subsequent earnings at age 29 amongst British Cohort Study respondents. In order to ensure fair comparison, the sample was restricted to the 60% of respondents who were in full-time employment in the year 2000.

Initially, when comparing those who studied at least one language at A-Level and those who did not, there is a positive and significant ( $p=0.013$ ) correlation between studying A-Levels in MFL subjects and earnings at age 29, whereby those who studied languages at A-Level earned 12.5% more than their peers who studied other subjects. However when the key control variables – gender, social class and academic ability – are introduced, the coefficient remains positive but becomes insignificant. This suggests that any wage premium amongst those who studied languages at A-Level is not directly linked to having studied languages but rather the consequence of other factors such as social background.

When comparing earnings at age 29 between those who studied language degrees and those who did not, initial regression analysis produces a negative and insignificant coefficient ( $p=0.787$ ) which would suggest that language graduates tend to earn less than graduates from other disciplines. The situation does not change when the key control variables are introduced to the model. This suggests that there is no real association between studying languages at university and subsequent earnings at age 29.

	Model 1			Model 2					
	Coefficient	St. Error	Significance	A-Level			Degree		
				Coefficient	St. Error	Significance	Coefficient	St. Error	Significance
<b>Outcome:</b>									
Income v MFL A-Level	0.129	0.05	0.017***	0.07	0.068	0.303			
Income v MFL Degree	-0.023	0.094	0.808				-0.077	0.113	0.495
<b>Control variables:</b>									
Father social class	...	...	...	-0.044	0.015	0.004***	-0.021	0.014	0.129*
Gender	...	...	...	-0.254	0.045	0.000***	-0.258	0.044	0.000***
Academic ability	...	...	...	-0.092	0.015	0.000***	-0.093	0.017	0.000***

a) \*\*\* significant at 5%

b) \* significant at 15%

Figure 9: Regression of language qualifications against earnings at age 29

## Employment Outcomes

To assess the impact of studying foreign languages at A-Level or degree level on employment outcomes, British Cohort Study respondents are segmented into two groups: unemployed and looking for work; and not unemployed. This latter category includes those in full time and part time work, those who are in full-time education and those looking after families.

The assumption employed in this research is that being unemployed and actively seeking work is a circumstance forced on people and is therefore notably different to the choices people may make in



terms of working full-time or part-time, studying or looking after family members. However it is important to note that just 4% of cohort respondents were out of work and looking for a job in 2000, which may affect the results of the analysis presented below.

According to the logistic regression results, respondents who studied at least on modern foreign language at A-Level were 0.32 times more likely to be unemployed than those who studied other subjects. However the p-value shows that the variation is insignificant, which means that there are other factors which played a greater role in determining the employment status of respondents at age 29.

Similarly language graduates are 0.5 times more likely to be unemployed and looking for work than graduates from other disciplines. Once again, the p-value is insignificant which means that this variation in employment status cannot be explained by whether or not respondents studied languages at university.

### **Job Satisfaction**

For the purpose of this study, job satisfaction falls into two categories: respondents who expressed some degree of job satisfaction (very or somewhat satisfied) and those who did not. Using binary logistic regression, we find that those who studied languages at A-Level are 0.16 times less likely to report job satisfaction at the age of 29 than their peers who did not but this correlation is not significant.

The results for language graduates are slightly different. Language graduates are 0.11 times more likely to report job satisfaction than graduates from other disciplines but this coefficient is not significant. This suggests that job satisfaction is not directly linked to the possession of language degrees.

## 6) Exploring the Relationship between Language Qualifications and Labour Market Outcomes

Our analysis of British Cohort Study data finds no clear evidence of a link between language qualifications and higher than average subsequent earning power. There also appears to be little direct association between language qualifications and relative labour market advantage in terms of employment outcomes and job satisfaction in the UK labour market.

Whilst this finding echoes previous research on the relationship between language proficiency and labour market outcomes, it is still somewhat surprising given the evidence from the United States and Ireland discussed above and the existence of a number of factors which could reasonably be expected contribute to improved wage and employment outcomes for individuals with language qualifications in the United Kingdom. These include the dearth of language skills amongst the UK population and employer demand for language skills; the links between language competency and other desirable skills and attributes such as communications skills; and the additional work and wider experience of language graduates who spend a year abroad.

That these factors do not seem to combine to produce superior labour market outcomes for individuals who are proficient in one or more foreign languages is noteworthy and worthy of further exploration. This section explores a number of factors that might push down returns to language proficiency in the United Kingdom. These include a potentially 'vicious cycle' of low supply and low demand; variations between apparent and actual employer demand for language skills, the phenomenon of 'you can't miss what you never had' in terms of language skills twinned with complacency about the role of English in world trade; perceptions (or misperceptions) of British language degrees and language graduates; and possibly a tendency to hire in native speakers of foreign languages rather than invest in developing language skills amongst existing staff.

### Supply and Demand of Language Skills

Given the paucity of language skills amongst the UK population, it is hardly surprising that employers express a deep lack of satisfaction with the foreign language skills of school leavers and university graduates. In the 2013 CBI/Pearson Education and Skills survey, which is based on responses from 294 large employers that collectively employ 1.24 million people, foreign language skills were the cause of the greatest dissatisfaction amongst employers. Almost two thirds (64%) of employers were not satisfied with the language skills of school and college leavers whilst more than half (55%) were not satisfied with the language skills of university graduates<sup>50</sup>.

Whilst it is sometimes assumed that employer demand for language skills is restricted to the higher occupational categories the 2013 UKCES Employer Skills Survey demonstrates clearly that there is a perceived shortage of foreign language skills across the full range of occupational categories, amongst both existing staff and job applicants<sup>51</sup>.

In the 2013 Employer Skills Survey, which is based on interviews with 91,279 establishments in the UK with at least two staff, employers reporting skills gaps amongst staff were read a list of types of

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<sup>50</sup> CBI (2013) Changing the Pace: CBI/Pearson education and skills survey 2013

<sup>51</sup> UKCES (2014) UK Commission's Employer Skills Survey 2013: UK Results. Evidence Report 81

skills and asked, for each occupation where they reported that some staff lacked full proficiency, which skills were lacking. It is striking that a higher proportion of skills gaps amongst staff in elementary occupations (16%) were attributed to foreign language skills gaps than amongst managers (8%), professionals (11%) and associate professionals (7%)<sup>52</sup>.

A similar pattern emerges in relation to vacancies unfilled due to skills gaps. In the 2013 Employer Skills Survey, 4,869 establishments reported having vacancies that were difficult to fill because of skill shortages. Of the vacancies identified by these establishments, 17% were attributed to foreign language skill deficiencies but a higher proportion of vacancies in elementary occupations (22%) were attributed to foreign language skill gaps than managerial (17%), professional (14%) and associate professional (17%) vacancies<sup>53</sup>. Employers, therefore, believe there are shortages of foreign language skills across the full range of occupational categories, amongst both existing staff and job applicants. This is not a new finding or a new problem: similar results were obtained in the 2009 and 2011 Employer Skills Surveys.

This would imply significant demand for people in the UK workforce with the ability to speak one or more foreign language. Yet there are also indications that demand may not in reality be as high as these figures suggest. For example whilst the language skills – or lack thereof – of school leavers and college graduates were the source of the greatest levels of dissatisfaction amongst employers surveyed by the CBI in 2013, foreign language skills were rarely seen as the highest priority for action in primary or secondary education by employers. Just 7%, 10% and 6% of employers identified foreign language skills as a priority area for action in primary, 11-14 and 14-19 education respectively<sup>54</sup>. In addition, only 4% of employers cited foreign language skills as an important consideration in graduate recruitment and just 1% of employers reported that they prioritise the recruitment of language graduates<sup>55</sup>.

Similarly, despite the fact that employers identified foreign language gaps amongst existing staff and job applicants, the 2013 UKCES Employer Skills Survey points to relatively low levels of planned investment in employee language skills. Amongst the 32,630 establishments which anticipated a need to upskill staff within the next 12 months, just 10% identified foreign language skills as an area for investment, a lower proportion than all other listed categories<sup>56</sup>. This suggests that enhancing the foreign language skills of employees is rarely regarded as an immediate priority by the majority of employers, with demand and investment instead concentrated amongst a relatively small proportion of employers. In other words, the higher levels of demand for foreign language skills that appear to exist amongst UK employers do not seem to translate into recruitment strategies or investment priorities except in a small number of cases.

### **Employer Attitudes Towards Languages**

This may be indicative of wider contradictions in employer perceptions of the value of foreign language proficiency. Exploring employer demand for foreign language skills in the Scottish financial services sector in a small pilot study, Mary Fischer (2013) of Edinburgh Napier University finds

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<sup>52</sup> UKCES (2014) UK Commission's Employer Skills Survey 2013: UK Results. Evidence Report 81

<sup>53</sup> UKCES (2014) UK Commission's Employer Skills Survey 2013: UK Results. Evidence Report 81

<sup>54</sup> CBI (2013) Changing the Pace: CBI/Pearson education and skills survey 2013

<sup>55</sup> CBI (2013) Changing the Pace: CBI/Pearson education and skills survey 2013

<sup>56</sup> UKCES (2014) UK Commission's Employer Skills Survey 2013: UK Results. Evidence Report 81

indications that foreign languages skills are systematically undervalued by speakers and non-speakers alike<sup>57</sup>.

When interviewed, managers working for investment management companies and speaking at least one foreign language acknowledged that language proficiency had some benefits. The ability to speak at least one additional language was understood to enhance 'preliminary chit-chat' and relationship building with customers and clients, improve understanding of foreign market dynamics and assist the process of dealing with client branch offices where staff are less proficient in English.

However there was a simultaneous and somewhat contradictory belief amongst these same managers that speaking English was sufficient in the investment management industry and that foreign language skills were not necessary for the performance of firms or individuals. Fisher (2013) identifies a sense amongst those interviewed that that language skills were not something that 'serious professionals' needed to possess or aspire to 'unless they were foreign, and the language in question was English'. It seems, therefore, that language skills tend to be regarded in the financial sector as secondary soft skills which convey some incidental benefits for employees and employers, rather than as hard currency with practical benefits and positive returns for businesses. It is plausible that this view might be replicated in other sectors and industries.

### **Employer Perceptions of Languages Degrees & Language Graduates**

Employer (and employee) ambivalence about the importance of foreign language skills may reflect wider perceptions – or possibly misperceptions – of language degrees and language graduates in Britain.

John Canning (2009) of the University of Southampton believes employer ambivalence is linked to how language degrees have been positioned by their proponents. He argues that those seeking to promote the benefits of language degrees have positioned modern languages as a skill, rather than a humanities discipline from which graduates will develop humanities-type skills and attributes including communication skills, critical thinking, self-motivation and the ability to construct and defend arguments<sup>58</sup>. This, he believes, under-describes to employers the deep intercultural competence and understanding that language graduates develop and the multiple benefits associated with the experience of living and working overseas that are in fact of relevance to employers across all industries.

This could help explain the degree of scepticism about the value of British language degrees and language graduates that Mary Fischer (2013) identifies amongst the finance professionals she interviews. Investment managers were broadly positive about the benefits of the year abroad that the majority of language graduates undertake: language graduates were regarded as more likely to be driven, adaptable and as possessing wider perspectives than graduates on three year courses. However British language graduates working in investment management were apparently less likely to have the opportunity to use their language skills than foreign nationals due to a lack of confidence

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<sup>57</sup> Fischer, M (2013) Employer demand for languages graduates in Scotland: a case study in the Financial Services sector. *Scottish Languages Review* 26. pp. 3-12.

<sup>58</sup> Canning, J (2009). A skill or a discipline? An examination of employability and the study of modern foreign languages. *Journal of Employability and the Humanities* 3

about their language skills<sup>59</sup>. Fischer (2013) attributes this lack of confidence amongst employers not to how languages are positioned but rather to how they are taught at British universities, in particular the preference for teaching through literature and culture rather than through more applied methods<sup>60</sup>.

### Hiring In Native Speakers

If there is, as Canning (2009) suggests, some level of employer doubt about the value of British language degrees then this would naturally colour the way that employers view British language graduates, vis-a-vis European or extra-European graduates with degrees in other subjects and the ability to speak at least two languages. The open nature of the British economy and the higher proportion of foreign-born residents in Britain (11.6% in 2011) relative to the EU average (9.7% in 2011)<sup>61</sup> means that UK employers are likely to have access to a wider pool of foreign-born individuals (who may well be proficient in languages other than English) than their European counterparts. This would tend to push down any wage premium associated with foreign language proficiency for UK citizens.

There is some evidence of tendency amongst British employers to 'hire in' international employees with language skills (linked in part to the flexibility of UK labour market), rather than employing British language graduates or investing in training for their own workforce<sup>62</sup>. For example, a survey of 213 businesses by the London Chamber of Commerce and Industry in 2013 suggests that 28% of London businesses have or would consider recruiting non-EU workers for their language skills, while 26% have done so with a view to developing export markets outside the EU<sup>63</sup>. Similarly, Mary Fischer's (2013) research identifies a very international outlook amongst Scottish investment management companies and a tendency to employ European graduates with an international mindset and the ability to speak English and at least one foreign language to a very high standard<sup>64</sup>.

Yet other evidence on the 'hiring in' phenomenon amongst British employers is more mixed. In a 2005 survey of nearly 2,000 exporting SMEs across 29 European states (EU, EEA and candidate countries) which focussed on export performance, future export intentions and use of foreign languages, UK SMEs were less likely to say that they had acquired staff with specific language skills for export purposes or hired native speakers to support foreign trade than their European counterparts. Whereas 22% of the European SMEs surveyed reported that they had employed native speakers full time to support foreign trade, the equivalent figure for the United Kingdom was 16%<sup>65</sup>.

### A Vicious Circle?

Whilst the implication is that UK SMEs are less likely to hire foreign nationals specifically for their language skills than SMEs elsewhere in Europe, the more significant finding from this survey is that

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<sup>59</sup> Fischer, M (2013) Employer demand for languages graduates in Scotland: a case study in the Financial Services sector. *Scottish Languages Review* 26. pp. 3-12.

<sup>60</sup> Fischer, M (2013) Employer demand for languages graduates in Scotland: a case study in the Financial Services sector. *Scottish Languages Review* 26. pp. 3-12.

<sup>61</sup> Eurostat (2012) Population and Social Conditions: Statistics in focus 31/2012, <http://www.west-info.eu/files/Eurostat58.pdf>

<sup>62</sup> London Chamber (2013) *Exporting Britain: Trading our way back to growth*

<sup>63</sup> Cited in London Chamber (2013) *Exporting Britain: Trading our way back to growth*

<sup>64</sup> Cited in London Chamber (2013) *Exporting Britain: Trading our way back to growth*

<sup>65</sup> CILT and InterAct International (2006) *ELAN: Effects on the European Economy of Shortages of Foreign Language Skills in Enterprise*.

export-oriented UK SMEs behave very differently to their European counterparts in relation to language investment and planning: UK SMEs are not only less likely to have employed people with language skills to meet specific export needs but are also much less likely to have a formal language strategy, employ external translators or interpreters for foreign trade or offer language training to staff. That UK SMEs were also much less likely to report that they had failed to win export contracts due to an absence of foreign language skills and believe they would need to acquire language expertise in the next 5 years points to a sizeable degree of complacency about the need for language skills and/or a severe lack of understanding of the benefits of language proficiency<sup>66</sup>.

This, in turn, is suggestive of a vicious and self-perpetuating circle of low supply and low demand for language skills in the United Kingdom. There are undoubtedly supply side issues since Britons have the worst foreign language skills in Europe but in classical economic terms one would expect this to increase competition (and therefore wages) for individuals in the UK workforce who are proficient in one or more foreign languages in the UK workforce. Yet this does not seem to be happening. Perhaps, as James Foreman-Peck (2007) suggests, there is an information based market failure whereby employers lacking staff with language skills fail to identify or understand what they are missing.

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<sup>66</sup> The sample was stratified for each country to match the national export profile as closely as possible.

## 7) Concluding Remarks

There is undoubtedly a strong theoretical case for language learning in the United Kingdom, for individuals, firms and the United Kingdom as a whole. The British Chambers of Commerce, Confederation of British Industry and the Federation of Small Businesses have all drawn attention to the paucity of language skills amongst the UK workforce and numerous surveys have consistently shown substantive evidence of employer demand for language skills on the one hand and considerable dissatisfaction with the language skills of the UK workforce on the other.

Given the apparent mismatch between demand for and supply of language skills in the United Kingdom and evidence of wage returns to language skills in the United States and Ireland it seems logical to assume that individuals who have the ability to speak one or more foreign languages might be at some kind of advantage in the UK labour market, vis-a-vis their monolingual peers. Yet analysis of British Cohort Study data undertaken for this report finds little evidence of a direct association between the possession of language qualifications and enhanced labour market outcomes, when compared to peers, at the age of 29. While initial analysis of the data has identified some incidence of linguists securing superior labour market outcomes, these effects disappear when statistical controls for social background and academic ability are introduced, irrespective of whether labour market success is measured through earnings, employment outcomes or job satisfaction. This echoes findings from previous research into the association between language proficiency and labour market outcomes in the United Kingdom.

At first sight the fact that the rules of classical economics do not appear to apply to language skills is deeply puzzling. However whilst there is much that is not yet known about the occupational profiles and career paths of people with language skills, a thorough review of literature on demand for and supply of language skills points to a range of factors that can and, it seems, do, push down the expected returns to language qualifications in the United Kingdom.

There appear to be a combination of factors at work. First, it seems clear that there is a considerable degree of complacency amongst UK employers about the need for foreign language skills, given the role that English plays as the world's lingua franca. It is interesting that a belief that 'English is enough' appears to persist even among people who speak multiple languages.

Second, and related, some employers do not recognise the need for, and benefits of, language skills. There is clear evidence to suggest that export-oriented firms that value language skills are more successful than those that do not but the degree of difference between UK SMEs and their European counterparts in terms of language strategies and investment suggests that languages are systematically undervalued by many UK firms. This may reflect the longstanding nature of the UK language deficit: firms that have always lacked staff with language skills will naturally find it more difficult to identify or understand what they might be missing.

Third, where demand for language skills does exist it does not seem to translate into investment priorities or recruitment practices. Language proficiency is not something that can be acquired overnight or via a short training course. Where firms do recognise the value and benefits of languages and skills gaps among existing members of staff, it may be that language skills are so poor

that the transactional costs (in terms of time and financial resources) associated with rectifying this language deficit appear to be too high.

Fourth, whilst it would be reasonable to expect the high costs of training up non-language speakers to increase demand for applicants who already speak languages, there is some suggestion that this effect is offset by the positioning of language degrees as a passport to a specific skill (rather than as a general humanities discipline) and, linked to this, relatively fixed perceptions of language graduates amongst employers. It may also be that, owing to the flexibility of the UK labour market, employers in the United Kingdom are more able to hire in native speakers of foreign languages than employers in other countries, thereby 'spoiling the market' for UK citizens who speak foreign languages. Overall, this appears to add up to a vicious cycle of low supply and low demand for language skills in the United Kingdom.

It is important to note that whilst the research undertaken for this study is robust, the findings reported here about the association between language qualifications and labour market outcomes in the United Kingdom are not definitive, but represent a snapshot from a single (if large, representative and detailed) cohort of respondents. The world has changed a great deal since 2000, when the British Cohort Study data on labour market outcomes used in this research was collected: globalisation has continued apace and free movement across Europe has grown with the expansion of the European Union. The publication of the next wave of data from the Longitudinal Study of Young People in England (LSYPE) in 2015, a survey which explores the experiences of thousands of people who are now aged 25, will offer a valuable new opportunity to explore the link between language qualifications and labour market outcomes in contemporary times. Further analysis of such rich datasets may well provide, moreover, a more nuanced understanding of the economic value of languages to individuals working in different economic sectors and regional labour markets.



## Annex I

### Non-Native English Speakers

Whilst not the focus of the study, this report considers the labour market outcomes of non-native speakers of English in the British Cohort Study – those who spoke a language other than English at home when growing up and therefore had some inherited proficiency in a foreign language – compared to their native English speaking peers. Data from the 2011 Census shows that 4.2 million (or 8%) of the residents of England and Wales speak a main language other than English and these language skills are a vital, if under-recognised, source of language proficiency in the United Kingdom.

Analysis shows that 3.8% of British Cohort Study respondents did not speak just English at home. These respondents were slightly more likely to be from social classes 4 and 5 but Figure 10 shows that there was considerable variation between non-native English speakers in terms of their social class.

		What language is usually spoken at home? (age 16)		
		English Only	Other	TOTAL
Father's social class	I	391	15	<b>406</b>
		7.0%	6.8%	<b>7.0%</b>
	II	1,562	54	<b>1,616</b>
		28.0%	24.4%	<b>27.9%</b>
	III non-manual	570	22	<b>592</b>
		10.2%	10.0%	<b>10.2%</b>
	III manual	2,154	63	<b>2,217</b>
		38.6%	28.5%	<b>38.2%</b>
	IV	492	30	<b>522</b>
		8.8%	13.6%	<b>9.0%</b>
	V	127	9	<b>136</b>
		2.3%	4.1%	<b>2.3%</b>
	Student	91	17	<b>108</b>
		1.6%	7.7%	<b>1.9%</b>
	Dead	189	11	<b>200</b>
		3.4%	5.0%	<b>3.5%</b>
<b>TOTAL</b>		<b>5,576</b>	<b>221</b>	<b>5,797</b>
		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Figure 10: Native and non-native English speakers in the British Cohort Study

The binary native English speaker variable was regressed against the three indicators of subsequent labour market success: earnings, employment outcomes; and job satisfaction. This analysis shows that speaking another language at home when growing up is not associated with higher earnings in adulthood. The initial coefficient is negative and not significant and this remains the case when the key control variables are introduced to the model.

Non-native English speakers with some inherited language competencies were 0.48 times less likely to be unemployed and looking for work when surveyed in 2000 than their native English speaking peers but again this variation is not statistically significant. Job satisfaction is also not associated with the language individuals spoke at home when growing up.

## Annex II: Comparing Outcomes: Arts Degrees

To understand how the labour market outcomes of language graduates compare to the labour market outcomes of graduates who studied similar disciplines, two separate sub-samples of British Cohort Study respondents were created, the first comprising English Literature graduates and the second History graduates. These subjects were chosen as comparators because they are taught largely through literature.

Regression analysis was used to compare the earnings, employment outcomes; and job satisfaction of history and languages graduates, and then English literature and languages graduates. The results of this analysis are set out below.

### History

Among British Cohort Study respondents, 61 graduated with degrees in history whilst 73 graduated with degrees in languages. The sample size (134) is not large and reduces further to 101 when regression analysis is conducted.

The basic model with no control variables does not show a positive relationship between earnings and language degrees: history graduates earn 7% more than language graduates. However this relationship is not significant and no strong conclusions can be drawn.

The relationship changes considerably the control variables are included. The effect becomes larger, with history graduates earning 28% more than language graduates, and the significance improves to a borderline figure of 15%. However care should be exercised in interpreting this result as the sample size is small and it unexpectedly gender and social class effects disappear.

	Model 1			Model 2		
	Coefficient	St. Error	Significance	Coefficient	St. Error	Significance
<b>Outcome:</b>						
Income vs MFL Degree (History and Languages)	-0.073	0.134	0.590	-0.281	0.195	0.155*
<b>Control variables:</b>						
Father social class	...	...	...	-0.043	0.046	0.330
Gender	...	...	...	-0.107	0.203	0.832
Academic ability	...	...	...	-0.284	0.085	0.000***

\*\*\* Significant at 5%      \* Significant at 15%

Figure 11: Binary logistic regression of earnings: history graduates are the reference category

In terms of job satisfaction, language graduates are 0.16 times less likely to be satisfied with their jobs comparing to history graduates but the coefficient is not significant. In terms of employment status, there were just 3 language graduates and no history graduates who were unemployed and looking for work at the point of survey in 2000 so the sample is too small to draw any meaningful conclusions.

## English Literature

In the 2000 British Cohort Study there were 78 respondents with degrees in English literature compared to 73 with degrees in languages. The sample size reduces to 108 respondents when regression analysis is undertaken.

In the basic model there is a positive relationship between earnings and the possession of a degree in foreign languages rather than English literature: on average languages graduates earn 8% more than English graduates. However this relationship is not significant so no strong conclusions can be drawn.

The relationship changes considerably when the control variables are included. The size of the effect increases but as \*\*\* Significant at 5%

Figure 12 shows, the relationship becomes negative, with language graduates earning on average 12% less than English literature graduates. However the coefficient remains insignificant so again there is no clear relationship between earnings and studying languages at university rather than English literature.

	Model 1			Model 2		
	Coefficient	St. Error	Significance	Coefficient	St. Error	Significance
<b>Outcome:</b>						
Income v MFL Degree (English and Languages)	0.069	0.133	0.604	-0.234	0.176	0.189
<b>Control variables:</b>						
Father social class	...	...	...	-0.059	0.052	0.272
Gender	...	...	...	-0.087	0.204	0.672
Academic ability	...	...	...	-0.252	0.072	0.001***

\*\*\* Significant at 5%

Figure 12: Binary logistic regression of earnings

In relation to job satisfaction, regression analysis shows that language graduates are 0.18 times more likely to be happy with their jobs but the coefficient is not significant. As before, the number of graduates who were unemployed and looking for work in 2000 is too small to draw any meaningful conclusions.

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