

Working Papers No. 128/09

The Education and Training of Gentry Sons in Early-Modern England

Patrick Wallis
&
Cliff Webb

© Patrick Wallis, LSE
Cliff Webb, Independent Scholar

November 2009

Department of Economic History
London School of Economics
Houghton Street
London, WC2A 2AE

Tel: +44 (0) 20 7955 7860
Fax: +44 (0) 20 7955 7730

The Education and Training of Gentry Sons in Early-Modern England*

Patrick Wallis and Cliff Webb

Abstract:

This paper explores the education and training received by the sons of the English gentry in the late sixteenth and seventeenth centuries. Using information from the herald's visitations of four counties, it offers quantitative evidence of the proportion of gentry children who entered university, spent time at one of the inns of court or became apprentices in London. We show that over the period there was little change in the educational destinations of gentry sons: university and apprenticeship absorbed roughly equal proportions; the inns of court slightly less. We also show that a son's position in the birth order had a very strong influence on the kind of education he received. Eldest sons were much more likely to go to university or one of the inns of court. Younger sons were much more likely to become apprentices in London – as we show, trade clearly was an acceptable career for the gentry. There is little sign of a change in the status of different educational choices in this period. Our findings confirm some traditional assumptions about the importance of birth order and normative expectations in determining the life-courses of gentry children in the seventeenth century: historians should not over-state the autonomy of elite children in deciding their futures.

It must be lamented that Parents, for the most part, are guided in the Management of their Offspring by a Set of Notions in no measure conducive to promote the great Ends of Life, the Happiness of Society, or the Prosperity of those to whom they have given a wretched Being: Pride, Avarice or Whim are the chief Counsellors of most Fathers¹

Richard Campbell, *The London Tradesman* (1747)

How children should be educated was, and remains, a perennial problem at all levels of society. Education is one of the key devices by which social groups reproduce themselves and the choices that families make for their children can reveal much about expectations, negotiations

* Acknowledgements: Ian Gadd; Rosie Blau; Chris Minns. RA lady..!

¹ Richard Campbell, *The London Tradesman* (London, 1747), 1-2.

and transfers between generations. As Richard Campbell's warning emphasises, the gentry in early modern England faced particular pressures and temptations when deciding on their children's education. As well as the individual and collective well-being of the next generation, the education and training that gentry children received was inflected by conflicting concerns about preserving social status, conserving the family's lands as a viable estate, and securing future incomes.

In this paper, we examine the relationship between birth order and the education and training received by sons in gentry families in early modern England. Three questions about the prospects of gentry children have attracted most attention from historians. First, as Joan Thirsk famously asked, what were the prospects of the younger sons of gentlemen over this period?² Primogeniture created a crucial barrier between the heir and his younger siblings. It led both Tawney and Stone to argue that the younger son was 'expendable', although others, such as Linda Pollock, have argued for a less bleak picture of ongoing relations.³ Most younger sons in England were expected to establish their own fortunes,⁴ and this raises the second question: could gentry sons enter apprenticeships and pursue careers in business? Grassby, for example, concluded that 'many of those [apprentices] described as gentlemen in the seventeenth century would not have been recognised as such in the sixteenth century'.⁵ However, there is almost no evidence on the actual

² Thirsk, J. "Younger Sons in the 17th Century", *History* 54 (1969), 358-377.

³ R. H. Tawney, "The Rise of the Gentry, 1558-1640", *The Economic History Review* 11 (1941), 3; Lawrence Stone., *The Crisis of the Aristocracy, 1558-1641* (Oxford, 1965), 39; Linda Pollock, "Younger Sons in Tudor and Stuart England", *History Today*, 39 (1989), 24-5.

⁴ Christine Carpenter, *Locality and Polity* (Cambridge, 1992), 214-20; J. T. Cliffe, *The Yorkshire Gentry from the Reformation to the Civil War* (London, 1969), 83-4; Alan Everitt, *The Community of Kent and the Great Rebellion. 1640-60* (Leicester, 1966), 47.

⁵ Richard Grassby, *The Business Community of Seventeenth-Century England* (Cambridge, 1995), 143.

origins of those he, like Stone, lumped among the 'pseudo-gentry'.⁶ Third, how powerful were normative expectations about the way birth order shaped future life-courses? Heal and Holmes have suggested that 'there is, even in the seventeenth century, a recurrent tendency to destine the second or third son for the law, the next for the Church and the youngest for trade, a patterning that must transcend any understanding of the needs of the individuals concerned'. This emphasis on pre-determined patterns is much less visible in some recent work, which has emphasised the involvement of children in deciding on their future, in line with a wider emphasis on negotiation and agency in social relations. In her important study of early modern youth, for example, Ben-Amos suggested that parents 'attempted to arrive at some form of joint decision [with children] about their future careers' through 'assistance, encouragement, cooperation, and a good deal of persuasion'.⁷

The answers to each of these questions directly affect our understanding of the early modern gentry as a social group, strategies for sustaining the position of families within the elite, internal family dynamics, as well as the patterns of social mobility between the gentry and other parts of English society. Despite a number of rich and suggestive case-studies, satisfactory answers have proved hard to find beyond the level of the locality.⁸ Previous studies of the education of gentry children have generally taken one of two approaches. Historians

⁶ The best summary is in: Brooks, "Apprenticeship, social mobility and the middling sort, 1550-1800", in Jonathan Barry and Christopher Brooks ed., *The Middling Sort of People: Culture, Society and Politics in England, 1550-1800* (Basingstoke, 1994), 78-81.

⁷ Ilana Krausman Ben-Amos, *Adolescence and Youth in Early Modern England*, (New Haven, 1994), 63-67, quotation 66. See also: Richard Grassby, *Kinship and Capitalism* (New York, 2000), 362-66.

⁸ For example: Vivienne Larminie, *Wealth, kinship and culture* (Woodbridge, 1995), 51-66; Alan Macfarlane, *The family life of Ralph Josselin* (London, 1970), 117-125; A. W. Purdue, *Merchants and Gentry in North-East England, 1650-1830* (Sunderland, 1999), 37; Mervyn James, *Family, Lineage and Civil Society* (Oxford, 1974), 177; Peter Laslett, "The Gentry of Kent in 1640", *Cambridge Historical Journal* 9 (1948), 153, 161-2.

have analysed samples of gentry, normally for single counties, and then identified whether they entered a university or inn of court.⁹ The relative appeal of apprenticeship is unknown, however, and the representativeness of the sample is unclear. Alternatively, historians have examined the backgrounds of those who entered each of these institutions, producing counts of gentlemen among the masses.¹⁰ These institutional studies inevitably stumble over the ambiguity of the status claims recorded: for example, exactly how genteel was an apprentice who described his father as a gentleman? Neither method is entirely satisfactory. Moreover, given the size of the samples involved, examinations of the impact of birth order on sons' paths has tended to be limited to the comparison of eldest and all younger sons.

Here we seek to resolve some of these problem by beginning with five heraldic visitations from four counties and then linking them to an extensive dataset that encompasses all surviving records of London apprentices from those counties as well as the standard records of entrants to university and the inns of court. Taking those families who convincingly asserted their gentility to the heralds as a sample of (more or less plausible) gentry, we searched for their sons in the registers of entrants to the universities, inns of court and London livery companies.¹¹ This gives us a reasonably large sample of over two thousand gentry sons. We can then examine what proportion of gentry sons pursued one (or more) of the three major paths to higher-level education and training – university, law or apprenticeship - open to them in this period, and what

⁹ Cliffe, *Yorkshire*; Morgan, V. "Cambridge University And "The Country" 1540-1640", in L. Stone ed., *The University in Society* (London, 1975), vol. I, pp. 183-245; Thomas Barnes, *Somerset 1625-1640* (London, 1961); Philip Jenkins, *The Making of a Ruling Class* (Cambridge, 1983).

¹⁰ Grassby, *Business Community*; Wilfred Prest, *The Inns of Court under Elizabeth I and the Early Stuarts, 1590-1640* (London, 1972); Brooks, "Apprenticeship".

¹¹ Attempts to define the gentry continue to provoke debate: Heal and Holmes, *Gentry*, 6-19; Mark Dawson, *Gentility and the Comic Theatre of Late Stuart London* (Cambridge, 2005), 7-13.

impact sons' places in the birth order had on the kind of education they received. As well as the size and range of our sample, our findings have two novel aspects. First, they allow us to contrast the attraction of university and apprenticeship for the same families. Second, they allow us to look at the effect of each position of the birth order on the education of sons, rather than distinguishing only the eldest from younger sons. Our findings do, however, share one common failing of such studies: we can say nothing here about how and if birth order affected gentry daughters, whose marital fortunes relied on the capacity and willingness of their parents to supply dowries.¹²

1. Data and Sources

Our sample includes 2,231 sons of gentry from five heraldic visitations covering four counties, Bedfordshire, Surrey, Somerset and Westmorland, at different points over the seventeenth century. During visitations, the heralds examined genteel families' pedigrees and proofs of ancient use of arms, and could refuse claims or forbid the use of arms if not satisfied.¹³ During this process, they recorded genealogies, which were kept and have often since been printed. The scale of the information they gathered varied. As table 1 shows, the largest county sample is from the 1672 visitation of Somerset, which included 846 sons; the smallest is 165 sons in the Westmoreland visitation of 1666. The visitations contain a large amount of information of variable quality and completeness. To exclude those families that were severely trimmed in the process of entry, genealogies were sampled on the basis that they contained more than

¹² Erickson, *Women and Property*, 86-9.

¹³ Anthony Wagner, *The Records and Collections of the College of Arms* (London, 1952), 55-63; Anthony Wagner, *Heralds and Heraldry in the Middle Ages*, 2nd ed., (Oxford, 1956), 2-6; Adrian Ailes, "Elias Ashmole's "Heraldic Visitation" of Berkshire 1665-66" (unpublished D.Phil thesis, University of Oxford, 2008); Heal and Holmes, *Gentry*, 28.

one son at a recent level of family generation, to indicate relative completeness, and up to two prior generations were included where the quality of the record appeared reasonable. This was inevitably a qualitative selection process, but the results do not appear sensitive to family size and period. For Surrey, we analysed two successive visitations, from 1623 and 1662. Although only separated by forty years it is worth noting that there is a surprisingly limited overlap between them; only nine families were found in both visitations in the same location.¹⁴ This is partially explained by the fall in the number of families recorded: the 1662 visitation listed less than a third of the number of individuals than in 1623. To keep our focus on county gentry, Bristol gentry recorded in the Somerset visitation were excluded.

Although the visitations record only those families claiming gentility at a particular point, the genealogies that the herald's recorded covered a period running from the later sixteenth century onwards. Almost two thirds of our data concerns sons born between 1600 and 1649, just under an eighth between 1575 and 1599 and a fifth between 1650 and 1674. The counties in our sample cover a range of different situations. They are geographically and economically widely dispersed. They also contained differing social structures. In Surrey, on the fringes of London, we have what is arguably the most densely gentrified county, while in Westmorland we have one of the least, on Stone and Stone's measure of the number of large houses per acre.¹⁵

¹⁴ A larger pool of sixteen surnames is common to both visitations. Austins of Shalford; Buckles of Banstead; Coldhams of Compton; Duncombe's of Shalford; Evelyns of Wooton; Haywards of Tandridge; Holmans of Blechingley; Mulcasters of Charlwood; and the Rawlins of Woking.

¹⁵ Heal and Holmes, *Gentry*, 13. There is a reasonable set of county studies for two or our counties; Barnes, *Somerset*; David Underdown, *Somerset in the civil war and interregnum* (Newton Abbot, 1973); C. B Phillips, "The Gentry of Cumberland and Westmorland, 1600-1665", (unpublished Ph.D. thesis, University of Lancaster, 1973).

The visitations present a number of problems as sources. The herald's accuracy, honesty and energy have all been questioned; it is difficult to evaluate the accuracy of the genealogies they recorded; and families may have misrepresented themselves to the heralds.¹⁶ Often only parts of visitation records survive.¹⁷ And they captured only a partial and declining share of the gentry community in the first place: in Somerset, only 19 of the 50 JPs in the county entered their pedigrees, for example.¹⁸ As the purpose of the visitation was to record dynastic claims not family trees, heralds' records were biased in favour of those who survived to adulthood and produced heirs. The heralds undoubtedly under-recorded women and children who died early. This bias in favour of survivors into adulthood is less of a problem here – as our educational choices only apply to those who reached the mid-teens - than the effect of deaths of recorded children prior to the age at which sons might have been educated. If a large number of sons recorded in the visitation died before the age of fifteen, then we are likely to underestimate the proportion who entered one of our three pathways. Even so, because heralds were concerned with the pathway through which titles would be inherited, male birth order did matter to them. While we may miss some of the children, we should find that those who are listed are given in order.

For all their many faults, the visitations offer a reasonable way to overcome the problem of defining gentility. Unlike institutional records, the gentility of the families who had their pedigrees recorded was not just self-attributed, but was tested against the view of the herald involved.

¹⁶ Where available, visitations were checked against the *Oxford Dictionary of National Biography* (Oxford, 2004) (hereafter ODNB). All were accurate. We also checked birth order against birth year for 382 pairs of siblings for whom we had information about both. In all but 5 pairings, birth order fitted with birth year. It should be noted that the independence of both tests is dubious, as the ODNB utilised the visitations, while birth order and year were inevitably involved in the linkage process.

¹⁷ Squibb, G. D., *The Visitation of Somerset and the City of Bristol 1672* (Harleian Society, n.s. 11, 1992), v.

¹⁸ Squibb, *Visitation of Somerset*, xv.

Even when the heralds included those whose pedigree was dubious, the families were at least close enough to gentility in the present generation to see the effort as possessing some value.¹⁹ This is still an imperfect measure, of course. Given the ambiguity of contemporary definitions of gentility, some level of uncertainty is unavoidable, and it should be remembered that gentility could encompass a wide range of levels of wealth and social position. However, it is clear that most of the families found within the visitation were gentry by any standard. Several border on the minor aristocracy, such as the Onslows of Surrey, who were baronets, and who include Richard Onslow, a staunch whig and one-time Chancellor of the Exchequer who was elevated to the peerage as Baron Onslow in 1716 following a long parliamentary career.²⁰ Others are more dubious, and achieved their gentility during the period for which we observe them. The father of the prodigious trio of George, Robert and Maurice Abbott may have had an archbishop, a bishop and a leading merchant and politician among his children, but his own claim to gentility appears more questionable. He is variously, and somewhat contradictorily, described as a merchant, a shearman and an illiterate; while he was able to place one son with a merchant Draper, he was sufficiently financially-constrained to depend on charity to send his sons to university.²¹ At the lower end of the visitations, the landed gentry blurred into substantial local churchmen and professionals. Nonetheless, the most recent and detailed study of a visitation concluded that it did offer a fair sample of the county gentry.²²

The visitations tell us little about the education of children on their own. To trace children's fortunes we examined the surviving records of entrants into several major destinations known to have been popular for

¹⁹ Heal and Holmes, *Gentry*, 28-9, 34-5.

²⁰ ODNB, s.v. "Onslow".

²¹ ODNB, s.v. "Abbot, George", "Abbot, Robert", "Abbot, Maurice".

²² Ailes, "Elias Ashmole's "Heraldic Visitation"", 224-265.

gentry children. It is now well established that a rising proportion of gentry children attended university from the later sixteenth century onwards.²³ Similarly, a period at one of the London Inns of Court was a way into a legal career and the source of a more generally applicable set of skills.²⁴ London was also both the centre of English commerce and the major supplier of apprenticeship training in this period. For Oxford and Cambridge universities we searched the published matriculation lists, which also give some information about the subsequent clerical careers of students.²⁵ For the Inns of Court, we were able to use the listings from the Inner and Middle Temples and Lincoln's and Gray's Inns.²⁶ We lack information on those who entered the Inns of Chancery, but these were somewhat less important as destinations for gentry sons seeking an education.²⁷ Finally, gentry sons' training in business often began with an apprenticeship in London, and we have examined all the surviving Company records of apprentices for the applicable period to identify which sons entered apprenticeships in the capital. The probable levels of under-recording and error for each destination are, unfortunately, not equal. The university registers are probably the most comprehensive source, although far from perfect. The coverage of the inns of court is lower, largely because of the lack of data on the full range of inns; where data exists it is of reasonable quality. Apprenticeship is the most

²³ O'Day, R., *Education and Society 1500-1800* (London, 1982); Heal and Holmes, *Gentry*, 263-4.

²⁴ Prest, *Inns*; David Lemmings, *Gentlemen and Barristers* (Oxford, 1990), 8-17.

²⁵ Joseph Foster, *Alumni Oxonienses*, 8 vols. (Oxford, 1888-1891); John Venn, *Alumni Cantabrigienses*, 10 vols. (Cambridge, 1922).

²⁶ Joseph Foster, *The Register of Admissions to Gray's Inn, 1521-1889* (London, 1889); Lincoln's Inn, *The Records of the Honorable Society of Lincoln's Inn: Admissions 1420-1893* (London, 1896); William Henry Cooke, *Students admitted to the Inner Temple 1547-1660* (London, 1878); H. A. C. Sturgess, *Register of admissions to the Honourable Society of the Middle Temple* (London, 1949).

²⁷ Christopher Brooks, *Pettyfoggers and Vipers of the Commonwealth* (Cambridge, 1986), 158-64. The register for one of the Inns has been published, but lacks father's name to make links with: Christopher Brooks, *The Admissions Registers of Barnard's Inn 1620-1869* (*Selden Society, supplementary series*, 12, 1995), 20-21.

problematic destination, given the partial survival of Company records and the availability of apprenticeships in other towns across the country. All the figures discussed below thus need to be understood as minima and this, along with the unmatched nature of the different visitation subsamples, means that we must be cautious about over-interpreting differences between our samples.

The education received by the sons of gentry families had a relatively flexible relationship to their subsequent activities. Moreover, while our sources cover the main educational pathways taken by gentry children, they are far from comprehensive. We have, for example, nothing but fragmentary information on those who pursued careers in other important areas. One obvious absence is the military, and we know that some gentry sons took this path, such as Valentine Pyne, a Somerset second son who served in the navy in the 1620s and 1630s.²⁸ We also lack information on those who entered one of the continental or Scottish universities, or undertook apprenticeships in other cities, such as John Napper, second son of Thomas of Tintenhall in Somerset, who became a merchant in Bristol, or Benjamin Baber, third son of Richard Baber of Twyverton, Somerset, who became a woollen draper in Bath.²⁹ For obvious reasons, some groups, notably Catholics, are systematically under-represented in our data. And beyond this, there were clearly other ways in which sons acquired an education and experience: John Webb, for example, was trained as an architect by his uncle, Inigo Jones.³⁰

²⁸ N.A.M Rodger, *The wooden world* (London, 1986)

²⁹ Squibb, *Visitation of Somerset*, 7, 27.

³⁰ ODNB, s.v. "Webb, John (1611-72)

2. The Education of Gentry Sons

What education did gentry sons receive in the later sixteenth and seventeenth centuries? As table 2 shows, almost a third of gentry sons in our sample entered university, a London apprenticeship, or spent time at one of the inns of court. This was a high proportion, given the quality of the data involved and the alternatives that were open to gentry sons. We have no good sense of the margin of error in our data, but it is plausible that by the seventeenth century a majority of gentry sons were educated through these institutions.

The different county communities appear to have possessed broadly similar characteristics in the destinations of sons. As can be seen in table 2, the distributions in the different county samples are similar, particularly given the sample sizes and the margin of error in the linkage.³¹ The one partial exception is the sons of Surrey gentry, who entered both University and apprenticeships in the highest proportion of any county. This presumably reflects the county's proximity to London, and the high level of connections Surrey families possessed with the city. Surrey gentry society included a substantial number of families that had earned their position through success in urban trades and professions before removing to the countryside.

Given the persistence of the debate about the gentry and apprenticeship, one of the most striking aspects of table 2 is that a nearly identical proportion of gentry children entered London apprenticeships (12%) as entered one of the universities (14%). Even families in counties as distant from the capital as Westmoreland put one in eight of their sons into apprenticeships in London. Although these were the sons of county

³¹ It should be noted that the proportion of sons from each visitation sample entering each destination (except the Inns of Court) are significantly different when tested using Pearson's Chi-square test of independence. The difference would not appear to be historically significant, however. The differences between the periods and samples are discussed in more detail below.

gentry, not peers, these figures challenge suggestions that apprenticeship was rare among the elite, and that ‘very few younger sons entered trade from the elevated social levels of the county elite’, as Stone and Stone argue.³² The slightly lower proportion of Somerset gentry sons found in London apprenticeships may reflect the proximity of Bristol, with its alternative pool of business opportunities, rather than any resistance to careers in business.³³

While apprenticeships were clearly acceptable options for gentry sons, they were not choosing their trade from the full range of London occupations. Almost 90% of gentry sons were bound to masters in one of London’s ‘Great Twelve’ companies: these twelve companies or guilds’ members had a monopoly on high civic office and they tended also to be home to clusters of merchants. For example, Maurice Abbot was apprenticed to a merchant in the Drapers’ Company, William Garway. He was an early member of both the Levant Company, in which he later became a director, and the East India Company, where he was governor in the early 1620s. Indeed, if membership of merchant organisations offers any measure of commercial success, then Abbot was surely as much a prodigy as his ecclesiastical siblings, for he also joined the Muscovy Company, the Company of Merchant Adventurers, as well as the short-lived French, North-West Passage and Virginia Companies.³⁴ As one would expect, those gentry sons who entered apprenticeships did so at the highest end of the market for training.

It is difficult to extrapolate from the actions of the gentry sons in the visitation to the wider pool of apprentices.³⁵ Youths describing

³² Stone and Stone, *Open Elite*, 234. See also: Joan Lane, *Apprenticeship in England, 1600-1914* (London, 1996), 13, 63; Olive Dunlop and Richard Denman, *English Apprenticeship & Child Labour* (London, 1912), 141.

³³ In the 1690s, 7% of Bristol apprentices claimed to be sons of gentry: Bristol Record Office, 04353 (2).

³⁴ ODNB, s.v. “Abbot, Sir Maurice”.

³⁵ Brooks, “Apprenticeship”; Cliffe, *Yorkshire gentry*, 84-5.

themselves as sons of gentlemen made up between 10 and 20 percent of apprentices from these counties over the seventeenth century. As figure 1 shows, the proportion of gentry apprentices rose to a peak in the middle of the century, before declining in the later decades to reach a level broadly similar to that found a century earlier; there is no sign of an expansion in gentry apprenticeship in the late seventeenth century as Stone and Stone suggest.³⁶ Over the full seventeenth century, an average of 25 gentry sons from these four counties began apprenticeships each year, rising to 37 sons in the peak decade of the 1650s. Given the numbers involved, a proportion of these youths may have used a generous definition of gentility to describe their family background. However, the majority could have been from gentry families. A brief calculation can indicate how wide the definition of gentry would have to be to encompass all apprentices asserting gentility. If 12% of gentry sons were apprenticed (probably an underestimate, but the proportion we find in our sample), then the 25 sons a year found entering London companies would imply the existence of a wider pool of around two hundred gentry sons each year.³⁷ If all families had similar numbers of children, the gentry would have to form about 5 percent of a county's population to produce this many sons: this would be a relatively high estimates of gentry numbers, not the 1 to 2 percent that historians

³⁶ Stone and Stone, *Open Elite*, 234.

³⁷ This is based on ballpark estimates as follows. An average of Rickman's estimates of county populations for 1630 and 1670 give a figure of 426,000 for the combined population of these four counties. Wrigley et al suggest that 18.71% of the population were between 15 and 24 years in 1661. Hence, 0.935% $(=(18.71/24)/2)$ of the population, or approximately 4,000 people, were 17 year old males (the average age of apprenticeship) (E. A. Wrigley, *English population history from family reconstitution, 1580-1837* (Cambridge, 1997), 615). Stone's estimate that the elite formed 2% of the population would imply that there were around 80 gentry sons a year $(4,000 \times 0.02)$ entering education or training (Stone, *Crisis*, 31). Obviously, differential fertility, gender balance and age-specific-mortality would all affect these estimates.

normally suggest.³⁸ However, if the rich had a greater number of children than the poor, as Clark and Hamilton have argued, then the gentry need only make up about 3 percent of the population.³⁹ In short, most of those apprentices who claimed to be gentry may well have been telling the truth.

The 13% of gentry sons who entered one of the universities for a period present less of a surprise. The role of the universities in providing both an education and a source of social opportunities for gentlemen's children is well established.⁴⁰ A period at one of the universities, for example, might be seen as a source of general instruction or as an increasingly necessary step towards a career in the church or medicine.⁴¹ Similar proportions of gentry receiving university educations have been observed in other studies: between 17 and 26% of Norfolk gentry in the 1570s, 22 and 29% of the heads of Sussex gentry families in the 1580s, and a quarter of the heads of Yorkshire families in 1642 had attended a university.⁴² The behaviour and achievements of gentry sons at university were much as one would expect. Few bothered to complete a degree: only 35% took a BA and 25% took an MA, figures that match Lloyd's evidence on the proportion of Welsh gentlemen's sons attending Oxford who took degrees.⁴³ Even the choice of university appears to

³⁸ Heal and Holmes, *Gentry*, 11-13. King estimated 2.8% of the population were gentlemen or higher in 1688: Gregory King, *Two Tracts*, ed. G. E. Barnett (Baltimore, 1936).

³⁹ Gregory Clark and Gillian Hamilton, "Survival of the Richest: The Malthusian Mechanism in Pre-Industrial England", *Journal of Economic History* 66 (2006), 707-36. The reproductive rate of the two wealthiest groups suggest that the next generation of gentry would be 1.68 times larger than their parents (Table 9, p. 732).

⁴⁰ Heal and Holmes, *Gentry*, 261-70; Lawrence Stone, "The Size and Composition of the Oxford Student Body 1580-1909", in *The University in Society*, ed. Lawrence Stone (London, 1975), 24-28; J. K. McConica, "Scholars and Commoners in Renaissance Oxford", in *The University in Society*, ed. Lawrence Stone (London, 1975), 159-181.

⁴¹ Rosemary O'Day, *The English Clergy* (Leicester, 1979), 3-5; Rosemary O'Day, *The Professions in Early Modern England, 1450-1800* (Harlow, 2000), 191; Tom Webster, *Godly Clergy in Early Stuart England* (Cambridge, 1997), 15-35

⁴² Cliffe, *Yorkshire*, 73-4; Morgan, "Cambridge and "The Country"", 236, 238.

⁴³ Howell Lloyd, *The Gentry of south-west Wales, 1540-1640* (Cardiff, 1968), 194-5.

have been dictated by geographical proximity as much as anything else. Bedfordshire sons favoured nearby Cambridge; Surrey, Somerset and Westmoreland sons favoured Oxford.⁴⁴ That said, for a few sons, university offered a career in itself. Twenty-one sons became fellows of one of the Colleges. Edmund Staunton was president of Corpus Christi College, Oxford from 1648 to 1660, Humphrey Hody became the regius professor of Greek at Oxford, while Robert Abbot became regius professor of Divinity.

An education at one of the Inns of Court came a close third place to apprenticeships and university - slightly fewer than one in ten gentry sons spent time there. It is worth noting that law shows the least variance between the counties, although there is no obvious explanation for this. Legal studies at the Inns of Court often followed a period at Oxford or Cambridge: around a third of the gentry sons who entered university were later found at one of the inns of court. This was, in fact, the normal path into the law among gentlemen's sons: 55% of those who entered one of the inns of court had previously been at university (none in our sample moved in the opposite direction), a similar, even slightly lower figure, than other studies have found.⁴⁵ Strikingly, while the universities and the inns of court were closely linked, apprenticeship was distinct from both, and none the sons in our sample who became apprentices were also found at one of those institutions.

For the sons of gentlemen, the Inns of Court served a similar purpose to the universities in combining social, cultural and intellectual opportunities. An understanding of the law was recognised as a useful adornment for the early modern gentleman, assisting him in his private and public roles. While for many, the Inns were no doubt little more than a backdrop to widening a social network and acquiring a measure of

⁴⁴ Stone, "Size and composition", 35- 6; Cliffe, *Yorkshire*, 74.

⁴⁵ Cliffe, *Yorkshire*, 73-4; Barnes, *Somerset*; Jenkins, *Ruling Class*, 226

metropolitan polish, for some the legal training they obtained there became the foundation for a career in the law. Notably, even some eldest sons and heirs took this path. John Harrington, for example, became a major Somerset landowner following the death of his father, Sir John, in 1612, yet he continued to pursue a legal career. He was called to the bar in 1615 and became a bencher of Lincoln's Inn in 1633. In the same period, he served as a JP in Somerset from 1625 and was chairman of the county quarter sessions in 1626.⁴⁶

Careers in the church absorbed a much smaller proportion of gentry sons - although it must be remembered that this is based on a less comprehensive set of data covering only those who were identified as clergy in the university lists. The apparent lack of appeal of the church as a career for the sons of the gentry is consonant with some of the well known problems of the church in this period. Problems of recruitment reflected the scarcity of well endowed livings, despite attempts to expand the capacity of the universities to train future priests.⁴⁷ Nonetheless, the church was not wholly without prospects. Among the 2% of our sample who were known to have been ordained or held a vicarage, some achieved great prominence, including George Abbott, archbishop of Canterbury from 1611 to 1633.

The choices of gentry children were not stable over the seventeenth century. As can be seen in figure 2, there was a marked slump in the proportion entering university and the inns of court in the middle of the century that was followed by a sharp revival in the closing decades. Our figures suggest that Stone's estimates for sons of the elite entering Oxford need some revision. His estimates, which show a decline

⁴⁶ ODNB, s.v. "Harrington, John".

⁴⁷ O'Day, *English clergy*, 127-8; Claire Cross, "The Incomes of the Provincial Urban Clergy, 1520-1645", in *Princes and Paupers in the English Church, 1500-1800*, ed. Rosemary O'Day and Felicity Heal (Leicester, 1981), pp. 65-89; Stone and Stone, *Open Elite*, 229-30.

from a peak in the 1630s, understate both the severity of the mid-century decline and the recovery.⁴⁸ With a lag between birth and entry of around twenty years, it appears that the civil war and interregnum seriously weakened the appeal of the universities and the law. Such a decline is not hard to understand: among the most obvious are the direct effects of the wars on the cities and Colleges, the economic impact of the wars on family income and landholdings, and the effect of the interregnum on the prospects of careers in the clergy and courts. Interestingly, gentry sons' rate of entry into apprenticeships appears to have risen and fallen in counterpoint to the troubles of Oxbridge, suggesting that trade may have offered relative security from the turmoil of political and religious events, lower costs, and the possibility of rebuilding family fortunes. This shift in apprenticeship levels may be an artefact of the data, though: comparing rates of entry into apprenticeship over time is complicated by the varying quality of the surviving records, and as we see below the statistical significance of this element of the variation of sons' education over time disappears when we control for other influences.

For around a fifth of gentry sons we can work out the age at which they left home to enter service or study. There was little difference between the those entering university or apprenticeships. Sons entering university began at the youngest age: 16.8 years on average.⁴⁹ Apprentices were marginally older at 17.1 years. Those entering one of the inns of court were, on average, somewhat older again, at 19.8 years, as one would expect given that many had previously been at university. Surprisingly, however, when gentry sons went directly to the Inns, they did so at 20.4 years old, slightly later than those who had previously been to university, who were about 19.4 years old when they arrived. Between

⁴⁸ Stone, "Size and composition", 27, 37. Stone's samples neglect 1640-59 and include only one year between 1662 and 1710: "Social Composition", 93.

⁴⁹ Stone's figures are 15.8 in 1600, 16.4 in 1640 and 17.4 in 1660 for esquires and above: "Size and composition", 30

1550 and 1675, there was little change in the age at which youths entered university or one of the Inns of Court.⁵⁰ The age at which youths began apprenticeships did fall appreciably, however, from 17.9 years for those born between 1600 and 1625 to 16.5 years for those born between 1650 and 1675. There was, it seems, little rush to leave the family. Most gentry sons left home in their late teens, at an age little different to that common among youths going to university today.

To what extent was the education and training of gentry sons affected by their place in the birth order? Our data suggests that the effect was substantial. Table 4 breaks down the educational destinations of gentry sons according to their place in the birth order. As it shows, the eldest son got not only the majority of the land, but also the pick of the opportunities to acquire an education: overall, 18% of the eldest sons of gentry families spent some time at university, 16% spent a period at the inns of court, and 8% attended both. These figures are similar to those found for heads of families in Yorkshire and confirm Stone and Stone's finding that more elder than younger sons attended one of the universities or inns of court.⁵¹ Indeed, rates could exceed this among some sections of the gentry: by 1636, 55% of Somerset JPs had been to university.⁵²

While a number of historians have identified clear differences between the educational trajectory of the eldest son and heir and the remainder of a gentleman's children, there has been little work on how education and training change across the birth order more specifically. As table 4 and figure 3 make clear, the education that younger sons received was strongly shaped by the hierarchy established through the birth order. The probability that a son would spend a period at university or one of the

⁵⁰ Cf. Stone, "Size and composition", 30 who does find a rise.

⁵¹ Cliffe, *Yorkshire*, 74; Stone and Stone, *Open Elite*, 231-3. Families had favoured the eldest sons in legal training since the fifteenth century at least: Carpenter, *Locality*, 216.

⁵² Morgan, "Cambridge", 239.

inns of court fell with every step down the birth order until the third son. Below this, the probability of sons going up to university and studying law stabilised, and eventually increased for the youngest sons, suggesting perhaps that these younger sons were pursuing occupational training in the church or at law, rather than a general education.

We find clear evidence of this shift in purpose if we look at the longer career paths of those sons who entered university. The proportion of sons at university who actually took a degree increased with every step down the birth order. Barely a fifth of eldest sons bothered to graduate, while over two thirds of fifth or younger sons did; the proportions taking MA degrees rose also, from 2% of eldest sons to 8% of sixth sons. Although for the reasons discussed earlier our data on entry into the clergy are much weaker, the proportion of sons who we know entered the church rose in a similar manner.

Conversely, if we turn to apprenticeship we find a very different story. Although Grassby has suggested that ‘there was no obvious order of preference between younger sons’ within apprenticeship, our figures suggest birth order was important.⁵³ In a direct contrast to the declining probability of entering university or the law, the chance that a gentry son would enter an apprenticeship rose smoothly with their place in the birth order. Fewer than one in twenty first sons and one in ten second sons trained for a career in business. By the time we reach the benighted sixth sons, we find that almost one in four were becoming apprentices. We lack sufficient information about the occupation or potential of the positions these youths entered, but it seems likely that this also declined with birth order, and we might have some sympathy for Sir Josiah Child’s complaint about the ‘inconsiderable assistance’ given to the ‘youngest sons of

⁵³ Grassby, *Business community*, 159.

Gentlemen' who were apprenticed to merchants and then 'left to wrastle with the world in their youth'.⁵⁴

The gentry were far from an homogenous group, and this is reflected in the opportunities that they gave to their sons. If we restrict our sample to those identifiable at the upper end of county society, we do find some differences. Table 5 describes the education of sons of Surrey families where the father was identified as JP in the 1660s, and Bedfordshire families where the family was noted in a contemporary list of the county gentry. The sample size is much smaller (only 188 sons in total), but as the table shows, for sons in families at the upper end of gentry society, spending time at a university or the inns of court was markedly more common. Almost four in ten eldest sons attended either Oxford or Cambridge – almost twice the proportion of eldest sons in the full visitation sample for these two counties, and much closer to the 55% of Somerset JPs found by Gleason. Apprenticeship figured somewhat less prominently, even for younger sons. That said, 14% of second or younger sons did still enter service in London (compared to 16% and 25% of sons in the full visitation samples for these counties) suggesting that the Stones and Grassby's presumption that only minor gentry became apprentices is mistaken.

Because our sample combines different periods and counties it is important to establish what, if any, of the birth-order effect we observe is the result of the composition of our data. To do so, we estimated three logit regressions for the probability that a son would enter each of the destinations that we study. The results of the regressions are presented in table 6, with the coefficients converted into marginal effects that describe the effect of each variable on the probability that a son would go to university, an inn or enter an apprenticeship. The explanatory variables

⁵⁴ Josiah Child, *Brief Observations Concerning Trade, and Interest of Money* (London, 1668), 3.

that we used in the regression were dummy variables for the visitation sample and each individuals' period of birth divided by quarter century, their position in the birth order, and the total number of sons in the family. The reference category is eldest sons recorded in the Surrey 1623 visitation who were born between 1600 and 1624.

Our findings support the importance of a son's birth position on the probability that he would enter each destination. In all three regressions, the son's position in the birth order had a large and statistically significant effect after controlling for differences between samples and time periods. As can be seen, third sons were 13 percentage points more likely to enter an apprenticeship than first sons, rising to 16 percentage points for fourth sons. Conversely, the probability that a son would matriculate at university fell by six percentage points for second sons and nine percentage points for third sons compared to first sons; a similar pattern appears for sons entering the inns of court.

The regression results also show that the changes discussed earlier in the proportion of sons entering university and the inns of court over the last quarter of the sixteenth and first half of the seventeenth century were statistically significant, even after controlling for the different samples. The size of the difference between periods was sometimes smaller than might be expected from the descriptive statistics, however, and the variation in the proportion entering apprenticeships is only statistically significant in 1575-99: we cannot reject the hypothesis that there was no change in the proportion of sons becoming apprentices over the seventeenth century. The results also bring out the differences between the different visitations. As can be seen, some of these were statistically significant, but none were particularly large or surprising. That the largest effect was that gentry sons from Somerset were eight percent less likely to become apprentices in London than those from Surrey in many ways underlines the substantial similarity across regions; Somerset

after all had its own training centre in Bristol, while Surrey included part of the metropolitan area. It seems reasonable to conclude that the experiences of gentry sons from different counties did not vary substantially. Similarly, the number of children in the family did not change the underlying picture of how birth order affected the prospects of children. If anything, having more siblings increased the probability that a son would enter university or one of the inns of court, but the effect was small.

3. Conclusion

The choices that families make about educating and training their children reveal much about their expectations for the future, their resources and their perceptions of the abilities, interests and opportunities of their offspring. For their children, the consequences of the education they receive are long-lasting. The investments that families make in educating and training their children are one of the key mechanisms, aside from direct inheritance, through which intergenerational transfers are made. The content and structure of the education that is given to the next generation is also a central device through which social groups shape and reproduce themselves. As we have seen, among the early modern English gentry, education and training beyond the level of the grammar school and family centred on three main institutions: the universities of Oxford and Cambridge, the inns of court and London apprenticeship. Over a third of gentry children in our sample – which perhaps equates to more than a half in reality – spent some time in at least one of these three institutions.

While there are some differences between the practices of gentry from different counties, and some fluctuations over time, the education of gentry sons followed a relatively stable form between the later sixteenth

and the later seventeenth centuries. This widely-shared and persistent approach to educational choices among the gentry supports the idea that they shared at least parts of a national self-identity in this period. This gentry identity would, of course, have in turn been fostered by the experiences of education in the same limited set of institutions, and, for many, exposure to metropolitan life that this involved. It also raises some doubts over arguments that shifts in inheritance practices, particularly the increasing popularity of strict settlements, produced a profound shift in the prospects of younger sons – although this could, of course, have become manifest later in their lives.⁵⁵

Two findings stand out from our evidence. First, the strong appeal of an apprenticeship in London as a way to give gentry sons a start in life. Almost as many gentry sons became apprentices as studied at Oxford or Cambridge. Apprenticeship was somewhat less common among sons from families in the upper reaches of the gentry, but it nevertheless remained an option taken up by more than one in seven sons. Second, the education and training of gentry sons was strongly influenced by their place in the birth order. It was not just that eldest sons were given more opportunities than their younger siblings. Every step down the birth order reduced the likelihood of a university education and increased the odds of being consigned to an apprenticeship. For younger sons, education of all kinds was perceptibly more of a matter of training for a future career than it was for their eldest brothers, and expectations varied between younger children. The youngest of younger sons was treated quite differently to the second or third son.⁵⁶ While we can say only a little about what

⁵⁵ Thirsk, "Younger sons"; H. J. Habakkuk, *Marriage, Debt, and the Estates System, English Landownership 1650-1950* (Oxford, 1994), 4; Cooper, "Inheritance", 227-39; Lawrence Stone and Jean Stone, *An Open Elite? England 1540-1880* (Oxford, 1984), 74; Randolph Trumbach, *The Rise of the Egalitarian Family* (New York, 1978), 71. See also; Staves, "Resentment".

⁵⁶ Cooper, "Inheritance", 216-7; Staves, "Resentment", 195; E. Thompson points to similar hierarchies among yeomen: "The Grid of Inheritance: A Comment" in *Family*

happened to them after they began their education, the rising proportions of younger sons who crowned their university education with degrees or entered the church suggests that Thirsk's conclusion that the 'habit of working for a living was not ingrained in younger sons of this class' ignores the behaviour of a significant share of gentry sons who recognised the importance of making their own way in the world.

The influence of birth order on education did not preclude choice, of course. Some eldest sons became apprentices, just as some fifth sons went to university. Contemporary letters and diaries show that some families did put considerable effort into deciding exactly which path a child should take, and within university, law or apprenticeship there was much possibility for families to shape the educational experience to their sons' interests and abilities. But the probability that the son of a gentleman would pursue one of the three educational options we have discussed varied in a systematic manner with their position in the family: the broad parameters of how education and position should be matched were relatively clearly and consistently shared across gentry society.

In addition to reflecting the smaller share of the patrimony available to younger sons, these norms were, most likely, a response to the relative probabilities of inheritance and the necessary preparation of children for the position of heir. With levels of mortality high, there was a reasonable chance that a second son might inherit, and a family would be disadvantaged if he was not prepared to replace his elder brother. Further down the birth order, the probability of inheritance declined and attention shifted to alternative means of earning a living. Thus, if our findings on apprenticeship suggest that early modern gentry were somewhat warmer towards business than has often been assumed, the implication of the importance of birth order is more traditional: for gentry sons, social norms

and Inheritance, ed. Jack Goody, Joan Thirsk and E. Thompson (Cambridge, 1976), 343-5.

about the birth order and inheritance were of fundamental importance. The opportunities they would receive were the product of the accident of the order of their birth as much as of their abilities.

Table 1: The Characteristics of the Gentry Sample

Visitation	N sons	N families	Year born						% with information on education
			<1575	1575-99	1600-24	1625-49	1650-74	>1675	
1623 Surrey	592	175	34	118	246	18	2	0	27
1634 Bedfordshire	443	135	3	45	192	129	4	0	35
1662 Surrey	185	62	0	0	17	55	102	0	48
1672 Somerset	846	348	1	47	182	246	221	20	25
1666 Westmorland	165	41	0	12	41	49	34	0	33
Total (N)	2231	761	38	222	678	497	363	20	29

Note: 1,817 (82%) of the sample can be allocated to a quarter century of birth based on information about birth, death, entry to university, inn or apprenticeship for them or a sibling.

Table 2: Education of Gentry sons, by Visitation

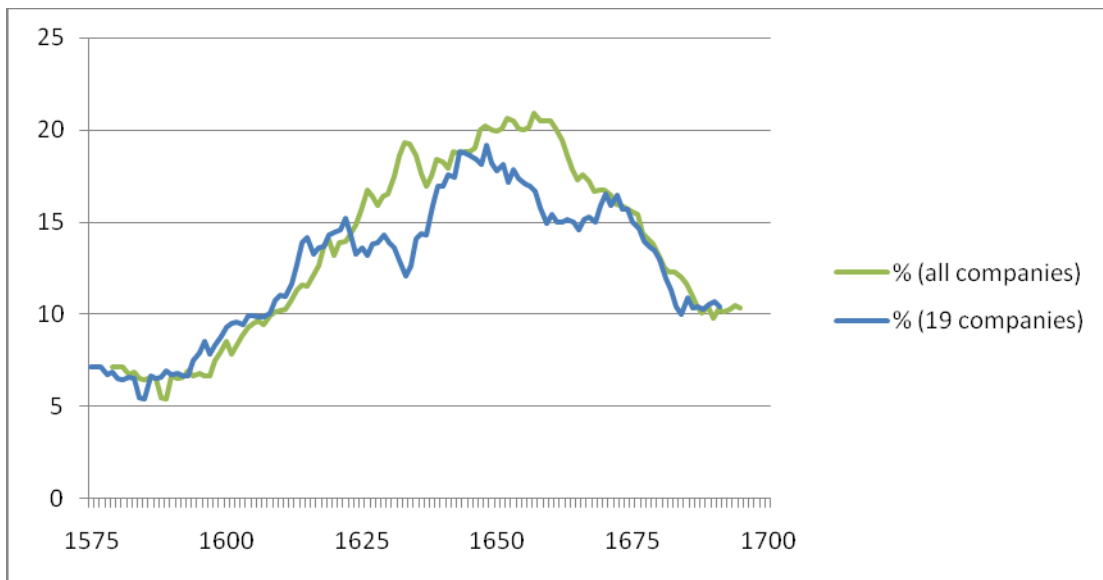
	University (%)	Inn of Court ¹ (%)	Apprenticeship (%)	Church ²
1623 Surrey	11	9 (4)	12	2
1634 Bedfordshire	16	8 (3)	16	2
1662 Surrey	19	11 (4)	25	1
1672 Somerset	12	9 (5)	8	2
1666 Westmorland	17	11(4)	12	5
ALL	14	9 (4)	12	2

Note: Percentages are as a share of all sons in the gentry sample described in table 1.

¹ The figures in parentheses in the Inn of Court column are apprentices who went *only* to the Inns and are not known to have attended university as well.

² The proportion of sons entering the church is a subset of those entering University and derives from the same sources.

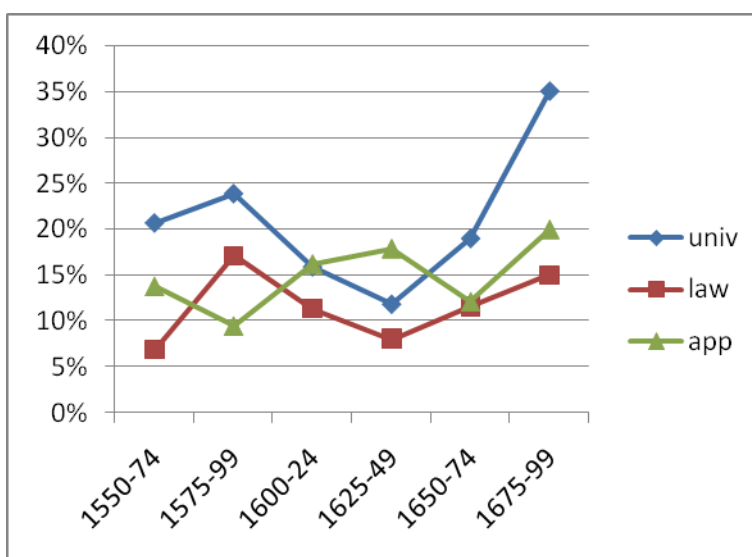
Figure 1: Percentage of Apprentices from Gentry Backgrounds



Note: Sample of apprentices from Bedfordshire, Surrey, Westmorland and Somerset in all companies for which records survive. Gentlemen are fathers described as gentleman, esquire, and knight by their sons. The figure gives an 11-year rolling average of the percentage of gentlemen’s sons as a share of all those apprentices who give information on their father’s status or occupation.

The composition changes as the number of companies in the dataset grows over the period as record survival improves (rising from 8 companies in the 1570s to 62 in the 1690s). We therefore also report the figure for a sample of 19 companies for which data survive continuously from 1600 to 1700.

Figure 2: Distribution of Gentry sons Between Destinations by Year of Birth



Note: the proportion of sons entering each destination is higher than for the full sample because some of our data on the period of birth are derived from the entry date.

Table 4: Effect of Birth Order on Education and Training

Position in birth order	N	University (%)	Inns of Court (%)	University & Inns of Court (%)	Apprentice (%)	Church (%)	Taking BA (%)
1	756	18	16	8	4	1	23
2	604	13	7	3	10	2	41
3	400	11	6	3	15	3	47
4	225	11	4	2	19	4	56
5	109	11	6	2	17	4	67
6	88	15	3	3	24	5	69

Figure 3: Effect of Birth Order on Education and Training

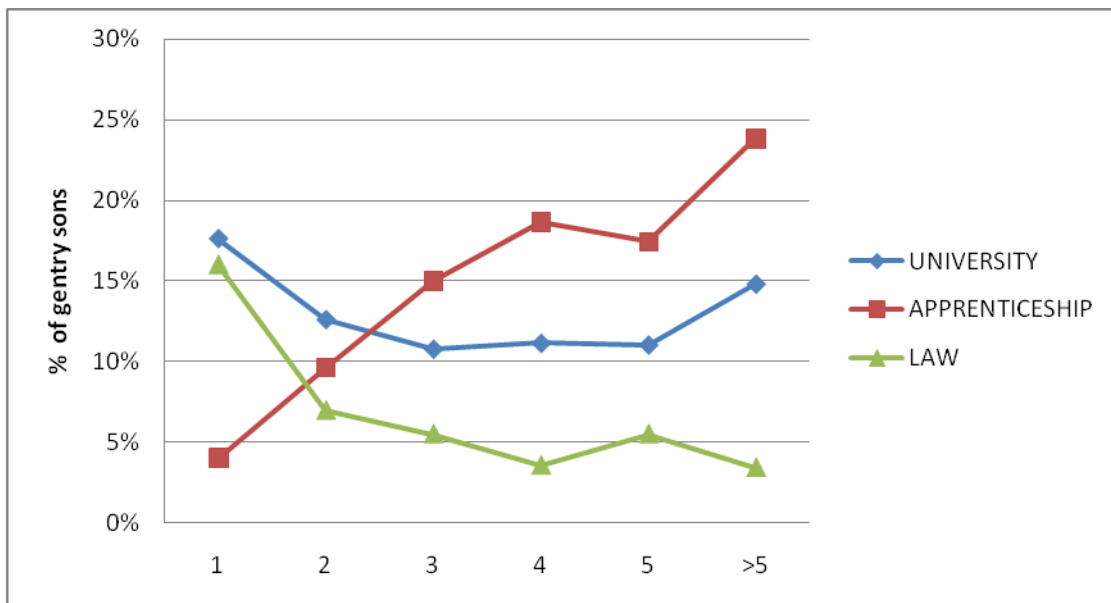


Table 5: Effect of Birth Order Among 'Greater' Gentry in Surrey and Bedfordshire

Position in birth order	N	University (%)	Inns of Court (%)	University & Inns of Court (%)	Church (%)	Apprentice (%)
1	72	39	28	22	0	3
2	65	23	12	6	0	14
>2	51	18	10	8	6	14

Table 6: The Probability of Sons Entering University, an Inn of Court or an Apprenticeship

	University	Inns of Court	Apprenticeship
1634 Bedfordshire	0.05 (4.62)**	-0.02 (0.67)	-0.02 (1.45)
1662 Surrey	0.05 (2.26)	0.01 (0.17)	0.05 (3.99)**
1672 Somerset	-0.01 (0.32)	-0.01 (0.59)	-0.08 (13.44)***
1666 Westmorland	0.05 (2.72)*	0.02 (0.68)	-0.03 (1.42)
1525-1549	-2.27 (0)	-1.54 (0)	-1.79 (0)
1550-1574	0.05 (0.64)	-0.05 (0.8)	-0.03 (0.35)
1575-1599	0.07 (8.43)***	0.04 (5.79)**	-0.08 (9.52)***
1625-1649	-0.04 (3.5)*	-0.03 (3.55)*	0.02 (1.47)
1650-1674	0.03 (1.39)	-0.01 (0.1)	-0.02 (0.84)
1675-1700	0.20 (10.24)***	0.01 (0.05)	-0.03 (0.07)
Son 2	-0.06 (10.56)***	-0.09 (30.72)***	0.09 (15.88)***
Son 3	-0.09 (15.95)***	-0.11 (31.95)***	0.13 (35.41)***
Son 4+	-0.11 (20.6)***	-0.17 (47.65)***	0.16 (46.99)***
Family Size	0.01 (3.42)*	0.01 (2.94)*	0.00 (0.01)
N	1,784	1,784	1,784
Pseudo- R ²	.064	.111	.137

The significance level is indicated by * at 90%, ** at 95% and *** at 99%. Logit regression results reporting marginal effects with z statistics in parentheses.

LONDON SCHOOL OF ECONOMICS
ECONOMIC HISTORY DEPARTMENT WORKING PAPERS
(from 2006 onwards) For a full list of titles visit our webpage at
<http://www.lse.ac.uk/>

2006

- WP93 Harbingers of Dissolution? Grain Prices, Borders and Nationalism in the Hapsburg Economy before the First World War
Max-Stephan Schulze and Nikolaus Wolf
- WP94 Rodney Hilton, Marxism and the Transition from Feudalism to Capitalism
S. R. Epstein
Forthcoming in C. Dyer, P. Cross, C. Wickham (eds.)
***Rodney Hilton's Middle Ages, 400-1600* Cambridge UP 2007**
- WP95 Mercantilist Institutions for the Pursuit of Power with Profit. The Management of Britain's National Debt, 1756-1815
Patrick Karl O'Brien
- WP96 Gresham on Horseback: The Monetary Roots of Spanish American Political Fragmentation in the Nineteenth Century
Maria Alejandra Irigoin

2007

- WP97 An Historical Analysis of the Expansion of Compulsory Schooling in Europe after the Second World War
Martina Viarengo
- WP98 Universal Banking Failure? An Analysis of the Contrasting Responses of the Amsterdamsche Bank and the Rotterdamsche Bankvereening to the Dutch Financial Crisis of the 1920s
Christopher Louis Colvin
- WP99 The Triumph and Denouement of the British Fiscal State: Taxation for the Wars against Revolutionary and Napoleonic France, 1793-1815.
Patrick Karl O'Brien

- WP100 Origins of Catch-up Failure: Comparative Productivity Growth in the Hapsburg Empire, 1870-1910
Max-Stephan Schulze
- WP101 Was Dick Whittington Taller Than Those He Left Behind? Anthropometric Measures, Migration and the Quality of life in Early Nineteenth Century London
Jane Humphries and Tim Leunig
- WP102 The Evolution of Entertainment Consumption and the Emergence of Cinema, 1890-1940
Gerben Bakker
- WP103 Is Social Capital Persistent? Comparative Measurement in the Nineteenth and Twentieth Centuries
Marta Felis Rota
- WP104 Structural Change and the Growth Contribution of Services: How Motion Pictures Industrialized US Spectator Entertainment
Gerben Bakker
- WP105 The Jesuits as Knowledge Brokers Between Europe and China (1582-1773): Shaping European Views of the Middle Kingdom
Ashley E. Millar
- WP106 Regional Income Dispersion and Market Potential in the Late Nineteenth Century Habsburg Empire
Max-Stephan Schulze

2008

- WP107 'The Big Problem of the Petty Coins', and how it could be solved in the late Middle Ages
Oliver Volckart
- WP108 The Anglo-German Industrial Productivity Puzzle, 1895-1935: A Restatement and a Possible Resolution
Albrecht Ritschl
- WP109 The History, Nature and Economic Significance of an Exceptional Fiscal State for the Growth of the British Economy, 1453-1815
Patrick O'Brien

- WP110 The Economic History of Sovereignty: Communal Responsibility, the Extended Family, and the Firm
Lars Boerner and Albrecht Ritschl
- WP111 A Stakeholder Empire: The Political Economy of Spanish Imperial Rule in America
Regina Grafe and Alejandra Irigoin
- WP112 The U.S. Business Cycle, 1867-1995: Dynamic Factor Analysis vs. Reconstructed National Accounts
Albrecht Ritschl, Samad Sarferaz and Martin Uebele
- WP113 Understanding West German Economic Growth in the 1950s
Barry Eichengreen and Albrecht Ritschl

2009

- WP114 War and Wealth: Economic Opportunity Before and After the Civil War, 1850-1870
Taylor Jaworski
- WP115 Business Cycles and Economic Policy, 1914-1945: A Survey
Albrecht Ritschl and Tobias Straumann
- WP116 The Impact of School Provision on Pupil Attendance: Evidence From the Early 20th Century
Mary MacKinnon and Chris Minns
- WP117 Why Easter Island Collapsed: An Answer for an Enduring Question
Barzin Pakandam
- WP118 Rules and Reality: Quantifying the Practice of Apprenticeship in Early Modern Europe
Chris Minns and Patrick Wallis
- WP119 Time and Productivity Growth in Services: How Motion Pictures Industrialized Entertainment
Gerben Bakker
- WP120 The Pattern of Trade in Seventeenth-Century Mughal India: Towards An Economic Explanation
Jagjeet Lally

- WP121 Bairoch Revisited. Tariff Structure and Growth in the Late 19th Century
Antonio Tena-Junguito
- WP122 Evolution of Living Standards and Human Capital in China in 18-20th Centuries: Evidences from Real Wage and Anthropometrics
Joerg Baten, Debin Ma, Stephen Morgan and Qing Wang
- WP123 Wages, Prices, and Living Standards in China, 1738-1925: in Comparison with Europe, Japan, and India
Robert C. Allen, Jean-Pascal Bassino, Debin Ma, Christine Moll-Murata, Jan Luiten van Zanden
- WP124 Law and Economic Change in Traditional China: A Comparative Perspective
Debin Ma
- WP125 Leaving Home and Entering Service: The Age of Apprenticeship in Early Modern London
Patrick Wallis, Cliff Webb and Chris Minns
- WP126 After the Great Debasement, 1544-51: Did Gresham's Law Apply?
Ling-Fan Li
- WP127 Did Globalization Aid Industrial Development in Colonial India? A Study of Knowledge Transfer in the Iron Industry
Tirthankar Roy
- WP128 The Education and Training of Gentry Sons in Early-Modern England
Patrick Wallis and Cliff Webb