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Abstract:

How was trust created and reinforced between the inhabitants of medieval and early modern cities? And how did the social foundations of trusting relationships change over time? Current research highlights the role of kinship, neighbourhood and associations, particularly guilds, in creating ‘relationships of trust’ and social capital in the face of high levels of migration, mortality and economic volatility, but tells us little about their relative importance or how they developed. We uncover a profound shift in the contribution of family and guilds to trust networks among the middling and elite of one of Europe’s major cities, London, over three centuries, from the 1330s to the 1680s. We examine the networks of sureties created to secure the inheritances of children whose fathers died while they were minors, surviving in the records of London’s Orphans Court. Our analysis of almost fifteen thousand networks evaluates the presence of trusting relationships connected with guild membership, family and place over several centuries. We show a profound increase in the role of kinship – a re-embedding of trust within the family - and a decline of the importance of shared guild membership in connecting Londoner’s who secured orphans’ inheritances together. We suggest these developments are best explained as a result of the impact of the Reformation on the form and intensity of sociability fostered by guilds and the enormous growth of the metropolis.

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In the winter of 1648-9 James Walmesley, citizen and Leatherseller, died in London.² Almost twenty years later, in May 1668, Charles, the youngest of his sons, finally acknowledged receipt of his share of the £220 that he inherited. For two decades, as Charles and his brothers Edward and Ferdinand grew from infancy to adulthood, their inheritance had been held by a group of four people who had committed to preserving it for them. That group included their two elder brothers who had reached adulthood: James, their father's administrator, had become a freeman of the Leathersellers' the year before, and lived on Fleet Street then the west edge of London,³ and John, who finished his apprenticeship to a Stationer in the month his father died, and then set up in Ludgate Street.⁴ They were joined by Edward Gillingham, another Leatherseller who lived near James junior in Fleet Street: Gillingham had been apprenticed to James, senior, in the 1630s, when his sons were young.⁵ The fourth was William Benson, another Stationer living in Westminster. In 1654, John Walmesley and Benson would be replaced by Robert Foster, a Merchant Taylor, living near Temple, and John Allen, gentleman, of St Clements, Middlesex, both places close to Fleet Street.⁶ Each swore to accept liability for the full amount of the orphans' inheritance if their fellow sureties failed.

The mutual risk accepted by the two Walmesleys, Gillingham, and Benson indicates they trusted each other. But why? How was trust created and reinforced

² We are grateful to generous advice, guidance and feedback from Ian Archer, Oscar Gelderblom, Spike Gibbs, Natasha Glaisyer, Mark Jenner, Josje Schnitzeler, and Koji Yamamoto, and audiences at the Economic History Society Annual Conference, the European Social Science History Conference, University of Antwerp, Tokyo University, VUB, Londoners and London (York). Our initial work benefited greatly from the help of the Guildhall Library Manuscript Section.

³ Freed by patrimony, 17 Jan 1648: Leathersellers' Company, London, MEM/5/1, p .34.

⁴ Bound 10 Jan 1642, to William Rothwell, stationer, and freed 24 Mar 1649: London Booktrade Database, s.v. All dates are new style, years starting January.

⁵ Gillingham was freed by service to James Walmesley, 21 Jan 1638: Leathersellers' Company, London, MEM/5/1, p 19

⁶ Walmesley's case is reconstructed from London Metropolitan Archive (hereafter LMA) Rep 59 COL/CA/1/1/63 (8 March 1648, 12 June 1649); Rep 60 COL/CA/1/1/64 (31 Jan 1649); Rep 63 COL/CA/1/1/67 (24 Oct 1654); Rep 66 COL/CA/1/1/70 (27 Jul 1658); Rep 73 COL/CA/1/1/77 (5 May 1668). Walmesley's will is The National Archives (hereafter TNA), PROB 11/207, ff. 139-140 (proved 2 Jan 1648). Ferdinand was apprenticed to Thomas Gould, Stationer, on 22 Aug 1648, free 12 Oct 1657. Charles was apprenticed to Joseph Drake, Merchant Taylor of Fleet Street, for 8 years (30 July 1651): Michael Scott, ed., *The Merchant Taylors' Company of London: Apprentices, 1583-1800*. 3 vols, (British Record Soc., *Apprenticeship ser.*, ii, London 2019), s.v..

between the inhabitants of medieval and early modern cities? Trust was both essential and problematic to urban life. Premodern economies relied on extensive webs of credit, organized most production using fluid relationships of temporary hiring and subcontracting, and lacked many of the structures of contract enforcement that exist today to lower risks in economic life.⁷

Family offered one locus for trust, neighbours another. We see evidence of both in the presence of the two Walmesley brothers, the proximity of two sureties living on the same street, and the later recruitment of Foster and Allen from the neighbourhood. Yet the harsh reality of urban life with its high levels of migration, volatile mortality and unstable patterns of residence undermined the extent and depth of kinship and locality, and made the formation of ‘community’, however contested a concept that might be, a persistent challenge.⁸ One response by townspeople was the creation of forms of associational and civic organization that helped build other relationships, including guilds, such as the Stationers and Leathersellers’ Companies that linked some of the Walmesley sureties. Participation in this ‘rich network of associational life’ left a ‘historical repertoire of forms of collaboration’, according to Robert Putnam, that allowed individuals – past and present – to ‘be trusting’.⁹

Putnam’s concern was principally with how societies create a generalized trust that sustains wider economic, political and social interactions, but his analysis is echoed

⁷ Craig Muldrew, *The Economy of Obligation: The Culture of Credit and Social Relations in Early Modern England* (Basingstoke, 1998); M. Sonenscher, *Work and Wages: Natural Law, Politics and the Eighteenth-Century French Trades* (Cambridge, 1991); G. Rosser, ‘Crafts, Guilds and the Negotiation of Work in the Medieval Town’, *Past and Present*, 154 (1997); Giorgio Riello, ‘Boundless Competition: Subcontracting and the London Economy in the Late Nineteenth Century’, *Enterprise and Society*, 13 (2012); Justyna Wubs-Mrozewicz, ‘The Concept of Language of Trust and Trustworthiness: (Why) History Matters’, *Journal of trust research*, 10 (2020), 94-102. Trust played a distinctive role in the pre-reformation social church: Ian Forrest, *Trustworth Men: How Inequality and Faith Made the Medieval Church* (Princeton, 2020).

⁸ The challenge urban settings presented to kinship is summarized in: Katherine A. Lynch, *Individuals, Families, and Communities in Europe, 1200-1800: The Urban Foundations of Western Society* (Cambridge, 2003), 25-44. R. O. Bucholz, and Joseph P. Ward, *London: A Social and Cultural History, 1550-1750* (Cambridge, 2012), 71-3; Alexandra Shepard, and P. J. Withington, *Communities in Early Modern England: Networks, Place, Rhetoric* (Manchester, 2000); Christian D. Liddy, *Contesting the City: The Politics of Citizenship in English Towns, 1250-1530* (Oxford, 2017).

⁹ Robert Leonardi, and Raffaella Y. Nanetti, *Making Democracy Work: Civic Traditions in Modern Italy* (Princeton, N.J., 1993), 126, 174, 177.

in studies of trade and commerce that have emphasized how associations bolstered the roles of kinship and ethnicity in sustaining commercial relationships and credit between and within urban economies.¹⁰ Perhaps the fullest recent articulation of the importance of association has been made by Gervase Rosser, who argues that in ‘the exceptionally unstable world of late-medieval Europe, in which the support networks of family and neighbours were repeatedly strained to breaking-point, the survival of the individual depended on the creation of relationships of trust. Guilds were founded in large numbers and diverse forms for this very purpose’.¹¹ Guild membership, Rosser suggests, offered ‘a qualification of trustworthiness’, gave an assurance of ‘credit and status’, and fostered ‘friendship between members’.¹²

Several of the main ingredients that went into forming ‘trustworthy’ ties in urban societies – kinship, place and association – are generally accepted, but their respective contribution over time is not. Modernization theories from Tönnies and Weber onwards envisage a trajectory from a social structure embedded in kinship and clan towards atomistic individualism. The general validity of these models and their applicability to any specific period in European history are contested.¹³ They

¹⁰ Specific studies on the relative importance of kinship etc in contract are limited, although see: Fabien Eloire, Claire Lemerrier, and Veronica Aoki Santarosa, ‘Beyond the Personal–Anonymous Divide: Agency Relations in Powers of Attorney in France in the Eighteenth and Nineteenth Centuries’, *The Economic History Review*, 72 (2019); Philip T. Hoffman, Gilles Postel-Vinay, and Jean-Laurent Rosenthal, *Priceless Markets: The Political Economy of Credit in Paris, 1660-1870* (Chicago, 2000); Tim Leunig, Chris Minns, and Patrick Wallis, ‘Networks in the Premodern Economy: The Market for London Apprenticeships, 1600-1749’, *Journal of Economic History*, 71 (2011), 421-34. See also: Muldrew, *Obligation*; Claire Dolan, ‘The Artisans of Aix-En-Provence in the Sixteenth Century: A Micro-Analysis of Social Relationships’, in Philip Benedict (ed.) *Cities and Social Change in Early Modern France* (London, 1989). Studies critical of the social and economic effects of guild’s social capital necessarily highlight the connections they fostered: Sheilagh Ogilvie, ‘How Does Social Capital Affect Women? Guilds and Communities in Early Modern Germany’, *American Historical Review*, 109 (2004); Sheilagh C. Ogilvie, *The European Guilds: An Economic Analysis* (Princeton, 2019), 18-24. Trust networks around executorship are discussed in: Richard M. Asquith, ‘Piety and Trust: Testators and Executors in Pre-Reformation London’ (Royal Holloway, Univ. of London Ph.D. thesis, 2022).

¹¹ Rosser, *Solidarity*, 149.

¹² Rosser, *Solidarity*, 35, 87. Note the distinction between Rosser’s analysis and those focusing on guilds or equivalents in dispute resolution and enforcement.

¹³ F. Tönnies, *Community and civil society* (Cambridge, 2001); Max Weber, *Economy and society: an outline of interpretive sociology* (Berkeley, 1978), 375-80. Reflections include: Richard M. Smith, ‘“Modernization” and the Corporate Medieval Village Community in England: Some Sceptical Reflections’, in Alan. R. H. Baker and Derek Gregory (ed.) *Explorations in Historical Geography: Interpretative Essays* (Cambridge, 1984); Charles Tilly, *Trust and Rule* (Cambridge, 2005), 13-17; Clare Haru Crowston, ‘Credit and the Metanarrative of Modernity’, *French historical studies*, 34 (2011); Carol Symes, ‘When We Talk About Modernity’, *The American Historical Review*, 116 (2011).

are also ambiguous in their implications for premodern urban societies, long identified as sites where kinship might have first weakened. However, attempts to examine this subject empirically have been limited, with most analyses of urban society forced by the constraints of source survival to concentrate on specific moments.¹⁴ And while sweeping modernization theories might attract our scepticism, we also have little reason to expect that the fabric of trust was unchanged between the thirteenth and seventeenth centuries, in the face of urban growth, commercial expansion, religious reformation and state formation.

In this paper we uncover a profound rebalancing in the ‘trust networks’ that existed between the middling and elite of one of Europe’s major cities, London, over more than three centuries, from the 1330s to the 1680s.¹⁵ Our analysis examines the social, institutional and spatial contexts that generated and sustained social and economic ties, using long-run data on the agreements created by citizens to secure the inheritances of children whose fathers died while they were minors, which survive in the records of London’s Orphans Court.¹⁶ We explore almost fifteen thousand networks, allowing us to evaluate the presence of relationships rooted in guild membership, family and place over several centuries. Our results show a profound waxing of kinship – a re-embedding of trust within the family - and a waning of the importance of guilds within Londoner’s most trusted connections. We relate these results to the forms and intensity of sociability fostered by guilds as they changed over this period in response to the Reformation and the growth of the metropolis.

¹⁴ J. P. Boulton, *Neighbourhood and Society: A London Suburb in the Seventeenth Century* (Cambridge, 1987); Richard Goddard, ‘Trust: Business Networks and the Borough Court’, in Richard Goddard and Teresa Phipps (ed.) *Town Courts and Urban Society in Late Medieval England, 1250–1500* (2019). More generally, Lynch, *Community*; Sandra Cavallo, *Artisans of the Body in Early Modern Italy: Identities, Families and Masculinities* (Manchester, 2007). An important exception on ritual ties (godparenthood, marriage witnessing): Guido Alfani, and Vincent Gourdon, ‘Entrepreneurs, Formalization of Social Ties, and Trustbuilding in Europe (Fourteenth to Twentieth Centuries)’, *The Economic History Review*, 65 (2012)

¹⁵ Tilly, *Trust*, 4-6, 12-14. Note that some aspects of Tilly’s extended definition on p. 44 (eg: boundary marking) cannot be shown to hold here, or in some of the examples he uses himself.

¹⁶ We use the term *The Court of Orphans* to cover the administrative and legal proceedings that resulted from the City’s arrangements for orphans. This encompasses the activities of a range of City institutions, in particular the Court of Aldermen and the Lord Mayor’s Court.

Trust and the Orphans' Court of London

The main sources we use here emerge from the activities of the Orphans' Court of London to protect the inheritances of the children of citizens. Since at least the late thirteenth century, the inheritance customs of the city granted the custodial and financial care for orphans to the Lord Mayor and Aldermen. A case in King's Bench from 1310 records an affirmation from the Lord Mayor and Aldermen that the estates of infants were seized in their hands upon sufficient security until the children came of full age, and that this had been customary practice from time immemorial: certainly, references to the custodial arrangements of orphans appear in the city's records from 1275/6.¹⁷ Comparable arrangements to protect the inheritances of the orphans of citizens emerged in other cities in England, including Bristol and Exeter, and continental Europe.¹⁸

In London, an 'orphan' was understood to include sons and unmarried daughters under the age of 21, who had not already received their portion of the estate in their father's lifetime. The estate's administrators were required to secure at least a third of the estate for the orphans, plus any other legacies, to give to them at age 21 or, for daughters, when they married. Another third went to the citizen's widow if she survived. The remainder could be distributed by the citizen's will.¹⁹

As the city swelled in population, the number of orphans inevitably grew. A further impulse was given as the Court's procedures were formalized and codified from the

¹⁷ TNA, KB27/200 rot. LXXIII, accessible at http://aalt.law.uh.edu/E2/KB27no200/aKB27no200fronts/IMG_0154.htm For earlier references see the Letter Books: LMA, COL/AD/01. Mary Bateson, *Borough Customs* (Selden Society, London 1906), vol 2, 147-49; Caroline M. Barron, *London in the Later Middle Ages: Government and People, 1200-1500* (Oxford, 2004), 268-73.

¹⁸ Charles Carlton, *The Orphans' Court* (Leicester, 1974); Barbara A. Hanawalt, *Growing up in Medieval London: The Experience of Childhood in History* (Oxford, 1993). Jessica Ayres current PhD project at York explores widows in the Court. The inventories are used by Peter Earle, *The Making of the English Middle Class: Business, Society and Family Life in London, 1660-1730* (London, 1989). Carlton also discusses provincial courts (p. 32). For European courts, see David Nicholas, *The Domestic Life of a Medieval City: Women, Children, and the Family in Fourteenth-Century Ghent* (Lincoln, 1985); J.W. Schnitzeler, 'In Loco Parentis: Holland's orphan chambers in a European context', *The History of the Family*, 27:2 (2022); idem., 'Financial care for the vulnerable: Rise and decline of Holland orphan chambers' (Utrecht University, PhD thesis, 2022).

¹⁹ The widow's third portion appears to have been formalised 26 Oct 1510, LMA, Letter Book M COL/AD/01/012 f. 179.

late fifteenth century onwards.²⁰ The result was a dramatic expansion in the Court's business: the affairs of more than a hundred estates with orphans were brought each year in the 1670s, compared to less than thirty per year one hundred and fifty years before.

By the mid-sixteenth century, the process began with the parish clerk or ward constable notifying city officials that a freeman in their parish or ward had died leaving orphans.²¹ The Common Crier, one of the city officers, would go to the executor or administrator's residence and warn them to appear before the Court of Aldermen at Guildhall and be bound to provide an inventory. The administrator would later return with the inventory and swear to its truth; the Common Serjeant was responsible for reviewing the inventory and calculating the orphanage and legacy portions, and his clerk kept a summary of these details. The resulting 'Common Serjeant's Books', which partially survive, are one of the most accessible and widely studied parts of the archive.²² If the estate was solvent and orphanage or legacy money remained for the children, the administrators were bound to secure it.²³

Administrators had two options for managing orphans' inheritances. They could deposit money with the Chamber (the treasury) of the City of London, where it earned interest at 5 per cent if below £500.²⁴ By the mid-seventeenth century this was the preferred method, a development that ended in disaster in 1682 when the city's use of these funds left it bankrupt and owing half a million pounds to its

²⁰ The process of codifying rules and enforcement, systematically identifying relevant families, and defining the responsibilities of officials, occurred incrementally over decades. The most detailed guide to the city's practice by the 17th century is LMA, CLA/002/07/009 f. 21-23. The process is summarized in: *Lex Londinensis* (London, 1680), 57-99; William Bohun, *Privilegia Londini or, the Laws, Customs, and Priviledges of the City of London* (London, 1702), 313ff.

²¹ Notification by ward constables began in 1516: LMA, Rep 5 COL/CA/1/1/5 f.75. From 1546, parish clerks also provided lists of orphan families: LMA, Rep 11 COL/CA/1/1/11 f.234.

²² LMA, CLA/002/01.

²³ The Common Serjeant was highly selective in deciding which insolvent estates were enrolled, focusing on those owed debts that could provide orphanage money. In the early seventeenth century, the court began to require administrators to provide regular updates on their progress in bringing in debts. Many 'Orphans' Inventories' (LMA, CLA/002/02) are the product of this process.

²⁴ 5% was standard, but rates could vary depending on the amount.

orphans.²⁵ Reputationally diminished, the Orphans' Court nevertheless survived until 1725, when citizens were finally allowed to dispose of their estates as they wished, after which it rapidly declined.²⁶

Alternatively, the administrator could recruit sureties to take possession of the estate and hold it until it could be passed on to the orphans. The set of legal commitments needed to secure the estate generated the records we explore here. The administrator was required to find people who were 'good and sufficient Sureties to be bound for the true and sure payment of the Orphanage and Legatory portions due and belonging unto the Children and Orphans'.²⁷ The most common type of bond was a 'recognizance', and the individuals who were bound 'recognitors' or 'sureties'.²⁸ As a norm, four sureties were required to secure every recognizance. A single recognizance secured a maximum of £300, meaning large estates were spread across multiple bonds. Some networks divided the money to be held, others left it in the hands of one member. From 1535, each individual surety could only hold at most £100,²⁹ although that rule was often ignored by the 1600s.³⁰ The estate was in essence being loaned out, and sureties paid interest or 'finding money', usually 5 percent, that provided for the orphans' needs.³¹ These agreements

²⁵ I. G. Doolittle, 'The City of London's debt to its orphans, 1694–1767', *Bulletin of the Institute of Historical Research*, 56 (1983), 46–59; Vanessa Harding, 'The Crown, the City, and the Orphans: The City of London and Its Finances, 1400–1700', in *Urban Public Debts, Urban Government and the Market for Annuities in Western Europe (14th–18th Centuries)* (Turnhout, 2003); D'Maris Coffman, Judy Z. Stephenson, and Nathan Sussman, 'Financing the Rebuilding of the City of London after the Great Fire of 1666', *Economic History Review*, 75 (2022). More generally: Nathan Sussman, "Financial Developments in London in the Seventeenth Century: The Financial Revolution Revisited." *The Journal of Economic History* 82, no. 2 (2022).

²⁶ City of London Elections Act 11 George 1 cap. 18 sections xvii–xix.

²⁷ *Lex Londinensis*, p. 59. Collateral was not taken, unlike the Netherlands: Schnitzeler, 'Financial', 80, 111.

²⁸ The applications of recognizances have been better studied in the context of misdemeanour: R. B. Shoemaker, *Prosecution and Punishment: Petty Crime and the Law in London and Rural Middlesex, C.1660–1725* (Cambridge, 1991), 25–27, 105–119.

²⁹ LMA, Letter Book P 7 Dec 1535 COL/AD/01/015 f. 79. A ruling on the following February placed this restriction only on sureties for estates valued at £120 or more.

³⁰ Reports from disputes in the Court of Aldermen in the seventeenth century show no standard approach to the distribution of funds among sureties.

³¹ An order on 16 Mar 1535/6 set the rate of 12d in the pound, or 5%; LMA, Letter Book P COL/AD/01/015 f. 87; see also: Letter Book T COL/AD/01/019 f.21 (14 Jan 1560/1). The City also introduced tiers of lower rates for larger estates. These were calculated either on total orphanage value (an apparently short-lived arrangement proposed on 21 Jan 1532/3 Letter Book P COL/AD/01/015 f. 6) or on the amount due to each orphan (Letter Book T 15 Mar 1560/1

remained in force until all the orphans came to the Guildhall, demonstrated that they had married or were of age, and declared satisfaction of their portions. If evidence of an orphan's death was presented to the Court, the portion was redistributed among the surviving orphans or, if they had reached maturity, was collected by an administrator. The bond was then discharged.

The group of people that each executor brought together to act collectively as sureties offer us an insight into who they could recruit to participate in a relatively major financial and social obligation. The responsibilities that sureties undertook were substantial. Although the orphans were in the care of a custodian, usually their mother, who did not have to be a surety, the sureties were responsible for ensuring that they were provided with 'meat, drink, apparel, linen and woollen and all other necessities', and were not married or apprenticed without license from the Court.³² Recognizances were long-term agreements, that could last up to the twenty-one years it took a new-born child to attain their majority.³³ The sums involved could be large, sometimes hundreds of pounds. Where widows were executors, the beneficiaries were their own children, suggesting a strong personal motivation to ensure that the inheritance was safe.

Trust was necessary: the sureties were jointly and severally bound to give the sum guaranteed to the orphan when they reached adulthood or were married. There were incentives: sureties could profit from access to capital at an affordable interest rate. Yet the risks were substantial. If money was lost when a surety failed, *any* of the other sureties bound with them could be sued by the city for a penalty, usually substantially larger than the original inheritance, even if they had returned their own share of the money. Indeed, the court usually began by prosecuting the most

COL/AD/01/019 f. 31). The top of the 5% band was increased from £200 to £800 on the amount held for each orphan on 22 Oct 1605: Letter Book CC COL/AD/01/028 f. 119.

³² *Lex Londinensis*, 63.

³³ It was the responsibility of sureties to find replacements for others who died or decayed. In principle, on the Monday after mid-Lent Sunday each year, one surety appeared before the Court of Aldermen to attest that all the sureties bound by each recognizance were alive and in good condition and the orphans were alive and unmarried: Charles Carlton, 'Changing Jurisdictions in 16th and 17th Century England: The Relationship between the Courts of Orphans and Chancery', *The American Journal of Legal History*, 18 (1974), 127; Robert Fabyan, A. H. Thomas, and I. D. Thornley (ed.), *The Great Chronicle of London* (London, 1938), 246.

accessible sureties and persisting until the inheritance had been recovered, leaving it to those they prosecuted to pursue their peers. This allowed for some renegotiation: when the notable miniaturist Nicholas Hilliard was unable to meet his obligations, he was bailed out by his co-surety John Ballet, who he eventually repaid after a further case in Chancery.³⁴ Sureties who were unable to return the orphans' portion might end in prison. One surety who failed, John Rutlish, petitioned the aldermen in 1624 for bail after spending six months in prison, while in 1595 Matthew Muggleston had spent six years in prison. Both were only released when the orphans were satisfied by other recognitors.³⁵

Clearly, these networks represent only one dimension of the participants' social and economic relationships. Who could be selected as a surety was limited: they needed to be financially secure enough to guarantee the sums involved; they were usually men, in part because of the legal incapacities imposed upon married women; they were normally citizens until the seventeenth century; they were necessarily adults. The Court, moreover, had final say over proposed recognitors, and preferred that the money should be delivered to 'yonge men that be towarde and lykely to prosper'.³⁶

The type of connection was also selective. The orphans' families were at least prosperous and often rich.³⁷ The trust involved in becoming a surety does not inevitably overlap with friendship, affection or the frequency of interaction. One might turn to a rarely seen family member to hold one's children's inheritances ahead of a business partner or a friendly neighbour that one saw daily. The durability of the relationship and norms of mutual obligation would affect who

³⁴ Erna Auerbach, *Nicholas Hilliard* (London, 1961), 20-23. The original recognizance is LMA, Rep 21 COL/CA/1/1/23, f. 146.

³⁵ LMA, Rep 39, 27 Jan 1624 COL/CA/1/1/43, f. 83-4; Rep 23, 22 May 1595 COL/CA/1/1/25, f. 402.

³⁶ 14 Feb 1535/6 LMA, Letter Book P COL/AD/01/015 f. 80. The Court checked sureties had sufficient wealth before accepting them. Asquith identifies greater social depth in executor's networks: 'Piety', 202-213.

³⁷ The value of the average inheritance secured by recognizance fell from the fifteenth century onwards. In 1400-49, the median was £66 (£244 in 1600 pounds), and the mean was £155 (£520 in 1600 pounds). By 1600-49, the median was £124, (£109 in 1600 pounds), and the mean was £206 (£178 in 1600 pounds). Improved monitoring pushed smaller estates into the system.

entered into a recognizance.³⁸ Being able to find a use for the capital would also set a boundary on participation. In short, a range of contingent, practical factors influenced surety selection; as a result, these were ties among the prosperous urban elite, not between the generality.

Nonetheless, that trust surely sat at the root out of these relationships is evident from instances where we possess more information about individuals' connections. The individuals drawn together in recognizances shared other meaningful personal and commercial ties.³⁹ The accounts left by the mercer John Isham (1525-1596), for example, show that he had other financial ties to fifteen of the seventeen individuals who were named in the six recognizances he joined between 1554 and 1568.⁴⁰ The scale of the undertaking sureties were accepting gives us some confidence that this represents one important type of relationship at least, akin to those observed in credit and commercial networks, and that any commonalities that we observe within surety networks will reflect some of the ways in which they were formed.

Data

The activities of the Orphans' Court appear in different parts of the City of London's records from the mid fourteenth century to the late eighteenth century. For the period before 1497, we extracted all cases appearing in the published Letter Books of the City of London. These volumes cover 1275-1497 and record orphans' recognizances alongside other business.⁴¹ They are most numerous from the 1380s, with few records prior to that. Over two hundred orphans' recognizances survive for

³⁸ That trust varies between 'types of trust relationships' is a standard assumption: J. David Lewis and Andrew Weigert, 'Trust as a Social Reality', *Social forces*, 63 (1985), 972-4.

³⁹ In contrast, Shoemaker's analysis of sureties in Middlesex recognizances for misdemeanours emphasises the importance of magistrates in guiding selection of those who could exert 'maximum possible pressure'. Yet those recruited must still have been willing to accept the liability: *Prosecution*, pp. 108.

⁴⁰ G. D. Ramsey (ed.), *John Isham's Accounts 1558-1572* (Northamptonshire Rec. Soc. 21, Northampton, 1962).

⁴¹ Reginald Sharpe (ed.), *Calendar of Letter-Books Preserved among the Archives of the Corporation. Letter-Book A(-L)* (London, 1899). LMA, COL/AD/1/1-11.

the fifteenth century and more than sixty for the fourteenth century. Later records are extracted from the surviving manuscript records across the city archives.⁴²

Table 1: The scale of the Orphans’ Court Dataset

Century	Estates	Recognizances	Sureties/ Obligators	Unique recognizances	Unique sureties
1300-99	59	61	215	61	201
1400-99	201	236	914	234	821
1500-99	3,825	8,545	20,243	7,812	13,342
1600-99	7,720	9,419	15,950	6,870	12,591
Total	11805	18261	37322	14977	26955

Note: unique sureties are identified by grouping sureties who share the same (standardized) forenames, surnames and guild within a 50-year time window.

We know the details of over eighteen thousand recognizances (table 1) involving over thirty-seven thousand individual sureties. Some recognizance networks are duplicates, with the same group of people securing multiple tranches of an estate. Excluding duplicates leaves us with just under fifteen thousand unique recognizance networks.⁴³ Similarly, some individuals were sureties on several estates. After identifying duplicate appearances, we have information on almost twenty-seven thousand individuals.⁴⁴

The characteristics of the people who acted as sureties are set out in table 2, arranged by century. Information on sureties’ status – guild, rank and occupation -

⁴² The dataset is extracted from: Letter Books of the Common Council M to ZZ (LMA, COL/AD/1/12-50), dovetailing with the published volumes that end with Letter Book L; Journals of the Common Council (LMA, COL/CC/1/1/10-50); Minutes of Common Hall (used to record recognizances during 1642-1660) (LMA, COL/CN/1/1/1-5); Repertories of Court of Aldermen 1-105 (1495-1700) (LMA, COL/CA/1/1/1-109), especially from the 1530s when recognizances are reliably minuted; the Clerk of Orphans’ recognizances books (CLA/2/5/1-10). The city’s surveillance and recording process collapse after the bankruptcy.

⁴³ Some sureties also appear on multiple different recognizances for large estates.

⁴⁴ Multiple appearances were identified by manually matching people by name and guild/trade. Matches were restricted to sureties appearing within 30-year windows. Inevitably some potential duplicates will have been missed, or false matches identified. Errors are likely to be limited, as two-thirds of multiple appearances occur within a 10-year window and 92 per cent are within a 20-year window. In total, 771 people appear more than once. The great majority (81%) appear twice or (14%) three times. The maximum is seven appearances, by Richard Middleton, Grocer, between 1612 and 1640.

is incomplete at first, but becomes more consistent over time and is effectively universal from 1500. The great majority of male sureties were guild members throughout; the lower share in the fourteenth century is the result of less precise labelling and gaps than anything else.⁴⁵ Most recognizances were secured by groups of sureties who were guild members: only four per cent included a male who was not a guild member and not a gentleman, in nine-tenths, *all* the male sureties were guild members. Once addresses are given after c.1600, ten per cent of recognizances included a male surety from outside London; larger estates were more likely to recruit a gentleman or provincial surety.⁴⁶ For the most part, sureties were London's citizen middle class and elite acting together to support the families of their peers.

One major change was the growth in the number of women, almost entirely widows, among sureties. Women rarely appeared in the fourteenth and fifteenth centuries but supplied 13 per cent of sureties in the seventeenth century, as widows serving as administrators increasingly became sureties. By then, around a half of recognizances included a female surety, especially when estates were smaller. Widows now had a normal place in the formal management of their children's inheritances.⁴⁷

Table 2: Characteristics of Sureties

Period	1300-99	1400-99	1500-99	1600-99
Female (%)	2	4	8	13
Status known (%)	69	87	100	99
Guild member (%)	80	91	91	76
Widow (%)	2	1	8	13
Gentry (%)	0	1	0	6
Trade (%)	14	5	1	4

⁴⁵ The small number of sureties identified with a trade includes one important ambiguity: people described as 'merchant', who may have possessed a guild affiliation, possibly as Merchant Taylors.

⁴⁶ Probit regressions show that the probability that a network of sureties includes a gentleman or someone living outside London is positively correlated with the value of the estate ($p=0.000$). Results available on request.

⁴⁷ Amy Louise Erickson, *Women and Property in Early Modern England* (London, 1993), 156-161. Note that only women identified explicitly as widow are coded as such.

Other/Unknown (%)	2	4	8	13
subtotal	100	100	100	100
Place known (%)	0	0	0	45
London (%)				90
Outside (%)				8
Subtotal				100
N	201	817	13342	12591

Note: The table reports the characteristics of all individual sureties in the dataset. Duplicate appearances by the same individuals are excluded, where identified. The sub-sections reporting the categories of status and place are reported as shares of sureties for whom information is recorded. London includes Middlesex.

The majority of recognizances listed four people acting as sureties.⁴⁸ For most, the executor or administrator can be identified as the probable central node of the network. However, as liability was joint, we treat the individuals involved equally, and evaluate all potential ties between sureties.⁴⁹ We focus on the sureties involved in the first set of recognizances that secured the estate. These are most likely to show any connections to the deceased, as well as between sureties.⁵⁰ They are also less likely to be affected by changes in relationships, such as the remarriage of widows (their new husband often became a surety), or the death or failure of sureties.

What ties can we assess? The range of information given in the city's records increases over time. From the outset, we know most sureties' surnames and their guild, status or occupation. From c.1600, we increasingly have an address. Obviously, these will not explain all ties. Far from it. Relationships might have originated through civil society in coffee houses, sermons and lectures, or ripened in the less civil society of the city's taverns and theatres.⁵¹ That said, the three sources of connection that we can examine, guild, family and place, are strong candidates for consideration in most discussions of the social fabric of premodern cities.

⁴⁸ 79% have 4 sureties; 8% have 3; and 5% have 2 sureties.

⁴⁹ If we instead measure bilateral ties to a 'lead' surety our results are unaffected: see Appendix 3.

⁵⁰ We focus on surety-surety ties, but Appendix 1 reports additional results for deceased-surety ties that show this leaves our results unchanged.

⁵¹ Bucholz and Ward, *London*, 203.

Guilds

Our first question is the degree to which the sureties involved in a recognizance were members of the same guild. Shared guild membership is one potential source of mutual trust between fellow freemen, as they came together to organize their trade, pray, and feast together. Smith, for example, suggests that, for London's merchants, guilds were 'at the heart of their daily lives', as 'deeply social organizations' that helped build relationships,⁵² while Bucholz and Ward agree that 'livery companies fostered community amid the potentially faceless anonymity of the town'.⁵³ Dissenting voices exist. Zahedieh cautions that by the later seventeenth century, the livery companies 'did not play a major role in structuring colonial commerce', as merchants were scattered.⁵⁴ However, most would agree with Valerie Pearl that 'in the seventeenth as in the medieval period, [Londoners'] life still found expression in an intricate formality of fraternal social organization'.⁵⁵

It is striking, therefore, that shared guild membership markedly declined within recognizances. If we look at the proportion of recognizances that were secured by sureties from one guild, 'homogenous' in table 3, this falls from 32 per cent of networks in 1400-49 to 8 per cent two centuries later. Conversely, the share of recognizances in which everyone was from a *different* guild ('heterogenous' in table 3) rose from 32 per cent to 65 per cent. By 1650-99, only around a third of recognizances included more than one surety from the same guild, compared to four out of five in the second half of the fifteenth century: guild membership was no longer a common connection between sureties.

⁵² Edmond Smith, *Merchants: The Community That Shaped England's Trade and Empire, 1550-1650* (New Haven, 2021), 8, 9, also 59-61. See also: Perry Gauci, *Emporium of the World: The Merchants of London, 1660-1800* (London, 2007).

⁵³ Bucholz and Ward, *London*, 78. Generally: Ian W. Archer, *The Pursuit of Stability: Social Relations in Elizabethan London* (Cambridge, 1991), esp. 100-120; Steve Rappaport, *Worlds within Worlds: Structures of Life in Sixteenth-Century London* (Cambridge, 1989); Joseph P. Ward, *Metropolitan Communities: Trade Guilds, Identity, and Change in Early Modern London* (Stanford, 1997), 123-4, 144-6. Similar points have been made for other cities: David Harris Sacks, *The Widening Gate: Bristol and the Atlantic Economy, 1450-1700* (Berkeley, 1991), 117.

⁵⁴ Nuala Zahedieh, *The Capital and the Colonies: London and the Atlantic Economy, 1660-1700* (Cambridge, 2010), 103.

⁵⁵ V. Pearl, 'Change and Stability in Seventeenth-Century London', *London Journal*, 5 (1979). Recent studies highlights guilds' persistence: Michael Berlin, 'Guilds in Decline? London Livery Companies and the Rise of a Liberal Economy, 1600-1800', in S. R. Epstein and Maarten Prak (ed.) *Guilds, Innovation, and the European Economy, 1400-1800* (Cambridge, 2008).

Table 3: Guild Connections among Sureties

	Homogenous (%)	Some clustering (%)	Heterogenous (%)	Total (%)	Connectedness Score (mean)
1400-49	32.61	34.78	32.61	100	0.35
1450-99	31.4	47.67	20.93	100	0.40
1500-49	17.15	49.00	33.85	100	0.29
1550-99	12.47	48.08	39.45	100	0.25
1600-49	10.08	33.78	56.13	100	0.17
1650-99	8.11	26.85	65.04	100	0.14
All	12.43	40.61	46.96	100	0.22

Note: the connectedness score is calculated only for sureties with a guild affiliation. ‘Some clustering’ is a recognizance in which at least 2 sureties are in one guild, but at least 1 surety is in a different guild.

Table 3 also reports a ‘connectedness score’ that measures the presence of common guild membership in recognizance networks. This is calculated as the ratio of the number of different guilds represented in a network to the number of sureties who were guild members, standardized to range from zero (all sureties are from different guilds) to one (all sureties are from the same guild).⁵⁶ The average connectedness score fell from around 0.4 in the fifteenth century to below 0.2 by the later seventeenth century. As well as confirming that networks drawn from an array of different guilds grew ever more common, this underlines the normality of some diversity throughout this period. Recognizances were never wholly dominated by tightly knit groups from one guild. Even in the fifteenth century, connections between members of different guilds were commonplace.

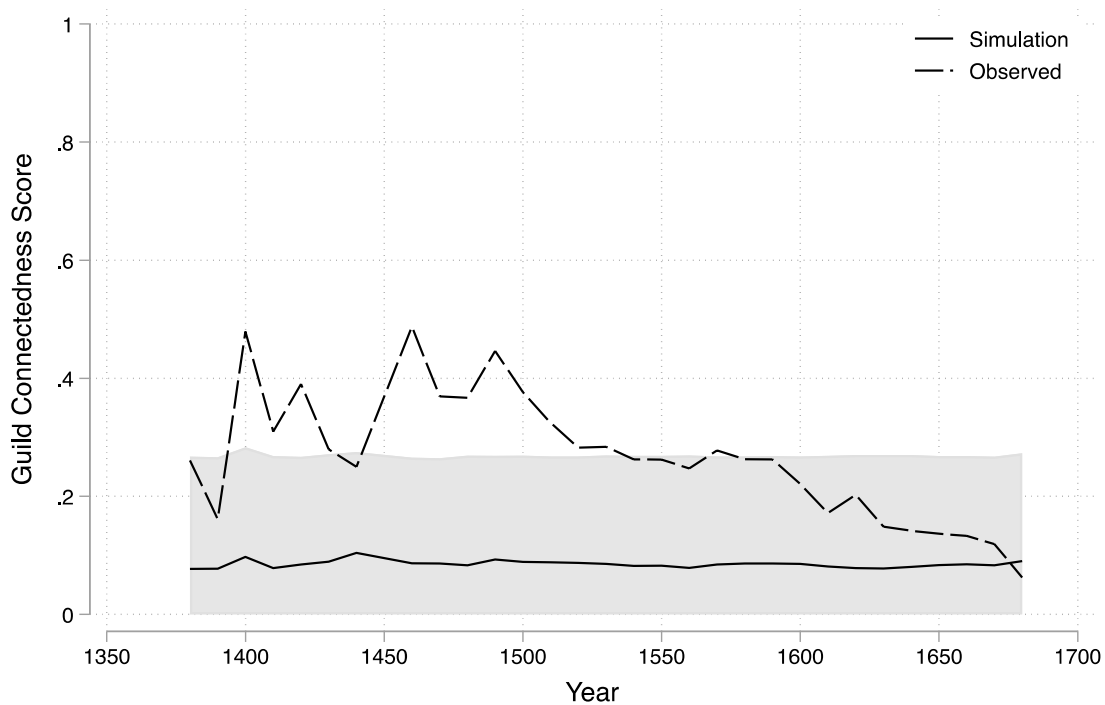
How meaningful is this decline in shared guild membership among sureties? To help interpret the level of connections between guild members that existed in recognizance networks, we simulated what would happen if those people who appeared as sureties had been assigned randomly to the set of recognizances created in each decade. This estimates the number of connections that would exist if guild membership did *not* generate relationships. Some recognizances would still

⁵⁶ We calculated a connectedness score for all recognizances with more than one surety with a reported guild; sureties without a guild are excluded. The results are unchanged if we limit the sample to cases in which the executor was also a guild member.

include multiple sureties from one guild, but this would occur by chance, not because of their affiliation, and the frequency with which this happened would reflect the number of sureties from each guild.

The average connectedness score for our simulated population is compared to the average connectedness score observed in recognizances in figure 1. Connectedness through guild membership within London's surety networks converged with the level we expect if sureties were allocated at random in the seventeenth century. The importance of London's guilds in defining networks of trust declined from the start of the sixteenth century onwards. By the seventeenth century, guild membership had almost no discernible role in explaining the composition of groups of sureties.

Figure 1: Simulated and observed guild connectedness in recognizances

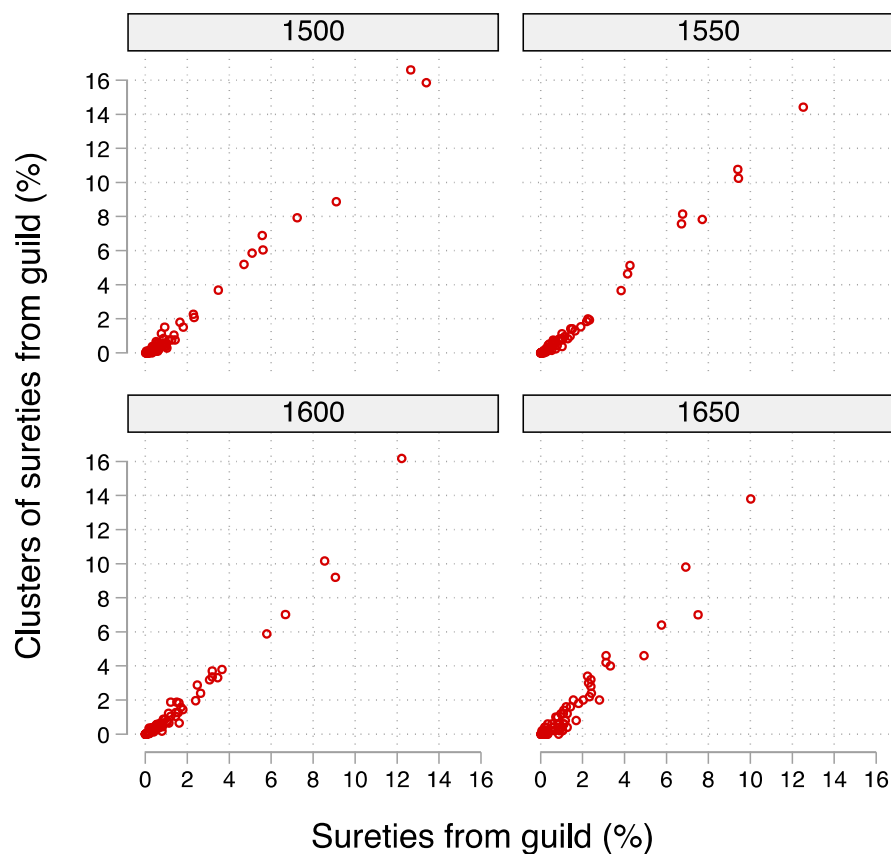


Note: The shaded area indicates one standard deviation around the simulation, calculated per decade. The simulated level of variation is based on randomly assigning sureties to recognizance networks and calculating the level of connectedness. The number and size of simulated recognizance networks matched that we observe in the data. The simulation was run 1,000 times.

One might anticipate that this overall decline in guild-centred networks would conceal a few guilds which continued to possess stronger communities that

produced higher levels of connectedness between their members. Perhaps larger guilds were ‘more hierarchical and less convivial’, for example?⁵⁷ In fact, the recognizances give no sign that a subset of London’s guilds generated more connections among members than others, despite their many other differences in size, homogeneity of trade, wealth and political influence. If we compare the share of the surety guild clusters that were formed by members of any specific guild with the number of sureties in that guild, the correlation is very high, as figure 2 shows.⁵⁸ There is nothing to suggest that members of large and more diverse guilds, such as the Drapers or Merchant Taylors, were less likely to join together in recognizances than members of smaller and more homogenous guilds, like the Apothecaries.

Figure 2: relationship between share of sureties and share of clusters from each guild, 1600-99.



Graphs by halfcent

⁵⁷ Bucholz and Ward, *London*, 79.

⁵⁸ The correlation coefficient is between 0.97 to 0.99.

The dilution of guild connections over time did not happen because sureties came from the margins of corporate life. If anything, sureties were more intimately involved with their guild than the average citizen. The 1641 Poll Tax allows us to compare known sureties with their fellow freemen at a point at which guilds were producing few connections: 15% of sureties were members of their guild's governing body compared to 5% of freemen; another 43% were liverymen, compared to 16% of freemen.⁵⁹ The Masters who led at least six guilds in 1641 - the Vintners, Wax Chandlers, Skinners, Ironmongers, Barber Surgeons and Bowyers - had all stood as sureties in the previous five years.

We have focused so far on links between sureties, but what about their connections to the deceased father? Guild links do seem to have mattered. One in five sureties were from the same guild as the deceased, far more than if guilds were irrelevant, and, overall, about 40 per cent of recognizances included one surety from the deceased's guild. This may over-estimate the contribution of the guild, as some deceased had relatives in their guild. However, as with the sureties, the frequency of guild connections between sureties and deceased fell: 35 per cent of sureties were in the same guild in the last half of the fifteenth century, but just 18 per cent were in the first half of the seventeenth century.

While we have treated membership of the same guild as indicating connections formed through fraternal sociability, there is an important caveat: guild connections overlapped with - and may have been secondary to - ties forged in the workplace. Although we lack information about journeyman hirings or partnerships, we can use the apprenticeship records of a sub-sample of sureties to find out who they had served.⁶⁰

⁵⁹ We found 60% (276 of 462) of sureties active between 1636-41 within the 1641 tax listings from 26 guilds. These 26 listings contain 9,883 individuals: TNA, E179/251/22, SP28/164, 166, 170, 198.

⁶⁰ 2,125 sureties were matched by name and date to a large sample of London records covering 60 guilds. The linkage allows for spelling variation to a Lowenstein string distance of 2. 139 of 1,513 sureties served the same master as another surety (excluding those linked by family). Not all the matched apprentices had enough information on their master to identify groups trained by the same master.

Where two sureties had served the same master, they were much more likely to appear together in a recognizance: in around 8 per cent of the recognizances they entered, they were bound alongside another surety trained in the same workshop.⁶¹ This implies that up to 16 per cent of clusters of sureties from the same guild may be relationships formed within a specific workshop. Workshop ties to the deceased also mattered: 4 per cent of sureties were securing the estate of their former master, and 8 per cent were securing the estate of someone trained by the same master as them.⁶² To put this in context, links forged in the workshop might explain half of the cases where the deceased and sureties were in the same guild.

In short, it may have been durable working and service relationships, more than the broader guild, that drew many of them together. As shared guild membership became less common among sureties, the ties that masters and apprentices formed within workplaces accounted for a larger share of connections between deceased and their sureties.⁶³

Kinship

After the death of her husband Giles, a Clothworker, in 1645, the sureties that Anne Townsend recruited to secure her children's inheritance included her brother-in-law George Townsend, a gentleman of Staple's Inn, Edward Carter, a Grocer, and Jeremiah Arnold, a Stationer. George had also been appointed an overseer in his brother's will, who bequeathed him 20 shillings to buy a ring as a memento mori.⁶⁴ Family connections such as those between Anne and George are generally thought to have been a primary source of strong social ties. As Muldrew observed in his study of early modern credit networks, 'larger loans were commonly obtained from kin, where the closeness of the relation could add an extra degree of trust.'⁶⁵

⁶¹ 18 of the 216 appearances in recognizances made by the 139 sureties who had served a master who bound more than one surety. 52% of recognizances involving these sureties included a guild connection, hence the 16%.

⁶² Both exclude sureties trained by their father. Former master, 76/2,125; former fellow apprentice, 27/325 (the number of observations falls because this requires knowing the master of both deceased and surety).

⁶³ Rising from 5% in 1500-49, to 19% in 1600-49, and 32% in 1650-79.

⁶⁴ TNA, PROB 11/193, f. 15; LMA, Rep 58, 16 Dec 1645 LMA, COL/CA/1/1/62 f.38.

⁶⁵ Muldrew, *Economy*, 113.

Even though urban demography left cities profoundly dependent on migrants establishing neolocal households, family remained a consistently important category in decisions about who to work or trade with, and who to call upon when in need among rich and poor.⁶⁶ While classic analyses of European society often highlighted a weakening of kinship, in the seventeenth and eighteenth centuries family may even have been becoming more important, with a move towards a 'bourgeois family model' identified in some parts of Europe.⁶⁷

Although superficially the most obvious of connections, kinship is the hardest thread to trace. The simplest available indicator is when sureties shared surnames, as Anne and George did. This usefully captures some immediate family ties, those between parents and sons, and between brothers. However, beyond the nuclear family, shared surnames rapidly become uncommon among kin. The particular weakness of surnames are that they offer no insight into connections through marriage: their surnames don't reveal if the other sureties Anne recruited, Edward Carter and Jeremiah Arnold, were drawn from her birth family.

Judged by shared surnames, George Townsend's presence as a surety was an exception: kinship ties measured this way only appear in a modest minority of recognizances. Close family of the deceased rarely served as sureties. If we exclude widows, who necessarily shared the deceased's surname and were generally their executor, just 6 percent of sureties had the same surname as the deceased and only 15 percent of recognizances included someone identified as kin to the deceased

⁶⁶ The literature is extensive, but particularly relevant are: Zahedieh, *Capital*, 106-8; Ian Archer, 'Social Networks in Restoration London: The Evidence from Samuel Pepys' Diary', in Alexandra Shepard and Phil Withington (ed.) *Communities in Early Modern England* (Manchester, 2000), 87-88; N. Tadmor, *Family and Friends in 18th-Century England: Household, Kinship and Patronage* (Cambridge, 2000); W. Coster, *Family and Kinship in England, 1450-1800* (London, 2016). I. K. Ben-Amos, *The Culture of Giving: Informal Support and Gift-Exchange in Early Modern England* (Cambridge, 2008); J. Healey, 'Kin support and the English poor: evidence from Lancashire, c.1620-1710.' *Historical Research*, 92(256). For a survey: Naomi Tadmor, 'Early Modern English Kinship in the Long Run: Reflections on Continuity and Change.' *Continuity and Change* 25, Special Issue 01 (2010). Kinship centrality was widespread: Gagan Sood, *India and the Islamic Heartlands* (Cambridge, 2016), 79-94, 119-20; R. Harris, *Going the Distance* (Princeton, 2020), 173-97.

⁶⁷ Surveyed in: Lynch, *Individuals*, 4-14; David Cressy, 'Kinship and Kin Interaction in Early Modern England', *Past and Present* (1986). On family business: Geoffrey Crossick and Heinz-Gerhard Haupt, *The Petite Bourgeoisie in Europe, 1780-1914* (London, 2016), 88-89.

(table 4).⁶⁸ Sureties were more likely to be related to other sureties, with 12 percent sharing the surname of a fellow surety; 20 percent of recognizances included a cluster of sureties with the same surname. However, surety networks entirely sharing the same surname were very rare – accounting for only 4 per cent of recognizances. Interestingly, female sureties were more likely to have kinship ties to other sureties: by the seventeenth century, 21 percent of women in recognizances shared the surname of at least one other surety, compared to 15 percent of men.

The presence of kinship in trust networks grew substantially over time. The share of sureties whose surname matched another person in their recognizance quintupled from 3 per cent in the fourteenth century to 15 per cent in the seventeenth century.⁶⁹ After 1600, a quarter of recognizances included a cluster of kin.⁷⁰ The increasing presence of people sharing surnames suggests a substantial increase in Londoners' reliance on close family in their networks of credit and trust.

Table 4 Kinship by common surname in surety and recognizances

	Sureties with			Recognizances containing		
	Same surname as deceased	Same surname as another surety	N	1+ sureties with same surname as deceased	2+ sureties sharing a surname	
	%	%	N	%	%	N
1300-99	2.4	2.8	210	6.8	5.1	61
1400-99	4.5	5.1	900	16.0	7.0	234
1500-99	3.3	8.8	24,912	10.0	15.7	7,699
1600-	9.0	16.4	21,324	20.1	24.4	6,754
Total	5.8	12.1	47,346	15.1	19.6	14,748

Note: count of sureties with surname matches excludes widows in cols 1 and 4. Sureties whose name matches that of a widow acting as a surety are counted as a match in col 2 and a cluster in 5.

⁶⁸ Including widows lifts the surname match with the deceased to 11 per cent.

⁶⁹ This change was not affected by shifts in City rules about the number of sureties needed to secure an estate. See Appendix 5.

⁷⁰ Surnames were matched using exact strings, as variants were reduced in the initial indexing.

How much is concealed from us by this reliance on surnames? For some individuals, we can discover more about their families from two sources, both focusing on London's political and social elites at a stage when kinship was prominent: Woodhead's study of Common Councilmen and Aldermen, which identifies relatives from marriage and probate records, and the 1633 *Visitation of London*, which contains limited genealogical information on citizens who asserted themselves as gentlemen.⁷¹ These allow us to identify connections that are invisible from surnames alone.

Surprisingly, few sureties were related through their mother's line, but 10 to 20 per cent were plausibly related through their marriage or that of their sister or children (table 5). A good example of this is the network that Martha Sanders constructed after her husband John Sanders' death in 1663. It included Geoffrey Thomas, Merchant Taylor, whose (second?) wife was Elizabeth, Martha's sister,⁷² and Michael Davison, Clothworker, who had married Martha's other sister Judith.⁷³ The third member, Daniel Shetterden, Armourer, of London, was presumably a relative of Martha, perhaps her brother: her father was also called Daniel Shetterden, though he lived in Eltham in Kent. These were interlinked nuclear families, not distant relatives.

⁷¹ We restricted our search to sureties active 1640-70 and people who died after 1660 to achieve an overlap with Woodhead's focus on 1660-1689. For the *Visitation*, matches were restricted to sureties active when a listed individual was adult and alive. Matches were based on surname, forename and guild.

⁷² LMA, Rep 69, 12 Nov 1663 COL/CA/01/01/073. "Jeffrey" Thomas and Elizabeth were left legacies in Daniel Shetterden's will, as was Martha, and Michael and Judith Davison: TNA PCC PROB 11/333, ff. 221r-v (4 July 1670). By then Martha was Martha White, having married Robert White, merchant taylor, who later became a surety: LMA, Rep 80, 13 Apr 1675 COL/CA/01/01/084; *Records of London Livery Company online*, s.v. "Sanders, Michael".

⁷³ J R Woodhead, *The Rulers of London 1660-1689 A Biographical Record of the Aldermen and Common Councilmen of the City of London* (London, 1966), 56-63. *British History Online* <http://www.british-history.ac.uk/no-series/london-rulers/1660-89/pp56-63> [accessed 2 September 2022].

Table 5: Ties through kin with different surnames

	Woodhead, <i>Rulers</i>		<i>Visitation</i>	
	%	N	%	N
Link via mother's kin	1	83	3	90
Link via wife's kin	9 - 11	166	18	100
Link via sister/children	12 - 23	52	-	-

Note: Woodhead's data does not always allow us to identify if in-laws were through a wife or sister. The ranges indicate minimum and maximum shares as a result.

Adding the proportion of sureties who were related without sharing a surname roughly doubles the presence of kinship ties apparent via surnames. By the seventeenth century, kinship probably connected at least a third of sureties. Our information on extended kinship covers a relatively small numbers of sureties who probably had even higher status than the average. However, combined with our evidence from surnames, it makes a compelling case that as guilds lost their power to connect Londoners, kinship expanded to fill much of the space.

Neighbourhood

Londoners lived and worked in an intensely local world, often in sight and hearing of the other residents of their building or street. The power of locality was reinforced by the microscopic scale of the main religious and civic institution, the parish, within the walls of the city. Residents of each neighbourhood worshipped together, were buried together, and – for the people who generally appeared in the Orphans' Court – served together within the strata of urban government.⁷⁴ They also traded together: credit was mainly extended, Muldrew notes, 'between friends, neighbours and kin'.⁷⁵ How important was neighbourliness, membership of a localized, spatially-rooted community, in connecting sureties?

Neighbourliness is the social expression of local community. We use the straight-line distance between people as a proxy for the likelihood that they were part of the

⁷⁴ Boulton, *Neighbourhood*, 138-65; 210-227; Archer, *Pursuit*, 75-77.

⁷⁵ Muldrew, *Economy*, 111.

same community. Without information on the extent, nature or idiosyncrasies of actual communities, this is unavoidably imperfect. It is easy to imagine situations where two people might be physically close but separated by a barrier – such as the city wall – or a tangle of poorly-connected streets. Equally, living near another person does not inevitably lead to a relationship. The relative precision of the sureties' addresses, often including their street, offers some reassurance that we can at least characterize place networks with reasonable accuracy. Unfortunately, addresses are only available for the seventeenth century, so cannot see whether the role of place changed over time.⁷⁶ Evidence from other sources suggests that place was always a strong source of connections.⁷⁷ Some links might even have been rooted in the places where people spent childhoods outside the metropolis, although this seems rare even in this city of migrants.⁷⁸

A sense of the potential importance of place can be found in figure 4, which illustrates two networks. The first was established by Anne Henshaw, widow and executrix of the Merchant Taylor Benjamin, in Cheapside (the couple were described by Hartlib as 'great chemists').⁷⁹ While Anne later moved out to Kensington, the sureties she recruited were from the small area where she had lived in its heart: two, Ralph Serocold, another Merchant Taylor, and William Geere, Draper, also lived on Cheapside, one of the city's most important commercial thoroughfares, and the third, Thomas Marsham, esquire, lived on Milk Street, a smaller street which ran northwards from a junction at the middle of Cheapside. The second group secured the estate of Thomas Eve, Innholder. It included two men living on Cateaton Street, just below Guildhall, John Butling, Grocer and George Langley, Innholder, another Edmund Shawe, Merchant Taylor, on Coleman Street which ran north from the end of Cateaton Street, and a fourth, Edward Taylor,

⁷⁶ Recording addresses was presumably a response to the expansion of London. In 1600-9, 4 per cent of recognizances included *any* addresses; by 1670-9, 73 per cent listed all sureties' addresses.

⁷⁷ On neighbourhood and executorship: Justin Colson, 'Reinterpreting Space: Mapping People and Relationships in Late Medieval and Early Modern English Cities Using GIS', *Urban History*, 47 (2020).

⁷⁸ We identified the place of origin of two or more sureties in 423 recognizances from apprenticeship records. Excluding siblings and cousins, only 4% came from the same county, and just 2% from the same place. See:

⁷⁹ J. Speake, 'Henshaw, Thomas (1618–1700), alchemist and writer', in *Oxford Dictionary of National Biography*. Retrieved 11 Nov. 2022

Vintner, on Poultry, a hundred yards or so to the south. Both recognizances were in the hands of sureties drawn from different guilds whose homes were separated by a few minutes' walk from each other; it seems unlikely this was accidental.



How common was the kind of locally-rooted network that Henshaw and Eve's executors had constructed? A significant share of sureties lived close to one another: 21 per cent were in the same location – place, street or parish – as another surety in their recognizance, and 44 per cent lived within 500 metres of another. These are distances that suggest neighbourhood relationships mattered. Like guilds, sureties did not need to be neighbours: 20 per cent were more than 2km apart. Nonetheless, of the 2,678 recognizances with addresses for at least part of the network, almost half (48 per cent) included at least two people from the same place. Significantly, place clusters were at the core of the network, with widows and executors both more likely to be found in such a pair than other sureties.

While it is perhaps not surprising that physical proximity was a feature of many relationships in seventeenth-century London, it is notable that many more sureties shared a neighbourhood than shared a guild.⁸⁰ If we treat sureties living within 500m of each other as part of the same neighbourhood, then 77 per cent of recognizances include at least one pair from the same area. Only 30 per cent of the same sample of recognizances included a pair of sureties who were members of the same guild, and 23 percent included a pair with the same surname.⁸¹ Neighbourhood, family and guild connections mutually reinforced each other, but place not corporate fraternity was the most common connection by the seventeenth century.

Thinking about the relative importance of neighbourhood brings us to a final important caveat: we have treated our three indications of ties separately in our analysis. Might they instead be overlapping? If so, our results could be biased. For example, if guilds mostly recruited their members from within families, then kinship might explain our results, not institutional life. Reassuringly, this seems not to be the case. When we examine overlaps, sureties with the same surname account for a modest share – 4.6 per cent – of guild connections (if we reverse this, a larger share, 29 per cent, of sureties with shared surnames are also in the same guild). Place, in turn, overlaps with only 22 per cent of guild ties. In short, while some sureties were connected in several ways, these explain only a minority of the ties we observe within networks, and overlaps do not explain the developments we observe.⁸²

Discussion

The growing importance of kinship and the slackening of the contribution of guilds to social relationships in the city coincided with several major changes that each

⁸⁰ Place ties complement guild ties, likely reflecting the spatial clustering of occupations. The average distance between sureties who were members of the same guild is lower (837m vs 1074m; $p = 0.005$)

⁸¹ Calculated for 1,358 recognizances from the 17th century.

⁸² Detailed statistics on overlaps are reported in Appendix 2.

plausibly played a part in explaining these changes. Two candidates stand out, however.

First, the Reformation had a particular impact on English guild life, stripping away many of the spiritual activities that had been the focus of confraternities.⁸³ Until the Reformation, guilds helped to fashion spiritual as well as occupational kinship among their brethren. That strong trusting relationships were particularly likely to be fostered within such religiously infused communities, aligns with the contemporary emphasis on trust as rooted in Christian belief and community. The ‘faith and fidelitie betwixt man and man’ that John Mellis looked to in 1588 was founded in a belief that honesty conformed with divine law.⁸⁴ By 1600, London’s guilds rarely prayed together or gathered at burials, activities that had once been central to their collective existence. Their ties to religious activities withered with the suppression of their confraternal dimension, leaving perhaps a sermon or two a year at one of the city’s churches, but little more.⁸⁵

Second, in a no less dramatic change, the city had swollen massively, from around 70,000 inhabitants in 1550 to 300,000 a century later.⁸⁶ New neighbourhoods spilled beyond the city’s old boundaries, and occupations spread, diluting the concentration of crafts in specific quarters.⁸⁷ Ever dependent on migrants, London’s growth increased the likelihood that multiple members of an extended family would live in the metropolis, facilitating a fresh reliance on kin that would intensify in the eighteenth century. As Lynch noted, ‘the sheer availability of kin in close proximity helped to determine levels of kin solidarity within the city’.⁸⁸ One fuel for this expansion was the expanding port complex that emerged as trade increased and

⁸³ Most confraternities were not trade guilds, but most guilds had associated confraternities: Susan Brigden, *London and the Reformation* (Oxford, 1989), 35-36; Rosser, *Art*, pp. 4, 161.

⁸⁴ Mellis is quoted in Muldrew, *Economy*, and the argument here relies on his analysis on pp. 128-30.

⁸⁵ In 1630, the Grocers’ Company pay for two sermons and the Coopers’ one: LMA, CLC/L/GH/D/001/MS11571/11, 32r, 34r; CLC/L/CI/D/001/MS05606/003, ff. 277r.

⁸⁶ Figures for the 122 Parishes: V. Harding, ‘The Population of London, 1500-1700: A Review of the Published Evidence’, *London Journal*, 15 (1990), 112 (table 1).

⁸⁷ J. Colson, ‘Commerce, clusters, and community: a re-evaluation of the occupational geography of London, c. 1400–c. 1550’, *Economic History Review*, 69 (2016), 104–30.

⁸⁸ Lynch, *Individual*, 66; Schnitzeler, ‘Financial’, 86-87.

diversified.⁸⁹ Much of the wealth of London was now in the hands of merchants who were members of multiple organizations, such as the Levant and East India Companies, or none, and for whom their guilds were one of many institutions in which they interacted with peers.

It is worth pausing to note that it is not obvious that these developments would weaken the role of guilds in shaping connections between their members. Guilds remained active in trade regulation, charity, and political lobbying into the seventeenth century.⁹⁰ Most male Londoners were guild members until after 1650. Perhaps most significantly, much of the social fabric of guild life continued. Collective sociability remained strong across the period when guilds' decline in surety networks. Our best source for this, the guilds' Warden's Accounts, indicate that much meeting and eating, the heart of their interaction, continued.⁹¹ To give just a few examples. The wealthy and powerful Grocers' Company in 1630 spent £141 on dinners for the company, including major events on their Commemoration Dinner and Election Dinner, and another £12 on the pomp of the Lord Mayor's Day.⁹² Despite coming from a different social and economic position, the Coopers' Company in 1629-30 regularly gave dinners for the Court of Assistants, with larger feasts on Election day, Bartholomew Fair, the four Quarter Days, the coronation of Charles I, and search days. They spent £34 on the Lord Mayor's Day alone.⁹³ The rhythm of the Carpenters' year was the same: meals on Quarter Days, elections, audits and the Lord Mayor's Day.⁹⁴ The Founders', too, echoed this, with the

⁸⁹ Zahedieh, *Capital*.

⁹⁰ Archer, *Pursuit*; Ian W. Archer, 'The London Lobbies in the Later Sixteenth Century', *Historical Journal*, 31 (1988); Ward, *Community*; Ian Anders Gadd, and Patrick Wallis, 'Reaching Beyond the City Wall: London Guilds and National Regulation, 1500-1700', in S. R. Epstein and M. R. Prak (ed.) *Guilds, Innovation, and the European Economy, 1400-1800* (Cambridge, 2008).

⁹¹ Sarah A. Milne, *The Dinner Book of the London Drapers' Company, 1564-1602, London Record Society, Volume LIII* (Woodbridge, Suffolk, 2019), xxvi-xliii; Jasmine Kilburn-Toppin, 'Gifting Cultures and Artisanal Guilds in Sixteenth- and Early Seventeenth-Century London', *The Historical Journal*, 60 (2017), 875-80. Accounts only provide a partial indication: costs of dinners were often born in part by attendees or nominated members; for example, stewards provided the dinner on Lord Mayor's Day and members paid 2s 6d: Society of Apothecaries, Court Minutes MS8200/1, 282, 354r.

⁹² LMA, CLC/L/GH/D/001/MS11571/11, ff. 29r, 35r.

⁹³ LMA, CLC/L/CI/D/001/MS05606/003, ff. 272r-277v

⁹⁴ *Records of the Carpenters company*, volume 5, pp. 127-140; LMA, CLC/L/CC/D/002/MS04326/007, ff. 149r-152v (1627-8); LMA, CLC/L/CC/D/002/MS04326/011, f. 71v-72r (1680-81).

addition of a search dinner at Bartholomew Fair and Southwark Fair; they held much the same array of dinners in 1580 as they would a century later in 1680.⁹⁵

Arguably, London's guilds never lost this festive side, serving as dining clubs for the city elite to this day. Yet attending guild dinners and processions no longer gave birth to strong social connections in the way that it had in the late medieval city. This suggests that it was not so much the shared occupational identity or brotherly sociability that fostered ties between guild members, but rather the community that was formed through participating in the pre-Reformation religious activities of the guild as a confraternity. The Reformation radically pared back prayer and shared worship; it also led to fragmentation between Protestant religious communities within London.⁹⁶ That this might have weakened the guilds in some fundamental way aligns with evidence elsewhere of the significance of religion to guild community. For example, in Aix en Provence, it was those occupations with a strong confraternity that possessed close connections between members.⁹⁷ In the Southern Netherlands, similarly, religious change and economic polarization in the sixteenth century similarly conspired to dissipate the 'sense of brotherhood' within guilds.⁹⁸

What of a third potential explanation: did shifts in the cost of capital matter as the city's financial system matured, as Schnitzeler observes in the Netherlands?⁹⁹ Orphans' estates were a source of capital, and some of the appeal of acting as a surety must have fallen as the general cost of borrowing declined over the sixteenth and seventeenth century.¹⁰⁰ When we look at estates of different value, however, there is no substantial difference between them in the structure of networks over time, as we might expect if the relative ease of access to capital was influencing

⁹⁵ LMA, CLC/L/FG/D/001/MS06330/2, 202, 405.

⁹⁶ Brigden, *London*, 35-36, 389-90; R. A. Leeson, *Travelling Brothers: The Six Centuries' Road from Craft Fellowship to Trade Unionism* (London, 1979), 50-51. There is some evidence of Baptists and puritans serving together as sureties

⁹⁷ Dolan, 'Artisans', 181-5.

⁹⁸ Bert De Munck, *Guilds, Labour and the Urban Body Politic* (London, 2017), 26

⁹⁹ Schnitzeler, 'Financial', 86-9, 123-130.

¹⁰⁰ This did lead to suggestions that finding money should be lowered: LMA, 8 May 1627 COL/CA/01/01/045 f. 218-9. See also: Sussman, 'Financial Developments'.

sureties' motivation. Similarly, the length of time that funds would be held for does not affect the network meaningfully.¹⁰¹

As we mentioned earlier, we cannot be sure that these networks reflect developments across the city. Recognizances relied on the well off, which made it more likely that family had the capacity to help, as Laslett emphasised.¹⁰² Indeed, Shoemaker's analysis of sureties called upon by a much poorer section of London's population who were being prosecuted for misdemeanours in the early eighteenth century suggests that family was less important (or less often permitted) to them. However, occupational ties were limited (just 15% of sureties were in the same trade as each other) and shared place had a similar significance, linking 55% of sureties, pointing at important commonalities in the foundations of social networks with those we observe in the Orphans' Court.¹⁰³ More work would be needed to confirm that this holds for earlier periods.

Conclusion

The foundations of trusting relationships between Londoners changes markedly over the three centuries from the Black Death to the Restoration. As figure 5 shows, guilds fell away after the early sixteenth century, becoming almost meaningless by the seventeenth century even as the city sprawled. In the language of social capital, the denseness of ties generated within London's guilds lessened over time. Family – both by blood and marriage – grew more important over time. We might see here an anticipation of the role of kin ties in eighteenth-century middle-class enterprise, signalled by cousin-marriage among other things.¹⁰⁴ Neighbourhood was closely associated with trusted connections, though unfortunately we cannot observe its

¹⁰¹ See Appendix 4 for detailed results by size of estate and term.

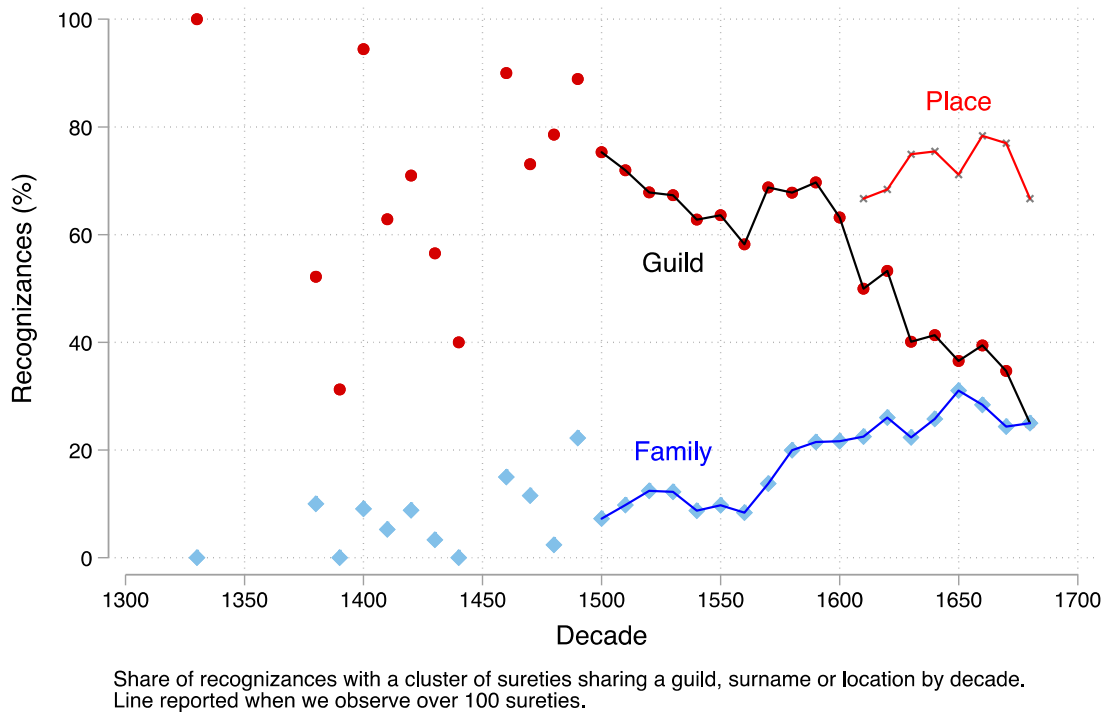
¹⁰² Peter Laslett, 'Family, kinship and collectivity as systems of support in pre-industrial Europe: a consideration of the 'nuclear-hardship' hypothesis', *Continuity and Change* 3(2) (1988), 161-3.

¹⁰³ Shoemaker measures kinship ties between the person bound and their sureties, while occupation and place are for pairs of sureties: Shoemaker, *Prosecution*, 107-8; R. B. Shoemaker, "Crime, courts and community: the prosecution of misdemeanors in Middlesex County, 1663-1723" (Stanford University PhD thesis, 1985), p. 158, table 12. Note that Shoemaker interprets his parish results as evidence of weak connection (*Prosecution*, p. 108). Our thanks to Professor Shoemaker for sharing his work.

¹⁰⁴ Also in powers of attorney in France: Eloire et al, 'Personal-anonymous', pp. 1238-40.

importance over time. In short, the character of urban society did not evolve in a way that can be easily reconciled with any of the classical modernization narratives.

Figure 5: Sources of Connection in London



The chronology of these developments suggests to us that the Reformation and rapid growth of the city were responsible for the changes we observe, drawing a sharp distinction between the medieval and early modern city. The extent to which these developments were the result of kinship substituting for an enfeebled corporatism or being embraced in preference as family members became available in the city is hard to evaluate. However, the former was certainly important. Our estimates of all kinship connections – with and without surname matches - suggest that even in the 1650s relatives still only account for around a third of sureties. Much space remained for guild members to work together, if they had the inclination. That they did not indicates that something fundamental had changed in the nature of guild communities, not just in the supply or significance of kinship in urban society, suggesting a major shift in their contribution to forming social

capital in urban communities.¹⁰⁵ As Rosser concludes, ‘the guild was not a stable institutional type, but was a variable and more or less heterogenous grouping which could provide a legitimizing frame for diverse activities’ – or not, we might add.¹⁰⁶

The rise of kinship and decline of guilds’ influence indicates that fundamental changes occurred in the social fabric of the city over the sixteenth and seventeenth centuries. Implicitly, London’s citizens were no longer seeing their guild community as a coherent social space that could offer reassurance about reputation and encourage compliance with commitments, as they had in the fourteenth and fifteenth centuries. As Dasgupta suggested, ‘trust is based on reputation and that reputation has ultimately to be acquired through behaviour over time in well-understood circumstances’.¹⁰⁷ If we follow Guinnane’s critique, this implies that the channels of information and enforcement that sustain our ‘trust’ in one another had been transformed.¹⁰⁸ While we can only speculate about exactly how guild membership shaped reputation in the earlier period, we can be confident that it no longer performed the same role in the seventeenth century. Whether this loss of institutional context in part generated the ‘explosion of debt litigation’ that Muldrew observed occurring as ‘trust became harder to maintain’ is one possibility worth considering.¹⁰⁹

¹⁰⁵ Ogilvie, ‘Social Capital’; Leonardi and Putnam, *Democracy*.

¹⁰⁶ Rosser, *Art*, 152.

¹⁰⁷ P. Dasgupta, ‘Trust as a commodity’, in Diego Gambetta (ed.), *Trust: making and breaking cooperative relations* (Oxford, 1988), 53.

¹⁰⁸ Timothy W. Guinnane, ‘Trust: A Concept Too Many’, *Jahrbuch für Wirtschaftsgeschichte*, 46 (2005), 77-92.

¹⁰⁹ Muldrew, *Economy*, 7.

Appendices

(note: these will be available via a working paper or as online only)

Appendix 1: Ties between sureties and the deceased

Our analysis in the paper concentrates on connections between living sureties, who share the joint liability for the orphans' inheritances. We might also envisage that sureties could be called upon to act because of a connection to the deceased father of the orphans. We discuss connections between the deceased and sureties through guild and kinship in the main paper, as this is an important complement and source of the relationships we observe there. In this appendix, we extend this discussion, by repeating our main measures to illustrate how connections in this form changed.

Guilds

Guild links between deceased and sureties were not uncommon. As table A1 shows, one in five sureties were from the same guild as the deceased, far more than if guilds did not matter. Overall, 41 per cent of recognizances included one surety from the same guild as the deceased. Taken at the level of the estate, which might include multiple recognizances, 51 per cent recruited at least one surety from the deceased's guild. Note, however, that there is some likely over-estimation of the significance of the guild here, as some deceased had relatives in their guild: sons of London guild members might enter their father's guild by right of inheritance (patrimony).

Table A.1: Connections between deceased and sureties

	Surety from same guild as deceased		Deceased guild matches to 1+ surety in recognizance		Deceased guild matches to 1+ surety in estate	
	%	N	%	N	%	N
1300	0	2	0	1	0	1
1350	20	113	41	32	41.94	31
1400	29	423	46	110	48.94	94
1450	34	303	57	77	57.35	68
1500	26	4,342	51	1,439	57	760
1550	19	14,630	39	6,010	56	1,873
1600	17	11,222	41	5,205	49	2,085
1650	14	4,368	38	1,542	41	885
Total	19	35,403	41	14,416	51	5,797

As with the surety networks, the frequency of guild connections between sureties and the deceased fell, from a high of 34 per cent of sureties drawn from the same

guild in the last half of the fifteenth century to a low of 14 per cent in the first half of the seventeenth century, reinforcing the evidence of decline apparent from the surety networks.

We can examine the importance of clusters of sureties who were drawn from the same guild as the deceased in the same framework that we used for clustering among living sureties. Table A.2 mirrors table 2 in the main paper, and identifies the share of recognizances in which sureties were all drawn from the same guild as the deceased (homogenous), the share in which some were from the same guild, and the share in which none were from the same guild as the deceased (heterogenous). As one would expect, the levels are lower than in the analysis of clustering among sureties. There is a clear decline in the share of recognizances in which the sureties are homogenous, as we would expect. Interestingly, a growing proportion of the remaining recognizances with homogenous sureties are cases where the guild also matches that of the deceased. An important difference to the main analysis is that a roughly constant 54 to 61 per cent of recognizances never included a link to the deceased, where the share without a guild cluster between living sureties changes markedly over the same period, suggesting that it is these connections that are more meaningful overall.

To the extent that it is ties formed by the guild between the deceased and the surety that mattered, the importance of association dwindled substantially between the fifteenth and the seventeenth centuries.

Table A.2: Guild connections among sureties from the same guild as the deceased

Period	Homogenous (%)	Some clustering (%)	Heterogenous (%)	Total (%)	N
1300	0	0	100	100	8
1350	9	19	72	100	53
1400	21	19	60	100	137
1450	12	33	55	100	97
1500	10	37	54	100	1588
1550	9	30	61	100	6111
1600	7	36	57	100	5209
1650	5	35	61	100	1545

Kinship

We are able to extend this to evaluate the presence of family members of the deceased, based on surname matches. We discuss this briefly in the main paper. The importance of widows as executors complicates this as they, by definition, have the same surname as their deceased husband unless they remarry. In table A.3 we report the share of sureties with the same surname as the deceased for all sureties, and for sureties excluding widows, as in the main paper, by half century, rather

than century. We also report the share of recognizances with a surety with the same surname as the deceased including and excluding widows, by half century.

Table A.3 Kinship ties between deceased and sureties

Period	Surety		Recognizance		N
	All (%)	Exc Widows (%)	All (%)	Exc Widows (%)	
1300	3	0	13	0	34
1350	5	3	15	8	181
1400	5	4	19	16	531
1450	6	4	20	13	383
1500	7	2	23	7	4,811
1550	7	3	20	8	14,861
1600	14	7	37	17	11,235
1650	20	9	55	24	4,377
Total	11	5	30	13	36,413

The share of kinship ties moves in the same way whether widows are counted in the kinship measure or not.

Because surnames are a limited indicator of kinship, as discussed in the main paper, we do not use the same clustering analysis as for guilds, instead reporting the share of recognizances with any surname match to the deceased. We repeat it here for completeness. As can be seen, almost no recognizances are entirely drawn from sureties with the same surname as the deceased. However, an increasing share have at least one surety with the deceased's surname, and recognizances without any kinship connection to the deceased decline substantially. The analysis includes – and is to a large extent driven by – the increasing role of widows as executors.

Table A.4 Deceased's kin clustering in recognizances

	Homogenous (%)	Some clustering (%)	Heterogenous (%)	Total (%)	N
1300	0	13	88	100	8
1350	0	15	85	100	53
1400	1	18	82	100	137
1450	0	20	80	100	97
1500	0	23	77	100	1588
1550	0	20	80	100	6111
1600	3	33	63	100	5209
1650	3	53	45	100	1545

Place

Finally, we discuss whether sureties lived in the same place, or nearby, the deceased. As we see in general, here the evidence suggests that neighbourhood sureties often came from the same places in London as the deceased. In table A5 we summarize the distribution of sureties based on the straight-line distance from their address and that of the deceased. The top row includes all sureties, and we then exclude first widows and then people with the same name to reduce the effect of including sureties who had been living with the deceased as part of their family. Around half of sureties on all specifications lived within 500m of the deceased, and one in five sureties in the final sample excluding widow and kin lived within 100m of the surety. Neighbourly ties to the deceased may have helped recruit sureties, as well as providing relationships between them.

Table A.5. Distance between deceased and surety locations

	mean (m)	<100	100- 499	500- 999	1000- 1999	>2000	N
All	805	28	25	20	17	10	1716
Excluding Widows	829	21	28	21	19	10	1480
Excluding Widows & Kin	849	20	28	22	19	10	1382

Appendix 2: Overlapping Ties between Sureties

Relationships between people are not always rooted in a single cause. Indeed, social capital is often thought to result from multiplex connections between people. To examine the presence of multiple lines of connection between sureties we examined the potential for matches by guild and kin between all possible pairs of sureties in the recognizances.

Table A2.1 reports the share of surety pairs who match by guild and surname, guild, and surname in the first three columns. The final two columns report the share of pairs with a guild connection that also have a surname match, and the share of pairs with a surname match that also have a guild match.

As can be seen, family ties indicated by a common surname only account for a small share – 12 per cent – of guild matches between sureties even at the point where this is most, in the 1650-86 period. For the earlier periods, when guild connections are more common, surname matches may explain a trivial share. The reverse is not the same, but the priority of kinship over other sources of connection suggests we need not revise our analysis because a large share of kinship connections are between members of the same guild.

Table A2.1: Overlap between guild and kinship

	Guild & Name	Guild only	Kin only		Share in overlap	
					Guild	Name
	%	%	%	N	%	%
1300	0.0	7.7	0.0	13	0.0	-
1350	0.0	22.8	0.0	114	0.0	-
1400	0.3	31.8	0.3	346	0.9	100.0
1450	0.4	50.7	0.4	282	0.7	100.0
1500	0.7	34.4	1.6	3,919	2.1	45.2
1550	1.3	34.6	2.9	12,513	3.7	45.1
1600	1.3	19.9	5.0	12,453	6.3	25.1
1650	1.2	10.4	7.1	5,971	11.9	17.4
Total	1.2	25.4	4.2	35,611	4.6	28.5

Note: the table reports the share of surety pairs with a guild and name match, guild match, name match in cols 1-3. Column 5 is the share of guild matches (col 2) that may be explained by guild and name matches (col1), expressed as a percentage.

Location is only reported for the seventeenth century. For that period, however, we can explore the share of surety pairs that may have been linked by overlapping ties of neighbourhood, guild and kin. We treat sureties living within 500m of each other as sharing a neighbourhood. As table A2.2 shows, the share of surety pairs with either a guild and place or kin and place overlap was small throughout the period. And less than one percent of surety pairs were connected in all three ways. Tight-knit clusters who share family, guild and place are rare.

Neighbourhood connections are common, as we note above, so we would expect that a substantial share of sureties have overlapping sources of connection. By this point, only a small share of sureties share a guild. Strikingly, neighbourhood may explain only around a third of guild connections, even though co-location is common among people in similar trades. Neighbourhood is even more common among kin, with 60 percent sharing a neighbourhood. The final two columns show that only a small share of guild or kin are explained by a three-way connection by place and the other source of tie.

Table A2.2: Overlap between Guild, Kin and Place matches

	Guild & Place	Kin & Place	Guild, Kin & Place	N	Overlap with Place		Overlap with Place & Kin	Overlap with Place & Guild
					Guild	Kin	Guild	Kin
	%	%	%		%	%	%	%
1600	6.5	3.4	0.7	12,453	32.8	67.2	3.7	14.9
1650	4.8	3.5	0.7	5,971	45.8	48.6	6.5	9.5
Total	5.6	3.4	0.7	18,424	33.4	59.9	4.2	12.4

Note: the table reports the share of surety pairs with a guild and name match; kin and place match; guild, name and place match in cols 1-3. Column 5 is the share of guild matches (col 2) that may be explained by guild and place matches (col 1), expressed as a percentage. Column 6 repeats that for kin matches. Column 7 reports the share of guild matches explained by place and kin (col 3). Column 8 repeats that for kin matches.

Appendix 3: Structured Networks

Our main analysis focuses on the connections between all sureties within a recognizance, reflecting the joint and several liability that each undertook. However, recognizances were most probably organized by a central individual who could recruit the other sureties to join them in guaranteeing the orphans' estate. The records do not report which surety held this central role, however there are several potential indicators that we can use to identify the most likely central surety. In this appendix, we utilize these indicators to examine the pattern of connections between sureties if we measure only the relationship between the central person and the other sureties in each recognizance, treating the network as one organized with a central node and unrelated edges.

The indicators of centrality that we use are: (1) the executor/administrator of the estate, where they acted as a surety; (2) the first listed surety of each estate, as reported in the records; (3) a combined indicator with the executor/administrator if included or the first listed surety where they were not.

The process is slightly complicated by the nature of the record, as the deaths of executors and administrators means that for a minority of cases we find multiple sureties with more complex roles, such as the executor of an executor (and sometimes the executor of the executor's executor...) acting in a single estate, making it hard to identify who was organising a specific recognizance network. In those cases, we focus on the original executor where one is uniquely identifiable in the record.

This approach to identifying the central individual is based on information about estates. For larger inheritances, some recognizances do not include either the executor or the first surety. The city's rules at times would have served to prevent this, by reducing the amount any individual could hold. In practice, the effect of this on our second and third indicators is limited, and the central person they identify appears in around 97 percent of the recognizances drawn up in during the first distribution of the estate (the share falls if we look at later recognizances that reorganize the funds in light of the marriage, bankruptcy or death of a surety). However, our first indicator, executors, are less likely to be included in recognizances early on, with only 24% of sixteenth century recognizances including the executor as a surety, rising to 63% in the seventeenth century. Therefore, in the final section of this appendix, for completeness, we also examine centrality based on the senior surety in each individual recognizance network, based on the order of their appearance in the list of sureties in that recognizance.

Table A3.1 Number of Estates with identifiable lead member

	Executor/admin	First Surety	Exec or First surety in estate
cent			
1300	0	58	58
1400	0	202	202
1500	744	2,906	2,887
1600	2,085	3,178	3,148
Total	2,829	6,344	6,295

As table A3.1 shows, the amount of information available for each of these indicators changes over the period covered. Information on executors only becomes abundant in the sixteenth century, in particular. Our other main proxy, the first listed surety, is abundant throughout.

For each of these indicators, we report three sets of summary statistics that mirror those in the main paper.

Share of sureties linked to 'lead' surety by type of connection

Table A3.2a-c reports the share of sureties in each estate with three kinds of connection to the lead surety (executor). The right-hand columns report the number of surety pairs for which this can be calculated by category. Note that the number of observations using indicator 1 (executor) is low initially, and we see few guild connections because a large number of executors are widows who are not members of guilds.

Table A3.2: Connections between executor & other sureties

a. Centrality indicator 1: executor

	Mean			N		
	Guild	Kinship	Neighbourhood	Guild	Kinship	Neighbourhood
1500-49	0.33	0	.	9	18	-
1550-99	0.34	0.05	.	429	2,057	-
1600-49	0.25	0.1	0.5	657	3,136	947
1650-99	0.25	0.11	0.45	393	1,917	1,176
Total	0.27	0.09	0	1,488	7,128	2,123

b. Centrality indicator 2: lead surety

	Mean			N		
	Guild	Kinship	Neighbourhood	Guild	Kinship	Neighbourhood
1300-49	1	0	.	2	26	-
1350-99	0.35	0.02	.	51	125	-
1400-49	0.56	0.01	.	176	344	-

1450-99	0.59	0.03	.	185	253	-
1500-49	0.39	0.03	1	1,787	2,527	3
1550-99	0.31	0.05	.	3,739	5,784	-
1600-49	0.25	0.09	0.49	2,164	4,908	1,378
1650-99	0.19	0.1	0.43	842	2,495	1,521
Total	0.31	0.07	0.46	8,946	16,462	2,902

c. Centrality indicator 3:

mean			N		
Guild	Surname	Neighbourhood	Guild	Surname	Neighbourhood
1300-49	1	0	2	26	-
1350-99	0.35	0.02	51	125	-
1400-49	0.56	0.01	176	344	-
1450-99	0.59	0.03	185	253	-
1500-49	0.39	0.03	1	1,781	2,521
1550-99	0.31	0.05	3,483	5,555	-
1600-49	0.25	0.09	0.48	1,953	4,666
1650-99	0.19	0.1	0.43	789	2,431
Total	0.31	0.07	0.46	8,420	15,921

Note: the table reports the proportion of sureties with a matched guild or surname or address within 500m of the ‘lead’ surety in their recognizance in cols 1-3.

The trends over time align with those we observed among sureties as a whole, with guilds declining over the period and kinship rising. The level of common guild membership is higher on the first measure, executors, where we observe the smallest share of networks, but even then the great majority of lead sureties who were guild members found the other members of the networks that they built outside their guild.

The statistic on guild connections reported in A.3.2 is not the same as that used in the main paper because our standard approach to networks does not prioritize a single guild, and so we cannot estimate a simple proportion of sureties who are connected by common guild membership in the same way.

For that reason, we have reproduced the measure of homogeneity within each recognizance to allow a direct comparison to be made. In this version, homogenous means that all sureties are members of the ‘lead’ surety’s guild, heterogenous means that none are, and intermediate means that at least one other surety (but not all) are members of the ‘lead’s’ guild.

Table A.3.3: Guild connections among sureties in recognizances

<i>a. Centrality measure 1</i>				
	homogenous %	intermediate %	heterogenous %	N
1500-49	0	67	33	12
1550-99	13	46	41	584
1600-49	10	37	54	952
1650-99	9	37	54	586
Total	10	39	50	2,134
<i>b. Centrality measure 2</i>				
	homogenous %	intermediate %	heterogenous %	N
1300-49	100	0	0	4
1350-99	21	14	65	99
1400-49	37	37	26	273
1450-99	34	48	18	256
1500-49	18	43	38	2,447
1550-99	11	42	47	5,122
1600-49	9	36	56	3,194
1650-99	6	29	64	1,294
Total	12	39	49	14,593
<i>c. Centrality measure 3:</i>				
	homogenous %	intermediate %	heterogenous %	N
1300-49	100	0	0	4
1350-99	21	14	65	99
1400-49	37	37	26	273
1450-99	34	48	18	256
1500-49	18	43	38	2,439
1550-99	11	42	46	4,774
1600-49	9	35	56	2,905
1650-99	6	28	66	1,205
Total	13	39	48	11,955

As can be seen, there is essentially no difference on this measure. Nor should there be, as by definition, the trend in ‘homogenous’ guild membership is identical. We see a slightly higher share of ‘heterogenous’ networks, as this measure discounts matches between sureties other than the ‘lead’. However, this has no meaningful effect on the trend or level, as we would anticipate given the small number of individuals in each network.

Finally, what about trends in kinship using this measure of centrality? The main indicator is the growing share in table A.3.2, above, but for completeness we reproduce the recognizance-level evidence on surname clusters given in the main

paper. Table A.3.4 reports the share of recognizances in which one or more and two or more other sureties have the same surname. As can be seen the level and trend are similar to our main results. Kinship is growing, but still cannot fill the space left by the guilds.

Table A.3.4: Kinship clusters in recognizances

<i>a. Centrality measure 1</i>			
	1+sureties with same surname as lead	2+ sureties with same surname as lead	N
1500-99	0.12	0.01	2,759
1600-99	0.22	0.05	7,030
Total	0.20	0.04	9,789
<i>b. Centrality measure 2</i>			
	1+sureties with same surname as lead	2+ sureties with same surname as lead	N
1300-99	0.03	0.00	209
1400-99	0.05	0.01	807
1500-99	0.12	0.01	11,208
1600-99	0.20	0.04	10,539
Total	0.15	0.03	22,763
<i>c. Centrality measure 3</i>			
	1+sureties with same surname as lead	2+ sureties with same surname as lead	N
1300-99	0.03	0.00	209
1400-99	0.05	0.01	807
1500-99	0.12	0.01	10,899
1600-99	0.20	0.04	10,114
Total	0.15	0.03	22,029

Recognizance level 'lead'

As noted, our indicators to this point identify a single 'lead' per estate. We can also identify the 'lead' surety within each recognizance, based on the order of sureties given in each.

The panels in table A.3.5 repeat each of the analysis just set out, with a 'central' surety identified in each network. As can be seen, this approach has meaningful effect on the trend or level, relative to the estate level results using indicator 2 and 3 above.

Table A.3.5: Recognizance 'lead' surety analysis

a. Connections between executor & other sureties						
	Mean			N		
	Guild	Kinship	Neighbourhood	Guild	Kinship	Neighbourhood
1300-49	1	0	.	2	26	0
1350-99	0.38	0.02	.	53	127	0
1400-49	0.56	0.01	.	176	344	0
1450-99	0.59	0.03	.	185	253	0
1500-49	0.39	0.03	1	1877	2623	3
1550-99	0.31	0.05	1	3950	6016	1
1600-49	0.25	0.09	0.49	2217	4975	1385
1650-99	0.19	0.1	0.43	844	2500	1524
Total	0.31	0.07	0.46	9304	16864	2913

b. Guild connections among sureties in recognizances					
	homogenous	intermediate	heterogenous	N	
	%	%	%		
1300-49	100	0	0	4	
1350-99	24	14	63	102	
1400-49	37	37	26	273	
1450-99	34	48	18	256	
1500-49	18	44	38	2,569	
1550-99	11	43	46	5,411	
1600-49	9	36	56	3,272	
1650-99	6	29	64	1,297	
Total	13	40	48	13,184	

c. Kinship clusters in recognizances			
	1+sureties with same surname as lead	2+ sureties with same surname as lead	N
1300-99	0.03	0.00	212
1400-99	0.05	0.01	807
1500-99	0.12	0.01	11,656
1600-99	0.20	0.04	10,664
Total	0.15	0.03	23,339

Appendix 4: Conditional Differences between Networks

Our main analysis treats all estates as equivalent. We might, however, imagine that practices could differ between families based on the circumstances of the estate, and that sureties might have approached estates differently if the amount of capital available was different. For example, where the deceased leaves a small estate, plausibly families might invest particular attention to preserving the more limited inheritances of the orphans. Alternatively, the executors of poorer deceased might have fewer extended relations to draw upon, or find the recognizances were less attractive to those seeking access to capital. We might also envisage a situation in which estates were administered differently if the orphans were young and arrangements needed to last for many years, than if the heirs were nearly of age.

In this appendix, we explore both possibilities to identify if they may deviate from the general characteristics we observe in the main analysis.

Estate size and network structure

In order to examine the first possibility, we divided the sample into small and large estates, assigning the 24 percent of estates with a total value of below £50 in constant 1600 pounds to the former category. We consider the way this affects kinship connections specifically.

As table A4.1 shows, larger estates were more likely to have a cluster of kin among the sureties and to have a surety with the same surname as the deceased, suggesting that larger extended families was associated with greater wealth.¹¹⁰ The difference between estates does not affect the shift in the use of kin connections over time, though. Nor do the levels differ to a degree that challenges the overall picture of relatively low presence of kin within networks until the seventeenth century.

¹¹⁰ The relationship is strongly correlated at standard levels of significance.

Table A.4.1: Kinship connections and the size of estates

	Large Estate (%)	Small Estate (%)	All (%)
1400-99			
Surety kinship cluster	8.1	0.0	7.0
Deceased-surety match	14.1	6.7	13.2
N	99	15	114
1500-99			
Surety kinship cluster	13.0	8.1	11.8
Deceased-surety match	10.5	8.6	10.0
N	2,316	744	3,060
1600-99			
Surety kinship cluster	20.9	12.2	18.7
Deceased-surety match	22.3	13.5	20.1
N	2,345	781	3,126
All			
Surety kinship cluster	16.7	10.1	15.1
Deceased-surety match	16.4	11.0	15.1
N	4,778	1,542	6,320

Note: widows are excluded from the calculation of matches between sureties and the deceased.

Contract Duration and Network Structure

What about the length of time that orphan's inheritances had to be secured for? In order to examine this, we look at the length of time from the earliest record of the deceased's estate in the City's records to the last date recorded when an orphan appeared and acknowledged they had been paid: formally, this was the 'Satisfaction'. This offers a reasonable proxy for the duration that would have been predicted when the orphans' funds were put into recognizances, although the actual duration might have been shorter if death or marriage came early.

We observe the duration for just over 6,000 estates, as not all have complete records, and there is some suggestion that not all orphans registered their satisfaction, even when the money was passed to them successfully. The average duration was 12 years, with 10 percent lasting below 2 years and 61 percent lasting over 10 years.

In table A.4.2 we report kinship ties by surname for duration, subdividing this into short, intermediate and longer contracts. We see the expected rise in kinship over the sixteenth and seventeenth century. There is no strong relationship between the presence of family and the length of the agreement that would lead us to revise our overall conclusion. Interestingly, but inexplicably, intermediate contracts were more likely to involve kin than either short or long.

Table A.4.2 Duration and Kinship

	Short (<2 yr) (%)	Intermed (2-10 yr) (%)	Long (11+yr) (%)	All (%)
1400-99				
Surety kinship cluster	0.0	25.0	33.3	28.6
Deceased-surety match	0.0	25.0	33.3	28.6
N	0	4	3	7
1500-99				
Surety kinship cluster	8.3	13.2	11.4	11.6
Deceased-surety match	9.1	14.1	8.5	10.0
N	254	846	2,010	3,110
1600-99				
Surety kinship cluster	17.4	20.0	17.1	18.0
Deceased-surety match	20.2	26.6	16.8	20.1
N	409	979	1,892	3,280
All				
Surety kinship cluster	13.9	16.9	14.2	14.9
Deceased-surety match	15.9	20.7	12.5	15.2
N	663	1,829	3,905	6,397

If we examine whether guild connections vary between estates with different durations, contract duration seems again to have no impact. In table A4.3, we report the average guild diversity score – our measure of the heterogeneity of guilds within each recognizance network – and the average share of networks in which there is at least one surety from the same guild as the deceased father for recognizances using the same three duration periods as above. There is no substantial difference between networks of different duration on any of the measures.

Table A.4.3 Duration and Guild Membership

	Short (<2 yr) (%)	Intermed (2-10 yr) (%)	Long (11+yr) (%)	All (%)
1400-99				
Diversity	0.0	60.0	36.1	49.8
Any deceased-surety guild match	0.0	50.0	100.0	75.0
N	0	4	3	7
1500-99				
Diversity	74.9	74.0	73.8	73.9
Any deceased-surety guild match	48.3	47.4	46.9	47.2
N	245	826	1,984	3,055
1600-99				
Diversity	85.5	83.3	83.8	83.8
Any deceased-surety guild match	34.2	42.0	35.5	37.3
N	297	790	1,536	2,623
All				
Diversity	80.7	78.5	78.1	78.5
Any deceased-surety guild match	39.4	44.5	41.4	42.0
N	542	1,620	3,523	5,685

Finally, what about neighbourhood? We lack a really effective summary statistic to capture the distance within our networks, but we can usefully look at the share including a surety from outside London.

As table A4.4 shows, it does seem that recognizances that were expected to run for shorter periods were more likely to include sureties from the provinces. Whether this reflects the executor's strategy, a preference on the part of the city (notionally sureties have to appear annually to prove they were solvent and alive), or is chance, is hard to say. The overall difference is noticeable, but not large enough to question the importance of neighbourhood overall.

Table A.4.4: Share of Recognizances including a Surety from outside London

	%	N
Duration		
Short (<2 yr)	0.106	663
Intermed (2-10 yr)	0.051	1,829
Long (11+yr)	0.045	3,905
Total	0.053	6,397

Appendix 5: Court Rules and Kinship Rates

Did the Orphans' Court policies on protecting inheritances affect the kinship rates we observe? The Court's rules for managing estates shifted over time. For much of the sixteenth century, rules limiting the amount held by any one individual to £100 set in 1535 were enforced. Combined with the limit of £300 in a single recognizance, this meant the inheritance needed to be spread over a larger number of recognizances with different sureties than in the seventeenth century, when the rule appears to have been allowed to lapse quietly. Because family size and structure were broadly constant, so far as we can tell, this could have mechanically increased the number of sureties from outside the family that needed to be recruited into recognizances in the sixteenth century.

In practice, most estates were below the £300 threshold that would lead this to have an effect by forcing the money to be divided over multiple recognizances: in the whole period, 83 percent were under £300. Where the rule had effect in the sixteenth century, 90 percent were below the £300 threshold. If we look at the number of recognizances used for each estate, 92 percent were secured with a single one overall, with 89 percent in the sixteenth century.

To evaluate whether this concern affects the developments in kinship that we observe, we recalculated our estimates of kinship connections based on surnames for large estates that utilized more than one recognizance. If increasing the pool of sureties involved to meet the Court's rules artificially lowered the role of kin, this should be visible in the share of sureties with matches to the deceased or to each other.

Table A5.1: Kinship by common surname in estates with multiple recognizances

Sureties with				Recognizances containing		
Same surname as deceased	Same surname as another surety			1+ sureties with same surname as deceased	2+ sureties sharing a surname	
%	%	N		%	%	N
Estates with two or more recognizances						
1300-99	0	0	6	0	0	2
1400-99	0	0	-	0	0	0
1500-99	4	11	1,287	14	19	340
1600-	13	20	704	28	27	243
All	7	14	1,997	20	22	585
Estates with three or more recognizances						
1300-99	0	0	-	0	0	0
1400-99	0	0	-	0	0	0
1500-99	7	13	543	23	24	142
1600-	15	34	100	35	48	31
All	8	17	643	25	28	173

Note: count of sureties with surname matches excludes widows in cols 1 and 4. Sureties whose name matches that of a widow acting as a surety are counted as a match in col 2 and a cluster in 5.

Table A5.1 replicates table 4 in the main text but for large estates split over two or more or three or more recognizances. Few estates recorded before 1500 have more than one recognizance associated with them. From 1600, a substantial number were divided.

For larger estates, kinship rates in the sixteenth century are in fact *higher* on all measures than in the overall sample. Larger estates using more recognizances were more likely to be secured by kin in the sixteenth century, despite the Court's rules requiring funds to be secured by a larger number of separate sureties. There is also no difference in the trends over time in larger estates secured across multiple recognizances. The Court's rules did not mechanically produce the rise in kinship that we observe in the city.