

Changing Patterns of American Ascendancy

Top Graduate Programmes in Economics: Historical Evolution and Recent Evidence

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Abstract: The focus of this paper is on a very specific aspect of the ‘internationally-organized machine’ of economics, namely the evolution and location of the top PhD programmes which underlie the profession. The first part of the paper provides an overview narrative of the historical evolution of PhD programmes in economics from 1880, drawing on existing literature. The changing roles of Europe and the US is the primary focus in this regard, given that together they still dominate the top 50 rankings of the top economics departments in the world. The second part of the paper is empirical, and novel in terms of the data constructed. It attempts to bring the narrative up to the present time by looking at the cohorts of winners of the main young economist awards in economics in the US and Europe over the last twenty years or so and to chart at which universities they obtained their undergraduate degrees and doctorates

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1 Introduction¹

The activities of economists-what they do and how and why they do it-are of at least as much interest and importance as the activities of the people economists themselves study: businessmen, housewives, bankers, finance ministers, and trade-union leaders. (Hutchinson, 1955 p.1)

Economists are now part, even often from their undergraduate years, of large, organized, internationally linked academic machines, with their subjects closely organized and defined (Ibid, p. 15)

So, wrote T. W. Hutchinson over sixty years ago, and what applied then applies with equal force today. The focus of this paper is on a very specific aspect of the 'internationally-organized machine' of economics, namely the evolution and location of the top PhD programmes which underlie the profession.² The first part of the paper provides an overview

¹ Having first written references in 1973/74, continuing to this day, in support of PhD applications for our top undergraduate students, first to the US primarily but in the last fifteen years or so also to European universities, the issue of which PhD programmes in economics to recommend has fascinated me. Many of these students were very successful, with five graduating from Harvard, four from Yale, two each from MIT, Stanford and Chicago, three from LSE and many more in other top universities.

² Others have looked at this topic also, for example see Coupé, T. (2004) on US undergraduate and postgraduate education in economics, but from a very different perspective.

narrative of the historical evolution of PhD programmes in economics from 1880, drawing on existing literature. The changing roles of Europe and the US is the primary focus in this regard, given that together they still dominate the top 50 rankings of universities in the world. This part of the paper is not then about the best economists or best departments of economics, but a narrative about the location of the main doctorate programmes available over time to young aspiring economists. There is a link of course. For example, Amir and Knauff (2008) ranked economics departments based not on a measure of the research productivity of their staff but on the worth of their PhD programmes.

The second part of the paper is empirical, and novel in terms of the data constructed. It attempts to bring the narrative up to the present time by looking at the cohorts of winners of the main young economist awards in economics in the US and Europe over the last twenty years or so and to chart at which universities they obtained their doctorates.³ The implication being that the more students from an institution who won an award the higher the standing of its doctorate programme.⁴ This part of the paper relates directly to Conley and Önder (2014). They provided data on a very large sample (over 7,000) of N. American economics PhD graduates and examined how each of the Top-30 universities performed in terms of the research record of these graduates, with some striking findings (see later). This paper however covers both N. America and Europe, relates to a more recent period and concentrates on an elite group, namely young economists recognised by the profession through the granting of a major prize/award.

The total number of young (at the time of the award) economists so involved exceeds 350. The main group by far comprises the Sloan Awardees (229), given annually to around eight young economists based in the US at the time of the award. The John Bates Medal is the other US prize covered, awarded annually by the American Economic Association (AEA) to a young American economist.⁵ To provide balance the other five prizes for young economists are all Europe-based, one modelled on the Bates Medal, two awarded by the European Economic Association (EEA) and two for French and German-speaking young economists. The inclusion of the latter is simply a reflection of the rising importance of French and German-speaking economists and doctorate programmes in the last twenty years or more (see for

³ See Frey and Gallus (2017) for a discussion on the economics of awards.

⁴ Chapter 17, 'The citation practices of doctorates in economics' by George Stigler and Claire Friedland (reprinted in Stigler, 1982, from the *Journal of Political Economy*, 1975) provides an interesting broad discussion of doctorate students from around thirty US universities in terms of a variety of factors, including types of employment, publication and so on, covering mostly the period 1950 to 1968.

⁵ For a humorous 'application' for this award, see Torgler (2019).

example Önder and Schweitzer 2017). Their inclusion also partly addresses the disadvantage for many in relation to the top journals (all in English), partly of course explained by the fact that the native language of these economists is not English and partly by the possible bias towards ‘home university’ graduates in what are almost all US-based journals (see Foucade et al, 2015).⁶

The most recent previous work on the ‘geography of economics’ so to speak is perhaps that by Albarrán et al (2017).⁷ Echoing the earlier quotation from Hutchinson (1955), they argue that ‘the study of the national origins and destinations of elite scientists constitutes a key topic in the understandings of the academic profession in any discipline’ (p. 262). The key data they used relate to 2007 and covered the spatial characteristics of a large sample of productive economists and a smaller sample of highly productive economists. They also were interested in what they call the ‘funnelling effect’ towards the US, with the main emphasis though on career patterns following the completion of the doctorate. The new empirical work in this paper as mentioned covers a much more recent period and concentrates on top young economists (see definitions later), especially where they took their undergraduate degree and then their doctorate.

2 Historical Overview

Introduction

The focus of this section as noted earlier is on PhD education in political economy/economics and hence not on the great economists or ideas of the period. Today, the two aspects are much linked, as a PhD in economics, usually in a top university, is a necessary condition to becoming a top academic researcher in the field. Not so in the past though, as many of the great economists of the pre-WWI period, especially in Britain, did not have any special training in political economy/economics, yet they remain icons for the profession to this day.

Klamer and Colander (1990) note that graduate schools were not always the key to becoming an economist, not only in the 19th century but even in the early 20th century. For example, David Ricardo (1772-1823) was a London stockbroker and later in life a respected parliamentarian. The Frenchman Léon Walras (1834-1910) wrote a novel and lived like a

⁶ For example, citations often lack data on some journals that are potentially important outlets for German-speaking PhDs. These journals are either not included at all in the Web of Science or they start being covered from later years on, such as the *German Economic Review* from only 2007.

⁷ This paper also follows on similar work on the geography of authors, composers and philosophers (see, O’Hagan 2020, O’Hagan and Borowiecki 2010, and O’Hagan and Walsh 2017).

bohemian before he turned to the theory of economics. Francis Edgeworth (1845-1926) was an Irish philosopher and political economist who made significant contributions to the methods of statistics during the 1880s but also taught logic and wrote about ethics. The Austrian economist, Carl Menger (1840–1921) did have a doctorate, but in jurisprudence at the Jagiellonian University in Kraków, and worked for years as a journalist.

The section is broken into four parts. The first covers the pre-WWI period, when great economists from Britain, France, Italy and Germany emerged, but during which time there was only a PhD programme on offer in the Continental European countries, the PhD being in political economy though and not economics as known today.⁸ The second sub-period covers the two World Wars and interwar years. The most striking development in this period was the mass migration of scientists of all categories, including economists, from Nazi-dominated Europe to the US. This was the catalyst which established the dominance of US PhD education, with its emphasis on mathematics, up to 2000 at least. The third sub-period covers from the 1950s to 2000 and highlights how from the late 1960s on the European countries reshaped their PhD programmes on American lines, boosted by the expansion of the European Union, and later the formation of the European Economic Association in the mid-1980s. The last subsection covers briefly the period since 2000, which suggests an upswing in European PhD education in economics. The LSE in Britain had competed with the top American colleges in terms of quality of PhD graduates well prior to this, and they were joined by several British universities well before 2000. However, there are now European PhD programmes in for example Germany, France, Italy, Netherlands, Spain and Switzerland which can compete in the top 50-category in the world, and with some in the top 10 depending on what ranking system is adopted.

The question of interest for later is whether this changing pattern in the last 30 years or so is reflected in the PhD and job location of the top young economists in the world today, for which we have a sample of around 350.

19th Century to World War I

Continental European countries were the first to institutionalise the study of political economy within universities in the 18th century. (Fourcade, 2006). This spread to parts of Continental Europe in the late 19th century but not to Britain. In America political economy was not an

⁸ Political economy type doctorate programmes though have re-emerged in the last two decades, in both the US and Europe.

independent discipline until 1870 and prior to this was placed under the safe jurisdiction of moral philosophy taught by ordained ministers (Parrish, 1967). The term economics did not become common as a replacement for the term political economy there until 1900, although the American Economic Association was founded in 1886. Many academics in political economy were self-taught, supplemented by study abroad. For this they turned to Europe, especially Germany, the attraction being the much more developed seminar system and the emphasis on specialisation. Many American students in fact attended three or four German universities in an academic year (see Parrish, 1967, for the reasons for this).⁹

The German PhD in political economy was recognised as superior to that in America at this time, at least up until 1890.¹⁰ Of the 76 leading American economists examined by Parrish between 1870-1900, 53 had studied in Germany.¹¹ By 1904 though a noticeable decline was evident in the trend to study in Germany. The AEA started in 1886 with just 182 members but had reached 800 by 1900. In a few decades economics as a profession had risen from obscurity to professional status, with few academic economists there needing to travel to Germany for their academic development, although several had very close links to Britain. In less than three decades after this, the movement from America to Europe for further education was dramatically reversed.¹²

⁹ Bear in mind that prior to 1890 the language requirements for any PhD were heavy and included not only Greek and Latin but also French and German.

¹⁰ The first PhD in Political Economy in America was awarded in Harvard in 1875 (Harvard did not award a second PhD in Political Economy until 1895) the second in Yale in 1877 and the third and only other such degree in the decade in Johns Hopkins in 1878 ((Parrish, 1967).

¹¹ It is interesting to note that Backhouse (2002) when discussing the rise of economics in the US, 1870 to 1930, indicated that two of the most prominent American economists in this period had been educated in Germany, J.B. Clarke (1847-1938) at Heidelberg and J. R. Commons (1862-1945) also at Heidelberg.

¹² Despite the professionalisation of economics only in the early 20th century, some of the most important and best-known names to this day in economics date from before this time, especially from Austria, Britain, France and Italy: for example, Adam Smith (1723-1790), Jean Baptiste Say (1767-1832), David Ricardo (1772-1823), Antoine Cournot (1801-1877), Léon Walras (1834-1910), Gustav von Schmoller (1838-1917), Carl Menger (1840-1921), Alfred Marshall (1842-1924), Vilfredo Pareto (1848-1923) and Max Weber (1864-1925). The work of many of the Continental Europeans in this group was not recognised in the English-speaking world until decades after it was published. See Dorfman (1955), Hutchison (1955) and Letiche (1955) for interesting discussions on this issue. Letiche argues there is always a tendency for established systems of thought to persist through not language barriers, but also dominant schools led by strong personalities in control of academic opportunities.

Interwar, War and Immediate Post-WWII Years

It was during these years that John Maynard Keynes (1883-1946) in Britain produced his greatest work, and it was he who emerged as perhaps the best-known person in the history of economics. He was based largely at Cambridge University where at that time though there were no PhD programmes for students as we know them today. In fact, it was not until the late 1960s that such PhD programmes were introduced in Britain (see later).

What impacted hugely though on PhD programmes, first in the US and later in Europe, was WWI and the rise to power after this of Hitler, followed by WWII. As Paul Samuelson noted, ‘the triumphant rise of American economics after 1940 was enormously accelerated by the importation of scholars from Hitlerian Europe’. (Quoted in Hagemann, 2011). Many of these had strong mathematical backgrounds which impacted not only the discipline but also the development of the graduate education system in America, which remains the ‘gold standard’ for such programmes to this day. As Hagemann notes (see also Scherer, 2000):

The strengthening and extension of the graduate education system at American universities in the first two decades after World War II would hardly have been possible without scientists who had fled the totalitarian dictatorships of Europe. This also holds for economics, where the enormous shift due to emigration from fascist and Stalinist countries contributed significantly to America’s predominance... Whereas the Soviet Union lost 24 of its 36 most outstanding economists and the successor states of the Austro-Hungarian Empire lost 36 of 50, the USA gained a total of 161 through immigration

Among these migrants were some of the best-known names in 20th century economics/econometrics: for example, Simon Kuznets (1901-1985), from the Soviet Union, Franco Modigliani (1918-2003) from Italy, Tibor Scitovsky (1910-2002) from Hungary and Tjalling Koopmans (1910-1985) from the Netherlands. More than ten of them went on to become Presidents of the American Economic Association and the percentage of the Distinguished Fellows, instituted by the AEA in 1965, in the first two decades accounted for by European émigrés was very high. The work of von Neumann (1903-1957), a Hungarian who did most of his work in Germany before leaving there after the rise of the Nazis, and Oskar Morgenstern (1902-1977), a Viennese academic, who also fled following the rise of the Nazis, had a major impact on the use of mathematics not only in statistical analysis but also economic

theory. The build-up of PhD programmes with an emphasis on mathematical analysis was underway.

1950s to 2000

United States.

There is little dispute that the centre of gravity in the world community of economics, and hence PhD programmes in economics, in the period under question was in the US (Barber, 1997 and Fourcade, 2006 and 2015).¹³ There was considerable debate early in this period, and later (see below), as to what should constitute a ‘respectable’ PhD programme. An econometric revolution was underway, the seeds of which were sown by the émigrés discussed above. Over time the mastery of sophisticated mathematical techniques became a defining characteristic of graduate schools in economics in the US and later in Europe. There was a huge expansion in the number of Colleges in the US offering doctoral programmes in economics in the 1960s, aided by public sector largesse and huge injections of private funding. The annual number of doctorates rose from around 200-250 in the 1950s to almost 800 in 1969-70, a level that was rarely exceeded in the following thirty years.¹⁴ The emphasis on mathematics meant that previously standard courses in economic history and economic thought were dropped in favour of more quantitative material. The substantial treatise that had been required in earlier times was replaced in the early 1960s with short papers which demonstrated the candidate’s technical sophistication. This was a trend that spread to most universities in the US, then to Britain and later to Continental Europe.

The supremacy of such PhD programmes came under scrutiny in the 1970s and 1980s, following the world-wide recession in the mid-1970s and the questioning of the role of economics. Maybe it was after all the ‘dismal science’? The huge predicted increase in the number of PhDs in economics did not materialise. There was though an increase in the proportion of females, but from a low base. And there was a further increase in the number of non-Americans awarded American PhDs: from around one-third of the total in 1977 to over a half by 1989. This may have accelerated the emphasis on mathematics, requiring limited skills in English, and/or resulted partly from this emphasis. Verbal skills and institutional knowledge mattered little (see Colander, 2014).

¹³ Most of the material in the following paragraphs is based on Barber (1997).

¹⁴ Heckman (2017) indicated that the annual figure has just exceeded 1,000 in the 2005-2009 period, compared to the projected number of 1,600 expected by the 1980s.

This though may have resulted in the generation of too many ‘*idiot savants*’, skilled in technique but innocent of real economics’ issues (Barber, 1997). As a result, many may have opted for doctorates in business and economic policy, a return partly to the original political economy emphasis, a trend very evident today in Europe also. This is a recurring theme in economics, the value of the technical-type American PhD programme versus the more institutional/historical type of PhD previously followed in Germany, since the early 19th century, and later followed by many other European countries. This type of discussion though is not the focus of this paper.

Britain.

In 1945, British economics departments were dominated by three institutions, Cambridge, Oxford and LSE (Backhouse, 1997).¹⁵ However, in the first two economics was based in the colleges and academics were isolated from other economists even within their own institution. Cambridge though dominated the Royal Economic Society, having built up a pre-eminence first under Marshall and later, Keynes. Under Hicks and Harrod, Oxford began to develop a graduate school in economics.¹⁶ Major change was underway in the 1960s, as the case for quantitative economics gained traction, particularly at LSE. The organisation of the graduate programmes involved an explicit attempt to follow the US model, with Essex leading the way due to a visiting professorship programme that had for US professors between 1965 and 1972.

A key aspect of US-style professional economics is that it changed utterly the nature of the PhD thesis. Up to this, the thesis amounted to a substantial monograph, probably taking several years and not a prerequisite for an academic post. There were no coursework requirements. ‘Some regarded the PhD as Continental nonsense, while others regarded postgraduate work as necessary only for slow learners and people with unfortunate histories’ (Backhouse, 1997 p. 43).¹⁷ Coursework was though introduced in many universities in the

¹⁵ This section relies heavily on Backhouse (1997).

¹⁶ Backhouse (1997) argues that Oxford and Cambridge also were geared to producing generalists, who moved in the same circles as policymakers with no pressure to publish in the way accepted in America, until decades later.

¹⁷ Fourcade (2009) argues that in ‘Britain, the identity of economists has been historically shaped by a political culture centered on small, tightly knit elite societies that traditionally enjoy great authority in producing public discourse and conducting the affairs of the nation, and by the nonprofessional, gentry tradition of the public service. This has produced a scientific field organized around the authority of elite institutions and personalities, but where the ability to communicate economic ideas in plain and eloquent language (through personal networks and contributions oriented toward the general public, for instance,) is also highly valued’, p. 16. In this book she compares the role of economists over a long

1960s, as a requirement for the PhD. The D. Phil (PhD equivalent) was introduced only in Oxford in 1968. The one-year MSc degree in economics at LSE started in 1964 and a full PhD programme only in 1981. Many of the new universities such as Essex and Warwick in fact led the way with taught graduate programmes in economics. Cambridge only followed this pattern in the mid-1970s, introducing a taught M. Phil and much later the requirement of coursework as a prerequisite for PhD registration. As a result, LSE emerged as the dominant British institution during these years in terms of PhDs in economics. The days of the domination of Cambridge in the first half of the century had come to an end.

The 1970s saw major changes in the external funding situation for British universities, with increased pressure to publish to receive state funding and external pressure to publish in journals, as opposed to book and reports. That led to changes, some of which were considered negative, but also to a much higher research impact, in terms of the usual ranking metrics used today.

Continental Europe.

Changes were afoot also in some Continental European economies soon after those in Britain. The countries where English was the widely spoken language, were first to follow, for example the Netherlands and Sweden (see Sandelin, 1997, and van Winden, 1985). Sweden introduced an American-style PhD programme as early as 1969. This reflected perhaps the huge emphasis placed on English, with all PhD theses in economics produced there by 1993 written in English.¹⁸ There were attempts to gain economies of scale through linked PhD programmes in Belgium, the Netherlands, and between some universities in Britain and the Continent (see

period in Britain, France and the US, where in the case of the first two there was a very close relationship to government and where in France an academic background was not required in terms of influencing public policy. Fourcade (2015) contains a rather critical sociological overview of the role and dominance of economics among the social sciences in more recent decades.

¹⁸ It is interesting to note that a Commission formed there suggested in 1992 that Sweden had room only for one large postgraduate department of economics (Sandelin and Veiderpass, 1997). In 1965, the *Swedish Journal of Economics* changed its name, from Swedish, and published articles only in English. Another interesting fact to note is that in the period 1903-07, more than 50 per cent of the foreign books were in German (reflecting the dominance of Germany at that time as seen earlier, but by 1954-55 this share had dropped to 15 per cent, compared to in English 35 per cent. An even more striking observation is the following. Between 1895 and 1929, 74 per cent of doctoral theses in political economy there were written in Swedish, 22 per cent in German and 4 per cent in English. By the 1970s, 50 per cent were still in Swedish and 50 per cent in English, and by 1992 and 1993, *all* were written in English.

Portes, 1985).¹⁹ A major development was the formation of the European Economic Association (EEA) in the mid-1980s followed by some soul-searching on the future of economics in Europe. Portes summed up the views of many at the time, perhaps, with the following.

The 'brain drain' problem will continue. If the U.S. is Mecca, a significant proportion of the best Europeans will go there for training and jobs at some stage, and they should. We must develop ten or so first-class PhD programmes in Europe. With a move towards centres of excellence and some success in implementing the other proposals here, this may be feasible; to aim for more, even in a decade, would be unrealistic. Until we have PhD programmes comparable to those of the best American departments, however, we must send the best European students to the U.S. (Portes, 1987)²⁰

Frey and Pommerehne (1988) highlighted the American domination, a topic to which Frey and Eichenberg (1992 and 1993) returned with a stout defence of the European system of PhD graduation.²¹ While there was real concern about the decline in the importance of the European PhD programmes, there was also a debate on whether or not there was a distinct European economics which should be preserved (see Frey and Frey, 1995, *Kyklos*). Some of the most important names in economics at the time contributed to this special edition of *Kyklos*.

There were and still are disputes on the methods used to rank economists and economics departments around the world (see Neary et al, 2003), with different methods giving strikingly different results, but in all the domination of US economists and economics departments overall stood out.²² It may take many more years to change this situation as the top economics journals, in terms of citations and hence rankings, are based in the US. The *QJE* is Harvard-based and the *JPE* Chicago based, with a marked preponderance of papers by their 'own people' in contrast to the *AER* is much more balanced by institution in terms of journal space (Fourcade,

¹⁹ Eggertsson (1995) argued that in 'Europe, language barriers, nationalism, antiquated organization, and restrictive practices in the labor market have blocked the development of a common academic market. Industrial organization takes its character partly from the wider institutional framework and academia is no exception', p. 207.

²⁰ See Kolm (1988) for a rather critical response to the suggestion by Portes regarding the use of English as the lingua franca, in economics.

²¹ An issue posed again by Collander (2014) and others in the same volume.

²² See Osterloh and Frey (2014) for a critical overview of the use of rankings in general in economics.

2015). In 2002-03, the proportion of Harvard *graduates* publishing in the *QJE* was 20.5 per cent, with nearby MIT (and hence likely to have regular contact with *QJE* academics) having 16.4 per cent, the next highest being Princeton with just 7.4 per cent. The proportion of graduates publishing in the *JPE* is over ten per cent for Chicago, Harvard and MIT, with almost 10 per cent of *JPE* pages written by Chicago-affiliated scholars.²³ It will as a result, take time to overcome the stable supremacy of these universities in world rankings. While the *AER* is not affiliated to any specific university, it is the journal of the AEA. The latter has around 18,000 members, but the AEA leaders are drawn overwhelmingly from the discipline's elite departments, particularly the top five ranked Colleges (Fourcade, 2015, Figure 2).

3 21st Century

Rankings as a possible indicator of PhD Importance

Has the situation changed in the last twenty years or so? For this we turn first to current-day rankings, which as noted earlier should have a close association with the standing of PhD programmes. While rankings of economics departments around the world can vary, very considerably in some cases, there are some general statements that can be made about the situation today. First is the dominance of American colleges in the top 10, no matter what measure is used. Second, look further though and a picture of a re-emerging Europe in the 21st century can be detected. As noted earlier, there is probably a strong relationship between the standing of a department and its PhD programme. Hence, if there has been a change in these rankings then a priori one would expect the highest-ranked departments to produce, the 'best' young economists, best being defined for later purposes as winners of young economist awards. There can though as noted earlier be huge variations in these rankings.

For example, using the Tilburg research rankings,²⁴ LSE and Oxford appear in the top 10, and in the top 50 there are 18 European as opposed to 24 US colleges. England has the

²³ Heckman (2017) shows that in the period 2010-2016 the proportion of papers published in the Harvard-based *QJE* with a Harvard affiliation was 24.7 per cent (33.3 per cent of the 'top' articles there). The corresponding figures for 'neighbour' MIT were 13.9 and 18.8 per cent. Combined then the two accounted for almost 40 per cent of the total. The title of the Heckman paper is the 'curse of the top five'. For the Chicago-based *JPE*, the corresponding figures for articles with an author Chicago-affiliated were 23.8 and 14.3 per cent,

²⁴ <https://econtop.uvt.nl/rankinglist.php> Top 100 ranking of economics schools based on publications in 36 of the top-rated journals in their database, for the last five-year time-period, 2015-2019 in this case. It is acknowledged though that all such rankings have problems (see Neary et al, 2003 and, also, Combes and Linnemer (2003) for their use in a European context.

most number of universities in the European rankings (in order, LSE, Oxford, UCL, Warwick, Essex, Nottingham) with 6 of the 18, but among the top 50, using this measure, are also Bocconi (Italy), Zurich (Switzerland), Paris and Toulouse (France), Munich, Bonn and Cologne (Germany), Barcelona (Spain), and Tilburg, Amsterdam and Rotterdam (Netherlands).

The *Times Higher Education* (THS) ranking of departments of economics/econometrics covers teaching and international outlook as well as research. The main emphasis though is on research: using their different indicators the total allocated to research was almost 80 per cent.²⁵ Using just research, they rank 20 US universities in the top 50, compared to 17 for Europe. England accounts for four of these (in order of ranking, Oxford, Cambridge, Manchester and Warwick). Even though not ranked in the top six UK universities using the Tilburg rankings, Cambridge is ranked second here. LSE and UCL do not figure at all in the top 50 universities, in marked contrast to the Tilburg rankings. There are three German universities in the top 50 (in ranking order, Mannheim, Munich and Bonn, with the first of these appearing only at 51 in the Tilburg top 50).

The final rankings to comment on are those provided by QS.²⁶ Of the top 50, 21 are in the US, and 14 in Europe. Rather surprisingly, only one French (Paris) and one German (Mannheim) economics departments are included (none in the top 25, compared to four English universities (LSE, Oxford, Cambridge, UCL). However, when just research impact is used, the picture changes significantly. LSE again stands out among English universities, but several Continental European universities are now ranked similarly to Oxford, Cambridge and UCL; for example, Paris School of Economics and École Polytechnique (France), Bocconi (Italy), Zurich (Switzerland), Tilburg and Groningen (Netherlands), Bonn, Munich and Mannheim (Germany), . The other part of the QS ranking is based on international reputation with

²⁵ They apportion 25 per cent to citations, 22.8 per cent to research reputation, and around 5 per cent to each of research income and number of papers. See: https://www.timeshighereducation.com/world-university-rankings/2018/subject-ranking/business-and-economics#!/page/0/length/25/sort_by/scores_research/sort_order/asc/cols/scores

²⁶<https://www.topuniversities.com/university-rankings/university-subject-rankings/2020/economics-econometrics> Each of the subject rankings is compiled using four sources. The first two of these are QS's global surveys of academics and employers, which are used to assess institutions' international reputation in each subject. The second two indicators assess research impact, based on research citations per paper and h-index in the relevant subject. These are sourced from Elsevier's Scopus database, the world's most comprehensive research citations database. See also

academics and employers, a much more subjective measure and subject, probably to long lags, given the difficulty of building up brand/reputation.²⁷

The overall picture then is perhaps confused,²⁸ but one thing is perhaps clear, namely that several European universities today offer competitive PhD programmes in Economics, based on the rankings above. Britain has since the 1970s led the way, with some highly ranked departments, followed by the Netherlands, Sweden and Switzerland. Universities in Paris, Toulouse, Bonn, Mannheim and Munich today rank highly on research impact, with one or two universities in Denmark, Italy, Netherlands and Spain also appearing in one or other of the top-50 lists.²⁹ It is true that a few US colleges still dominate the top 10 slots, but any college in the top 50 say should be in a position to offer a quality PhD programme, especially when the emphasis there might be on a specific sub-discipline, such as for example behavioural, financial, labour or development economics.

Fourcade (2015) highlights another very significant change of emphasis in economics, namely the rise of finance and journals related to it in the hierarchy of economics/econometrics journals and researchers. This she links to the rise of Business Schools, with economics departments therein: for example, there are almost as many PhDs in economics awarded in the US in the top 20 Business Schools as there are in the top 20 economics departments. As a result, once very familiar journals which used to rank in the top 10 journals or so, have been

²⁷ Using RePEc rankings some very different results again emerge. Paris School of Economics is ranked highest in Europe using this measure, followed by Oxford and Toulouse. Six English universities are in the top 50 (all in the top 50 also using the Tilburg rankings). Barcelona, Zurich, Amsterdam are also in the top 50, but no German university is ranked in the top 50, Munich being the highest ranked. Aarhus and Rotterdam (Netherlands) and Leuven (Belgium) are included, even though not ranked in the top 50 by the Tilburg rankings. See <https://ideas.repec.org/top/top.econdept.html> This analysis is based on data gathered with the RePEc project, in which publishers self-index their publications and authors create online profiles from the works indexed in RePEc. Citation analysis is performed by the CitEc project, abstract views and paper downloads are counted by the LogEc project, and the various rankings are then established. Another major source is the so-called Shanghai ranking, based on a variety of factors, but mostly research. Using this system, 29 US universities are ranked in the top 50, compared to 14 from Europe, and just 7 from the rest of the World. Again, though it includes some universities not appearing in the other rankings and vice versa. <http://www.shanghairanking.com/Shanghairanking-Subject-Rankings/Methodology-for-ShanghaiRanking-Global-Ranking-of-Academic-Subjects-2019.html#3>

²⁸ See also Neary et al (2003), Tombazos (2005) and Osterloh and Frey (2014) for a discussion of the issues that can arise.

²⁹ PhD students though may choose a university not for its overall ranking in economics but in a specific area, such as macro-finance, public economics, economic history, resource economics, development economics etc and the rankings in these cases can differ greatly from the overall rankings. See <http://econphd.econwiki.com/rankings.htm>

displaced by much more business-oriented economics journals, especially in finance and the economics of marketing. For example, using impact factor, there were three finance and three marketing journals in the SJR impact ranking of economics/econometrics journals in 2017.³⁰ Using the H-index, there were two financial journals and one marketing journal in the top five in 2017. In time this change of emphasis is likely to have a profound impact on rankings.

English as the Lingua Franca

One factor explaining the above is probably the spread of PhD programmes taught through English, in non-English speaking countries, in the past mainly in the Netherlands and the Scandinavian countries, but today also in the large European countries, France, Germany, Italy and Spain. As English has become the *lingua franca* of the academic world in economics, this allows graduates all of whom may have English to choose now not just between their home country and an English-speaking country, but any of the non-English speaking countries offering PhD programmes in English. Besides, while Europe still does not offer such attractive financial PhD funding as the US does to non-nationals, fees in Continental Europe are mostly way below those in the top US colleges. Moreover, it appears that funding opportunities are growing in Europe.³¹

Incentives have also changed in Europe in the last twenty-five or so years, including in the German-speaking countries of Austria, Germany and the Switzerland, as noted in the following.

Several reforms have been carried out in the German-speaking area in the last decades, in order to modernize as well as internationalize research and career incentives. Doctoral students are increasingly encouraged to publish in peer-reviewed international academic journals, traditional career paths have been broadened by the introduction of assistant professorships (Juniorprofessur), and budgets of public universities (the vast majority of universities in the German-speaking area) have been increasing steadily from the 1990s onwards. (Önder and Schweitzer, 2017, p. 1298).³²

³⁰ <https://www.scimagojr.com/journalrank.php?category=2002&area=2000&year=2017>

³¹ https://www.postgrad.com/fees_and_funding/european-funding/student-funding-in-europe/

³² They also note that the share of journal articles accounted for by North American PhD graduates is dominant only in the traditional top five journals, the possible bias in which towards top US colleges has been noted earlier.

Formation of EEA: ‘Ryder Cup’ Effect?

A further factor may be the formation of the EEA, in the mid-1980s, the benefits of which are only now becoming evident (as argued by Fourcade, 2015), given that setting up PhD programmes in English, in non-English speaking countries takes time. This should also have impacted on the labour market for economists in Europe, where the incentive structures in the past were far less conducive than in the US (see Mueller, 1995, and Portes, 1997). The EU institutions have also played a part by making some funding conditional on cross-national collaboration, much of it for applied/policy type research, thereby emphasising scale and specialisation in European research. But only in 2019 was an EEA job market for young graduate economists established.³³ There has been a major job market section to the AEA annual conference for years, which in turn attracts a multitude of potential employers, academic and otherwise, and in turn a host of the top graduating PhD students from around the world, thereby further enhancing the image of the AEA as the pre-eminent economics association in the world. As Fourcade (2015) argues for ‘the aspiring PhD graduate the real action at these conferences takes place in the hotel suites where the hiring parties – other academic departments, but also government agencies, international institutions, and private sector firms – interview job candidates for several days on end. Meanwhile in the public meeting rooms, the more-established scholars present their papers to their peers’ (p. 97).

There is little doubt that scale and specialisation matter in economics research and to effect this, the organisation of research needs to be organised at a European level, to rival the situation in the US and in time possibly China. The same arguments that apply to mergers in the industrial sphere apply also to research. And indeed also to sport, such as golf, the formation of a European Tour being a catalyst for major European success in the Ryder Cup between the US and Europe.³⁴ This has been recognised in the EU with funding now linked to cross-country co-operation and, also, involving the many new research institutes in economics that have grown up in Europe in the last 25 years.³⁵ Thus the changes voiced by Portes (1997) appear to have been realised, at least in part. As such, it could be the case that what Mueller (1985) predicted, following the formation of the EEA, may also have been partly realised.

³³ In 2019, interviews were held in Rotterdam, with the top European universities not going to the AEA, with the US applicants having to travel to Europe.

³⁴ The Ryder Cup was extended from a ‘Great Britain and Ireland’ v US golf contest in 1979 to include Continental Europe. Prior to this the competition was dominated by the US. Europe has won 18 of the 30, the US 11 and 1 tied, of the contests held since then. The PGA European tour as constituted today was established in 1984.

³⁵ See Fourcade (2014) about why Europe may have developed as an important regional centre.

As more and more Europeans compete for space in the same set of journals, it can be expected that this competition will spill-over to the job market. Even if within country competition does not change, cross-country competition is likely to do so. Signs of this are what appears to be more intra-European but cross-national movement of academicians, and perhaps the beginning of a return migration of European academicians from North America. (Mueller, 1985.)

It may also be the case that since then the migration of young European economists to pursue a PhD in the US is already in decline and hence that the issue of return migration may not even arise, a topic to which we now turn.

4 Recent Young Award Winners in Europe and US:³⁶ Where they did their PhDs

The aim here is to use a sample of around 350 of the best young economists in the world in the last 20 years to ascertain to what extent the situation described above may have changed. As citations tend to develop over time, we decided to include in our sample the names that other august institutions consider ‘top young economist’ in terms of the granting of an award and hence have left the selection of our sample to these bodies. The following awards were used, with only those who received the awards aged under 60 in 2020 by and large included. While some of these awards are well known, others are not, and indeed some of them are of recent origin, especially the major prizes awarded in Europe. This section will examine six such major awards, starting with the Sloan Research Fellowships, mostly because the sample is relatively speaking so large.

³⁶ There are several prizes devoted to young economists, but many of them are allocated for a single conference presentation or a specific journal. For example, *Reinhard Selten Prize* is awarded to an author or authors who have presented papers in a session of the open meeting at the annual conference of the *Verein für Socialpolitik* and none of the authors may be older than 32 years in the year of the award. The Royal Economic Society’s (the British Economics Association, prior to 1902) *Austin Robinson memorial prize* is for the best paper published in the *Economic Journal* in a given year by anyone who is within five years of being awarded their doctorate. The British Academy’s *Wiley Prize in Economics* is awarded annually, but only since 2013, for achievement in research by an outstanding early career economist.

Sloan Research Fellowships.

The first Fellowships were awarded in 1955. Originally awarded in physics, chemistry, and mathematics, the Sloan Research Fellowships have expanded over the decades to include the support of *early-career* researchers in a total of eight scientific and technical fields, including economics since 1980. Around 8-10 are awarded to economists each year and the selection committee in 2020 consisted of three prominent academics from top US universities.³⁷ Candidates must be based in an academic teaching and research institution in either the US or Canada and must be tenure track though untenured at the time of the award. Thus, they are geared to those N. American-based ‘rising-star’ economists.

These awards though at not confined to N. American nationals and as can be seen in Figure 1(a) around 45 per cent of the awardees in the period shown did their bachelor’s degree outside N. America, Europe accounting for 33 percentage points of these. This confirms a continuing flow of top European undergraduates to N. American universities to undertake their PhD work. Figure 1(b) provides details on named universities for the undergraduate degree for all the Scholars. It is striking that 14 per cent did their undergraduate degree at Harvard, but no other university accounts for more than 5 per cent of the total. Nonetheless, just five universities (Harvard, Princeton, Yale, UCLA and MIT) account for more than half of the Scholars who did their undergraduate degree in the US. There is a much wider spread for those who did their undergraduate degrees in Europe, but still with three universities, Bocconi, ENS Paris and Bonn accounting for over a quarter of the total.

Figure 1: Sloan Scholars’ Undergraduate Degree Breakdown by Broad Geographical Area, 1990-2020 (n=229) and by Univeristy

A much more concentrated pattern emerges when the geographic location of where the Scholars did their PhD programmes is examined. Two universities, Harvard and MIT (both in Boston), together account for 46 per cent of the total. When Princeton and Stanford are added, these four universities combined account for 62 per cent of the total. Thus, there is a very marked concentration in terms of where the Scholars did their PhDs, with hundreds of N. American universities never having had a PhD graduate awarded a Sloan Fellowship.

Figure 3 provides some evidence on changes in this regard over time by comparing the 1990-1994 period to the more recent period 2015-2020. The dominance of Harvard and MIT

³⁷ The 2020 selection committee consisted of academics from UCLA, Yale and Stanford.

combined is unchanged, with the two accounting for 56 per cent of the total in the more recent period, compared to 53 per cent in the earlier period. When Stanford and Princeton are added, these four universities account for 72 per cent of the total, as opposed to 71 per cent in the earlier period. This reflects a remarkable and unchanging concentration on just four universities in the whole of N. America in terms of success of their PhD graduates in receiving Sloan Fellowships.

Figure 3 shows however some change, in terms of gender, with female Fellowship winners rising from 10 in the earlier period to over 27 per cent in the more recent period, with males still accounting though for almost three-quarters of the total.

Figure 2: Sloan Scholars' PhD Degree Breakdown by University, 1990-2020 (n=229)

Figure 3: Sloan Scholars' PhD Degree Breakdown by University, and by Gender, 1990-1994 (n=38) and 2015-2020 (n=48)

John Bates Clark Medal, the Bernácer Prize and the Yrjö Jahnsson Award

The John Bates Medal is awarded by the American Economic Association to the American economist under the age of forty who is adjudged to have made a significant contribution to economic thought and knowledge. The award was made biennially until 2007, but from 2009 has been awarded every year. The award is named after the American economist John Bates Clark (1847–1938), who as noted earlier did his doctorate in Germany. Although the Clark medal is billed as a prize for American economists, it is open to all candidates working in the US at the time of the award. The AEA Electoral College, consisting of the Association's Honors and Awards Committee and voting members of the Executive Committee, selects the winner.

The *Bernácer Prize* is awarded annually to a European young economist who has made an outstanding contribution in the fields of macroeconomics and finance. The prize is named after Germán Bernácer, an early Spanish macroeconomist. The prize was created in 2001 by the OBCE (Observatorio del Banco Central Europeo). It was established to recognize the work of young European economists and to stimulate research on eurozone macroeconomics and financial issues. It is modelled on the John Bates Clark Medal, and prizewinners are European Union (EU) country economists under the age of 40 at the time of the award. The selection committee members consist of high-ranking European academic economists from European and US universities, chaired by an Executive Member of the European Central Bank.

Finally, the Yrjö Jahnsson Award is given by the Finnish Yrjö Jahnsson Foundation and the European Economic Association (EEA) to European economists under the age of 45 at the time of the award who have made a contribution in theoretical and applied research that is significant to the study of economics in Europe. The selection committee, chaired by the president of the EEA, consists of five members, four nominated by the European Economic Association and one by the Yrjö Jahnsson Foundation. The selection committee consults all EEA fellows individually and uses their responses together with their own judgment to form a short list. The first year in which the Award was made was 1993, and the figures to follow track those who received this prize, starting in 2001,

The profile of the winners of all three Awards is outlined in Figures 4, 5 and 6 using similar metrics. In relation to the Bates award, it can be seen, that eight of the sixteen did their undergraduates degrees in Harvard or Princeton. The concentration in terms of PhD locations is even more marked, with Harvard and MIT accounting for eleven of the sixteen. Twelve of the sixteen are in just three universities, and all in just six universities, including two European universities. In terms of where they are located at the time of writing, all belong to just six US universities, with MIT and Stanford accounting for nine of the sixteen awardees. Almost a third are female.

The picture in relation to the *Bernácer* prize is similar but much less concentrated in terms of location of undergraduate degree and current place of work. Even taking broad country groups, there is a much more diverse background in relation to undergraduate degree, five having taken their degree in France and three in each of Germany and the UK. But, when looking at the location of where they received their PhD, the pattern is very similar to that for the Bates award. Even though an award for a European economist, fourteen of the sixteen did their PhDs in four universities in the US, namely MIT (5), Harvard (4), Stanford (3), and Chicago (2), with only four getting their PhD in Europe. Besides, only five of them are based in Europe for work purposes. Thus not only is this award modelled on the John Bates Award, but the patterns of location for PhD and work are remarkably similar for both, with the US dominating in terms of both, even though the *Bernácer* prize is geared towards young European (presumably by birth or first degree) economists. Females account for less than a third of either.

The Yrjö Jahnsson Award is as seen linked to the EEA, and covers all areas of economics, unlike the *Bernácer* prize. It is also specifically connected to both theoretical and applied research, significant to the study of economics in Europe and hence one would expect

a different pattern of award winners to emerge. In terms of undergraduate degree, the four big European countries are prominent, as one would expect: four took their degree in each of Germany and the UK and three in each of France and Italy. Nine did their PhDs in Europe (LSE with three). The other seven did their PhDs in the US (MIT, 3, Harvard 2). Fourteen of the sixteen are based in Europe though for work, five in the UK, three in France and two in Germany. Only three of the sixteen are females, meaning for the three awards taken together less than a quarter of the total are female.

Figure 4: John Bates Clarke Medal Winners, 2001-2020 s (n=16)

Figure 6: Germán Bernácer Prize, 2001-2018 (n=18)

Figure 5: Yrjö Jahnsson Award, 2001-2019 (n=16)

Prix du meilleur jeune économiste de France and the Gossen Award

The first of these is, literally, the Best Young Economist of France Award and is an annual award given since 2000 by the daily newspaper *Le Monde* and the Cercle des économistes. This is a French think-tank founded in 1992 and is made up of 30 economists who are also French university academics. It is given to French economists under the age of 40 at the time of the award.

The *Gossen Award* is allocated every year by the *Verein für Socialpolitik*, an association of about 4.000 German-speaking economists from over 20 countries, primarily Germany, Austria and Switzerland. It is one of the largest and oldest (dating from 1873) association of economists in the world. The aim of the award is to promote the internationalization of economic research by residents of Germany, Austria and Switzerland. The most important criterion for the prize is publication in internationally recognized journals. The winner is chosen by the Executive Council of the Association,

In relation to undergraduate degree for the *Prix*, there is an extraordinary concentration on one university in Paris, ENS, with 13, and 12 more in the rest of Paris, meaning that 25 of the 26 did their undergraduate degree there. A more diverse picture emerges in relation to where they took their PhDs: still 14 of the 26 in Paris, but remarkably 7 in MIT. In terms of work location, 11 are in France, and 13 in the US (Harvard, 3, MIT, 2). Less than a third are female. So, again, even with an award specifically geared at young French economists, many of them obtained their PhD in the US, seven as noted at MIT.

Turning now to the Gossen Award, not surprisingly 15 of the 20 obtained their undergraduate degree in Germany, but unlike in France are much more widely dispersed. Seven of them obtained their PhDs in the US (Harvard 2, Yale 2), and nine in Germany (Bonn dominating with 5). In terms of work location though only one is based in the US and sixteen in Germany (Bonn 4, Munich 4, Berlin 3, Frankfurt 2). Less than one-tenth are female. Even then in relation to the Gossen awards, any flows to PhD programmes are from Europe to the US, although less than in the case of the Prix. Paris has certainly established a major presence in terms of PhD programme success, and to a lesser extent London and Bonn. While there is evidence that many more top young European economists undertake their PhDs in Europe, there is still a sizeable proportion of them going to the US for their PhDs, with no evidence at all that top young American economists are coming to Europe to undertake their PhDs, as was so common at the end of the 19th and start of the 20th century as seen earlier. Within Europe though there has been a decisive shift, with France and Germany, and to a lesser extent Italy, having universities with top PhD programmes. The UK, which was once dominant in Europe in this regard, has only one city which appeared in these awards as a place where the PhD was undertaken, namely London (LSE and UCL). And even then, most of these are not British nationals. London and to a lesser extent Oxford, may therefore be still important world-class centres for PhD programmes in economics, very few who take them are British born.

Figure 7: Prix du meilleur jeune économiste de France, 2000-2020 (n=26)

Figure 8: Gossen Award, 2000-2019 (n=20)

EEA Young Economist Awards

These are awarded to authors under 30 years of age or no more than 3 years past a PhD defence of outstanding papers presented during contributed sessions of the EEA annual congresses for over 20 years. In 2016, the EEA Council decided that eligible candidates (and all co-authors) should be no more than three years past a PhD defence. This award then applies to an even younger group than those above. Moreover, since it is based on one paper presented at a conference it is not unlike the others based on a spread of publications, and as such is the least reliable by some distance of overall research potential. Yet, it may be illustrative in terms of throwing light on the locations, in terms of undergraduate and PhD degrees, of a young and perhaps a rising group of European economists.

In terms of country where the undergraduate degree was undertaken, Germany (11 out of 44), France (8) and Italy (6) are the top three. Surprisingly, there were only three from the UK, just

one more than Ireland, less than ten per cent of its population. When we moved to PhD programmes though the picture changes dramatically. Fifteen of the forty-four did their PhD in the US, four in Columbia, two each in MIT and Chicago, and one in Stanford. Twenty-nine did their PhD in Europe, six in France, six in the UK, four in Italy and only two in Germany (the same as for Ireland).

5 Concluding Comments

The first part of this paper outlined the long-term pattern in the evolution of doctorate education in economics in the US and Europe, from 1880 onwards. These two continents always dominated, and still do, in terms of top doctorate programmes in economics, with the US in the ascendancy in this regard from at least the 1920s. That was not always the case though as seen earlier, with Germany, especially, occupying this role in the late 19th century. Indeed, it was deemed as essential for US economists to have visited if not obtained their doctorate there at the time. A good example of this is John Bates Clarke who obtained his doctorate from Heidelberg, and after whom the most prestigious prize in economics in the US is awarded. This pattern began to change at the beginning of the 20th century, with the rise of the American Economic Association. The swing to America became an avalanche though in the 1930s and 1940s, as many great names in economics fled Nazi-occupied Europe for the US. This also marked the emergence of the modern version of a doctorate in economics, as many of these migrants came from a mathematical background, a form of international ‘language’ that made it much easier for them to integrate into and influence the shape of doctorate programmes, than for those with a more political economy and hence more ‘literary’ background.

Surprisingly perhaps formal doctorate programmes were not introduced to Cambridge until the mid-1970s, even though Cambridge economists were among the most influential in the world in the first half of the twentieth century. In fact, it was in the lesser-known British universities where American-style doctorate programmes were first introduced, with in time LSE becoming the pre-eminent centre there for such programmes. American-style doctorate programmes were also introduced in Continental Europe around this time, but mainly in the smaller countries with a strong presence of spoken English, such as Sweden and the Netherlands. In time, English became the *lingua franca* for economics and with this the large European countries followed suit, especially Germany, France and Switzerland, but also Italy and Spain, in the last twenty years or so. As such, a viable European-based choice of doctorate programmes has become available in the last two decades or more, delivered in English and hence accessible to a much wider potential group of top students.

The formation of the European Economic Association (EEA) in the mid-1980s was also an important catalyst probably for this changing doctorate landscape, but it was not until 2019 that the EEA organised a Europe-wide jobs market for young economists, following years of US dominance in this regard. As such, its impact on the location after completion of the doctorate for top young economists cannot be ascertained for some years yet.

In order to quantify somewhat the changes that the above developments effected, the second part of the paper reviewed around 350 young economist prize winners, based on prizes offered in both the US and Europe, over circa the last two decades. Some clear patterns emerge from this examination.

In relation to the prizes for American-based young economists, the picture is striking in several ways. In relation for example to the Sloan awardees, while almost one half of them obtained their undergraduate degree outside N. America (mostly in Europe), all did their PhDs in the US. Even more striking perhaps, around 45 per cent of them obtained their doctorates at Harvard and MIT, both based in the greater Boston area. Moreover, this dominance has changed little if at all in the last thirty years. Thus, Europe provides almost half of the awardees, and within the US, just two universities in turn account for almost one-half of the awardees in terms of doctorates. As they must all be based in the US at the time of the award, none of the Europeans had at the time of writing returned thereafter to work in Europe, representing therefore a real ‘brain-drain’.

The ‘story’ in relation to the John Bates Clarke Medal and the Germán Bernácer Prize is broadly similar to the Sloan Awards. MIT and Harvard account for as many as eleven of the sixteen for the first of these in terms of location of doctorate. Four of them had done their undergraduate degree, and two their doctorates in Europe, again representing a significant brain drain from Europe to the US, but on a lesser scale. In relation to the Bernácer Prize, the story is very little different. All but one of the eighteen did their undergraduate degrees in Europe, but fourteen did their PhDs in the US, MIT and Harvard again accounting for a half of this the total. For fourteen also the US is their primary work location. The picture though alters somewhat when the third of these general awards is examined, namely the Yrjö Jahnsson Award, presented by the EEA. Again, all but two of the sixteen awardees did their undergraduate degree in Europe, but only nine their PhD there, with Harvard and MIT accounting for five of the seven who did their doctorate in the US. All but two though work primarily in Europe representing what Albarrán et al (2017) term ‘brain circulation’, as well as ‘brain drain’.

In relation to the major country-specific European awards, a somewhat different picture emerges. In the case of the French awards, twenty-five of the twenty-six did their undergraduate degree in Paris, an extraordinarily high figure. Fourteen of them did their PhD also in Paris, three in the rest of Europe, but nine in the US, seven in one university there, namely MIT. Eleven of them work primarily in Paris, the same number as work in the US (five in Harvard and MIT). So, evidence again of a brain drain to the US, either following the undergraduate or doctorate degree. The only award in which this picture is not replicated is the Gossen Award. All but one of the twenty did their undergraduate degree in Europe (mostly in Germany). Seven of them though did their PhD in the US and nine in Germany. All but one however is based for work in Europe, sixteen in Germany. The question is this a hint of a return to significance of German doctorate programmes, as well as the earlier noted presence of German economics departments in the Top-50 world rankings? Only time will tell.³⁸ There is little evidence for this though, so far, either above or in the granted much less important EEA Young Economist Awards, where eleven of the forty-four total did their undergraduate degree in Germany, but only two their doctorates.

While the issue of gender was not a focus of this paper, it is noteworthy that the proportion of prize/award winners in economics is very low, varying between 20 and 30 per cent, but with an increasing share for the Sloan awardees (up from 10 to 27 per cent in 25 years).

This somewhat 'unflattering' picture for Europe has prevailed for some time, as can be seen in Albarrán et al (2017)³⁹ For example, for their group of elite economists in 2007, just

³⁸ The much less significant EEA Young Economist Awards

³⁹ . The key data they used relates to 2007 and covered the spatial characteristics of a sample of 2,605 productive economists, and a subsample of 332 economists with high productivity. The main sample was chosen by examining the full-time researchers listed in the web pages of eighty-one 'top' economics departments, 52 in the US, 22 in the EU and 7 in rest of world. Their choice of journals did not really reflect the high ranking today of finance plus special subject journals today (discussed in main text). The A journals got a weight of 40, whereas the B, C and D journals had a weight of 15, 7 and 1 respectively. This represents a very strong emphasis therefore on just five journals (*AER*, *Econometrica*, *JPE*, *QJE* and *RES.*, three of which are not only in the US but linked to three departments of economics there as discussed in text. The number of B, C and D journals were 34, 47 and all other journals. This means that a researcher would need 40 Class C journal articles to match one article in a Class A journal, with no account taken of co-authorship. In extremis, the Class A journal article might have, say, four co-authors and the Class C journal article (see Kuld and O'Hagan, 2017). They did experiment with a system using less weight on top journals and found not dramatic changes in rankings,

under 60 per cent did their BA in the US, almost 80 per cent did their PhD there, with more than 80 per cent having their current (2007) job in America. Equally striking is the clustering of the elite, in a few colleges in America. Over 30 per cent of the elite did their PhD at Harvard or MIT, with a further 30 per cent doing their PhD at another top American graduate school: in total then, 62 per cent of the elite economists in their sample did their PhD in top American graduate schools.⁴⁰ When they concentrated on individuals who only completed their PhD after 1982 (25 years before their sample year) the dominance of the US was less marked.⁴¹ This led them to suggest a possible diminution in US dominance in the intervening years. There is no clear evidence though of this, judging from the findings in this paper.

Nonetheless, it does seem that in the last thirty years or so strong analytically based doctorate programmes have been available in Europe, delivered in English, something which may not have impacted strongly yet on a reverse brain-drain from Europe to the US. In fact, a significant brain drain in the opposite direction continues, although some ‘brain-circulation’ from Europe to the US and back to Europe is in evidence. A significant number of the top young economists in Europe now appear also to be ‘stayers’, that is studying and primarily working there. The reason is that the centres of excellence are emerging in some European countries, especially in Paris, and to a lesser extent the Netherlands as a unit, Bonn, Mannheim and other European cities such as Barcelona and Zurich. Surprisingly perhaps Britain which led the ‘march’ to structured American-type doctorate programmes, no longer stands out, except for London, but even here many of their top young graduates do not appear to be British born.

We have of course been only looking at young economists, their selection primarily based on publication in the perceived top journals, and hence all mostly in academia. As such,

but in this system the A journal articles were still ranked as 20 times more important than D journal articles, with no adjustment for co-authorship.

⁴⁰ See also Barber (1997) for an overview of the post-war changes in American graduate education in economics.

⁴¹ ‘Our dataset is already ten years old. Moreover, our productivity measure favours older individuals. Thus, to have a glimpse into the situation in 2030, we have investigated a dataset of younger individuals. For that purpose, we eliminate individuals earning their Ph.D. before 1982. Thus, the remaining individuals are, approximately, at most 55 years of age in 2007. The results indicate that, perhaps, the characteristics of top researchers in two decades will be changing in the direction of a reduction in the extraordinary US dominance experienced so far’ (Albarrán et al, 2017, p. 262). Thus, while some account is taken of the more recent economists, namely those who obtained their PhD after 1982 and probably aged under 55 in 2007, those people would be aged only under 67 in 2019. It is interesting though that their findings suggested by then a reduction in American dominance of the top journal authors.

the analysis does not cover the doctorate background of the many top economists working in national and international institutions, such as in ministries of finance, the OECD, the ECB, IMF, etc. (see Backhouse, 2002). Besides, many of these young economists have received awards based on publication in the so-called top journals such as the *AER*, *JPE*, *QJE*, *REStuds* and *Econometrica*. Some though have suggested that these publications have a distinct bias towards graduates of some universities, such as Harvard, MIT and Stanford (see Foucade, 2015, and Heckman, 2017). As such, the achievements of doctorate graduates from other universities are perhaps being undervalued and hence not appearing in the ‘winner’ lists.

It is noteworthy in this regard that Conley and Önder (2014) reached the striking finding that graduating from a top department is neither a necessary nor a sufficient condition for becoming a successful research economist.⁴² Top researchers they argue come from across the ranks of PhD-granting institutions, and lower-ranked departments produce stars with some regularity, although with lower frequency than the higher-ranked departments. Most of the graduates of even the very highest-ranked departments produce little, if any, published research. Indeed, they find that PhD graduates of equal percentile rank from certain lower-ranked departments have stronger publication records than their counterparts at higher-ranked departments.

This contrasts starkly with the picture provided above, both in the US and Europe, for those young economists who have been awarded prizes. As seen earlier, prize winners in both the US and Europe come predominantly from a small number of universities, and in particular a few based in the greater Boston area, London and Paris. There is also the fact that there are now many sub-disciplines within economics (see Backhouse, 2002), with specialist journals of their own. Besides, as noted earlier there are several more business-oriented journals now ranked in the top 10 economics/econometrics journals (both in terms of H and impact-factors) which earlier discussions have not been able to address.

⁴² They covered 14,299 economics PhD recipients from 154 academic institutions in the US and Canada who graduated between 1986 and 2000, and using their publication record, adjusted for quality of journal, over the period 1985 to 2006 they examined in some detail the research output of the PhD graduates from the top-30 economics departments. Önder and Yilmazkuday (2020) also look at various characteristics of peer-reviewed journal publications of graduates of North American economics PhD programmes between 1980 and 2014, chiefly relating to the extent of co-authorship and gender. See also Kuld and O’Hagan (2017) in this regard.

The Ryder Cup led to major changes in the balance of competitiveness at golf between Europe and the US. The same may yet happen in relation to doctorate programmes in economics, but the change has been much slower, so far.

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