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EXECUTIVE SUMMARY

Europe's historical citizenship regimes limited economic citizenship to specific groups. As in modern national citizenship regimes, those outsiders who sought to access economic rights needed to meet various criteria. In this paper, we evaluate how often individuals who had begun the process of qualification for economic citizenship failed to complete it. Our focus is on qualification by apprenticeship. This process generated human capital alongside rights. However, as we show for a range of cities, large numbers of youths entering apprenticeship contracts failed to complete them. We consider the nature, frequency and, to the extent that it is possible, the causation of these failures. Our results point to the value of failure as a way to maintain flexibility within labour markets Local, urban citizenship regimes preferred pragmatic responses to labour market tensions to rent seeking.

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1. INTRODUCTION

Workpackage 3 explores historical citizenship regimes in Europe with two aims: to evaluate the teleological argument that implies that the move from local to national citizenship regimes was a shift towards a more equitable and efficient political arrangement; and to explore the potential of alternative citizenship regimes, centred on localities, as sources of solutions to some of the challenges facing European citizenship today. Localization of citizenship has been proposed as a potential way to overcome problems with citizenship as currently conceptualized in some current discussions. By far the largest source of information on the practice and perils of this localized approach lay in the past, when citizenship was generally organized on an urban scale.

It is important when using the past as a source of ideas and concepts that we understand their meaning and impact in their original context. This is particularly the case when thinking about citizenship. Traditional perceptions of pre-modern urban citizenship regimes usually regarded them as insular, rent-seeking burdens on economy, society and polity.[1] In this analysis, they are a conspiracy against the public. Privileged citizenries and guild members secured their own advantage over the common good. What use, then, would ideas drawn from such a pernicious institution be today? Who would be foolish enough to recreate these venal islands of archaic corruption?

A key concern of the work being carried out in this workpackage is to re-evaluate this hostile 'standard' account. In doing so, we are building on recent research that has cast several of its elements into doubt.[2] As we have demonstrated in other parts of this project, premodern citizenship regimes were broader and more inclusive than has previously been understood.[3] They encompasses a large share of urban populations. Their full members (citizens, masters) were largely outsiders – either migrants or locals without a claim by inheritance – not insiders such as the children of existing citizens. The fees and service periods they demanded from new members were mostly modest barriers to entry, and only rarely created a substantial constraint on access. To be sure, citizenship did exclude and marginalize some groups. Notably, most systems of local citizenship were biased against or entirely barred women. In this they mirrored wider contemporary norms that were equally apparent in formal national structures and informal customs. Compared to national citizenship regimes in the mid nineteenth and early twentieth centuries, local citizenship and guild systems were often more inclusive, when measured by the share of the population possessing political rights.[4]

In this working paper we take a further step in this research agenda, by evaluating failures to qualify for citizenship. We consider the nature, frequency and, to the extent that it is possible, the causation of these failures in a sample of cities in England, France and the Netherlands[5] – it is important to emphasise at the outset that failure to qualify might be due to someone diverting towards a preferable alternative destination as well as stumbling on some personal, economic or social hurdle. Just as modern migrants may shift from one country to another in pursuit of richer opportunities, early modern workers could swap to a different city or trade. To examine failures to qualify, we concentrate upon apprenticeship.

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[1] Discussed in Ogilvie 2004; Ogilvie 2007; Epstein 2008; Davids and De Munck 2014. See also Mokyr 2002: 31.

[2] Minns and Wallis 2012; De Munck and Winter 2012.

[3] Wallis et al. 2015.

[4] Prak et al. 2014; Prak 2012.

[5] We searched extensively and unsuccessfully for comparable material in a number of German cities. For Belgium, we identified a small body of data for the late 1790s, but the evidence contained too few observations to allow any meaningful conclusions to be drawn.

Citizenship today is an avenue towards political and economic rights that is generally acquired through birth, inheritance or some combination of personal and professional characteristics that meet immigration criteria.[6] Similarly, in many pre-modern European cities, citizenship brought political and economic rights –albeit in a somewhat different form, and to a narrower, more exclusive segment of the population. The modes of entry were also often familiar: birth, inheritance or professional competence served as the primary pathways to early modern citizenship.[7] Professional competence usually took the form of a completed apprenticeship in this context, much as modern points-based immigration regimes often emphasise formal educational qualifications.

Apprenticeship is the only element of the premodern system of economic and political citizenship for which we can identify a significant number of individuals who began the process of qualification but did not complete it. Most of our data on other groups who qualified for citizenship or guild membership – such as the children of citizens and guild members or those individuals who purchased entry - only identifies those who successfully obtained access. In a few cases, the archives of guilds and cities tell us about cases of people who were rejected. But these are rarely numerous enough to generalize from. Even more concerning is that they tell us nothing about the larger group who could have qualified, but for some reason did not. Apprenticeship is thus an exceptional case, as one of the most important routes through which economic and political rights were achieved, and the one route for which we can learn something about those who failed to reach the normative end of the journey. Even so, evidence on this important problem is scarce and we are obliged by the limits of the archival record to present case studies rather than the wider comparisons we have been able to pursue in some other papers. Even with these limitations, the variations in the way apprenticeship and economic rights interacted across Europe make it a particularly useful heuristic device for thinking about apprenticeship.

This focus upon apprenticeship brings us directly into engagement with an important issue in the evaluation of Europe's historical citizenship system. One element of the charges that have traditionally been laid against premodern citizenship is that the system for obtaining citizenship via apprenticeship was a further way in which rent-seeking barriers were maintained. Critics of the system suggest that apprenticeship in this context was often simply a needless burden.[8] At best, the involvement of the city or guild in apprenticeship distorted the form of training and rendered it less efficient, often imposing unnecessary costs on the youths involved. Yet this negative evaluation may not be correct. As we will discuss below, some historians have suggested that guild involvement in apprenticeship sustained human capital formation and skill transfer. Perhaps local citizenship systems fostered growth, not stagnation?

Skill formation and skill mobility are central challenges for Europe today, as it seeks to maintain competitiveness in global markets. They are also serious issues for European economic citizenship. There is a persistent tension between the mobility of labour and national regimes for on-the-job qualifications and occupational licensing.[9] These issues are taken up elsewhere in the project under workpackage 5 (particularly D5.2). The European commission has made substantial advances in establishing systems for the portability and mutual recognition of tertiary qualifications, notably the 1999 Bologna declaration. Apprenticeship is one of the dominant channels of skill formation across most European countries. It is also one of the more successful, measured by economic outcomes.[10] Yet at present, limits on the portability of qualifications mean that on the job training is often a barrier to mobility between member states. The earlier connections between citizenship and training that we discuss in this paper thus offer a view of a different way in which regional and national mobility and skill acquisition can be brought together.

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[6] Castles and Davidson 2000.

[7] Wallis et al. 2015.

[8] Especially Ogilvie 2007; Ogilvie 2007b; Ogilvie 2004.

[9] Angrist and Kugler 2003; Ryan 2000; Kleiner 2000.

[10] See Nilsson 2010 for an overview of the literature.

2. Theory & Methods

In this paper we are focusing on failures to obtain access to economic citizenship in pre-modern Europe. It is helpful to begin by clarifying some of the specificities of the historical setting. The institutional framework that structured participation in the workforce in most urban settings was somewhat different to that in place today. Modern conceptualizations of economic rights largely centre on the individual's possession of a general right to work. Specific roles/occupations (eg: medicine) are limited to individuals qualifying under national or regional licensing regimes, but these are exceptions rather than the norm. Each individual's position in the labour market is defined by their accumulation of experience and qualifications. In discussing labour markets we commonly and usefully draw a distinction between skilled and unskilled work, but with the exception of occupations restricted by licensing this is a distinction that has no formal implications for a worker's career path.

In contrast, the institutional framework in place in many pre-modern cities and towns assumed that the majority of skilled roles/occupations were restricted to individuals qualifying under local licensing regimes (ie. as guild members/citizens) and differentiated between the rights available to workers by their level of skill and qualification.[11] The skilled labour market was highly segmented, with limited mobility across occupations. Unskilled work (servants, labourers) was often left outside licensing regimes. Conversely, members of families headed by guild members (sons, daughters, widows) could often work in a trade by right of inheritance or marriage. However, for those starting on the outside the licensed workforce was split into three levels: apprentices who were accumulating skills; journeymen who were fully skilled workers working for wages; and masters who operated independently. In theory, mastership equated to exceeding a certain level of skill. In practice, the main distinction between journeymen and masters was capital not skill. Mastership was generally tied to the right to establish a firm or household and employ other workers. Many workers in most trades would spend their lives as journeymen, a status secured by their completion of a minimum period of training as an apprentice. Journeymen possessed what is probably the key economic right: the right to work for wages. But it is important to note that they had limited political rights in most cities, and faced restrictions on their ability to work autonomously.

Of course, this is a crude sketch of a complex and highly varied reality. Still, it draws our attention to one key issue. Pre-modern Europe generally recognized *two* tiers of qualified economic citizens: journeymen and master, where modern economies see one - 'workers'. This presents an empirical and conceptual challenge. How we answer the question of who failed to qualify depends on which tier we are talking about. Two qualified tiers allow for three versions of success and failure: Are we interested in apprentices who became journeymen, journeymen who became masters, or apprentices who became masters?

In practice, our choices are restricted by the limits on the evidence that was created and survived. If we can risk a further generalization, records survive in large quantities for entries to mastership, as defining their core membership was a central concern of guilds and cities. For many, but not all areas, Europe's archives contain an abundance of registers of entries to apprenticeship, because guilds were frequently interested in ensuring that they possessed a record of who qualified for membership via this pathway. Few guilds recorded which apprentices completed their apprenticeship, however. Instead, this was attested by witnesses when a person sought to become a master. The availability of evidence is weakest on journeymen. Few guilds registered which

[11] Systematic surveys include: Epstein and Prak 2008; Farr 1998; De Munck, Kaplan, and Soly 2007.

apprentices completed their term of service and qualified as journeymen. Instead, completion was usually attested by the master orally or in a private document.[12] Because journeymen formed a highly mobile pool of labour in most of continental Europe, literally traversing the continent as they tramped between settlements, guilds rarely instituted or maintained costly paper registration systems for arrivals.[13] Occasionally, guilds did create registration systems – and we exploit examples of this in this paper - but these records are few and far between.

The available historical record thus generally defines where and how we are able to consider failure to attain citizenship or guild membership. In this paper, we concentrate primarily on the first of the three forms outlined above - apprentices who failed to qualify as journeymen - for two reasons. First, it is journeymen who possess a (partial) economic citizenship that is closest to that in operation today. Second, all direct measurements of which apprentices failed to qualify for mastership are seriously complicated by the impact of other factors, particularly migration and mortality, that may explain why someone who registered and successfully finished their apprenticeship never returned to register as a master.

The historical literature on qualifying for citizenship and trades falls into two partially distinct debates. The first examines social and occupational mobility with an eye to the existence and strength of oligarchic or rent-seeking behaviour. In this body of work, the frequency with which apprentices became citizens has often been taken as a rough indicator of the openness of urban communities and guilds to new members.[14] Examples of the data can be seen in table 1.

Table 1: Percentage of apprentices who became freemen in England & Europe

Location	Date	N	Percentage Becoming freemen
London	c.1450	4,568	43
	1490-1599	44,000	41
	1633-1660		41
Bristol	1560-1680	2,442	30
Norwich	1510-1700	5,835	17
Chester	1558-1625	183	c.50
Sheffield	1624-1814	28,500	47
Antwerp, orphans	1600-1800		53-61
artists	1500s		19-27
general	1691-1790	2,081	5.7-33
Wurttemburg	1613-47		52
	1695-1760		90

Source: Wallis 2008.

Explanations for differing, and generally low, rates of entry to the freedom largely come in three forms. First, historians have emphasised the impact of formal rules that might create high barriers to entry, such as fees or examinations, of the kind we discussed in Deliverable 3.2.[15] Secondly, historians have highlighted the impact of changes in economic structure and organization, linking apprenticeship, mastership and proletarianization into a narrative of declining corporatism and rising inequality.[16] In particular, a long-standing body of work since the nineteenth century has argued that economic specialization or vertical integration within firm or sub-

[12] Van Eeghen 1974: 20.

[13] Lucassen and Lucassen 2009.

[14] There is a relatively extensive literature on rates of entry to citizenship through apprenticeship that is surveyed in Wallis 2008; De Munck 2007: 161-9.

[15] Ogilvie 2014.

[16] Classic expressions include E.P. Thompson 1963; Snell 1985.

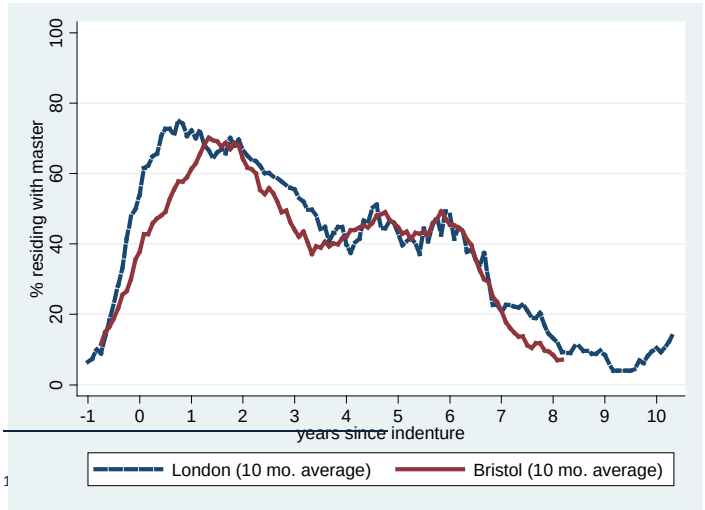
contracting networks (as in proto-industry) could make establishing an independent business more (or less) possible, leading a smaller (or larger) share of ex-apprentices to remain journeymen rather than becoming full citizens/masters – although this again depends on the rules in place.[17] Third, historians have pointed to the potential of social and cultural explanations, such as preferences for admitting the kin of existing members, that might act as filters at the point of entering a guild or citizen body.[18]

The second debate focuses on the strength and role of Europe's guilds and their importance to the operation of apprenticeship. Here, the frequency with which apprentices quit early from their contracts has been taken as a test of an indicator of the operation of apprenticeship institutions and the degree to which contractual performance by apprentices and masters was enforced. As Epstein suggested in one of the more compelling hypotheses for the positive contribution of guilds to Europe's economy, they had the potential to act as contract enforcers in apprenticeship, overcoming the problem of incomplete contracting that apprentices and masters faced.[19] Guilds, in this analysis, encouraged human capital formation by restricting opportunism.

The counter to Epstein's positive hypothesis is a body of work that suggests guilds were, as traditionally suggested, pernicious.[20] In particular, guilds could require unnaturally long minimum terms of service from apprentices. These terms provide economic rents to guild masters, who were able to avoid paying market wages for skilled labour long after training is completed. In turn, completing these terms then allows former apprentices access to the same pool of rents. Rents not skills motivate the system. We can see here an equivalent to the literature on nineteenth-century labour markets which showed how law enforcement was utilized by large employers to lock workers, including apprentices, into exploitative contracts.[21]

Epstein's thesis has been vigorously debated, but there have been few direct empirical tests of his claim or the opposing theory. Both theories share a prediction, however: that apprenticeship contracts should be served in full. If they are not, then both the (positive) benefits of enforcement, or the (pernicious) rents disappear. This prediction of fulfilled service is the basis of the one major test that has been carried out, in work on contracts in England, which used evidence from London and Bristol in the 1690s to show that apprenticeship contracts frequently broke down early and transfers between masters were also frequent.[22] The pattern of low persistence found in this study is illustrated in figure 1, which shows the percentage of apprentices resident with their master by year of contract.

Figure 1 Proportion of London and Bristol apprentices resident with their master



[18] Prak et al. 2014.

[19] This debate centres on Epstein 1998; Wallis 2008; Minns and Wallis 2012. Also see Humphries 2010.

[20] Summarised brilliantly in Ogilvie 2007; Ogilvie 2007b; Ogilvie 2014.

[21] Hay and Craven 2004.

[22] Wallis 2008; Minns and Wallis 2012.

Source: Minns and Wallis 2012.

The high rate of early exits from apprenticeship contracts that were observed in this study imply that training contracts were not strictly enforced; completion was concentrated among the limited group of apprentices who themselves aspired to become masters in the future. Apprenticeship in those two English cities flourished, even though contracts frequently failed, and it seems clear that the guilds played no substantial part in the enforcement of contracts as Epstein had posited.

Arguably, it is only in the second of these debates that failure to complete apprenticeship is properly conceptualized. In the first debate, the connection between the completion of apprenticeship and the later stage of mastership can only be weakly specified. This literature falls into the trap mentioned earlier: apprentices might well complete their training and migrate, or else remain journeymen without becoming masters. This makes the comparison between the numbers of new apprentices and new masters – the statistic that largely dominates that debate – effectively independent of apprentices' completion rates.

Failure to complete apprenticeship speaks to the evaluation of citizenship and guilds that is central to our project in ways beyond the specific debate over Epstein's thesis. In an earlier paper we explored the distribution and scale of formal barriers to entry that guilds and cities sometimes imposed at the start of apprenticeship.[23] These formal barriers took the form of absolute bars based on blood, race, or religion, or qualified barriers, such as fees or qualification periods. In most cases, the second group of barriers appear surmountable. Fees and qualification periods were substantial, but they were rarely large relative to the unavoidable costs potential citizens and guild members had to bear from the time they needed to acquire occupational skills, or the capital costs they faced when establishing a business. By looking at the proportion and characteristics of apprentices who failed to complete their qualification and obtain the economic and political privileges it brought, we are able to evaluate that conclusion. The pattern of exits can reveal the impact of informal barriers and economic factors in the ability of individuals to secure rights they had begun to qualify for. The causes of such 'failures', if systemic, may have acted as a substantial practical extension to any formal barriers that existed.

Evidence on the persistence of apprentices within their contracts is extremely scarce.[24] In this paper, we explore three new comparative case studies that allow us to investigate the distribution and nature of apprentices' exits. The first explores Shrewsbury, a mid-sized English city, at the close of the seventeenth century. The second considers Lyon, one of France's industrial hubs, between the 1680s and 1760s. The third turns to several Dutch cities, where specific records survive for specific guilds in the seventeenth and eighteenth centuries. Given that previous research has only provided evidence on two other cases, we are more than doubling the total volume of investigated sites. As important is that we provide the first detailed quantitative evidence from outside England in which we can observe developments in exit rates over time, in the case of Lyon.

The range of cases that we present allows us to consider what impact variation in the institutional framework has on apprenticeship failure. Previous research on this issue has focused on locations (London and Bristol) where guild membership and citizenship overlap fully: guild members automatically qualified as and were

[23] Wallis et al. 2015.

[24] Indications that early departure from apprenticeship did occur at significant levels in other European cities apparent in several studies: Paris (Sonenscher 1989 :109–10), Flanders (Nicholas 1995: 1128–29; and Stabel 2004: 200–01), Vienna (Steidl 2009), 16th century London (Rappaport 1989: 133-14), Sweden (Edgren 2006: 368–71), Leiden and Utrecht (Schalk 2015: 40-42). None explore the determinants or timing of exits.

required to become citizens. Completion of apprenticeship thus brought political as well as economic rights and this could lead rates of departure to vary and may affect the pool of entrants to training. The cases we discuss below fall into different variations of regime (summarized in table 2) that allow us to examine what effect institutional structures have on apprenticeship.

Table 2: Rights connected to completion of apprenticeship

	Shrewsbury	Lyon	Netherlands	London/Bristol
Economic	Yes	Yes	Yes	Yes
Political	.	.	(as citizens)	Yes

In Shrewsbury and Lyon, guild membership was separate from citizenship, and apprenticeship generated economic rights only. In both cities, economic success might lead to wider political rights and responsibilities. The leadership of Shrewsbury's guilds overlapped with the leadership of the city. In Lyon, the wealthiest merchants of the *Grande fabrique* often attained the status of bourgeois. In the early modern Dutch Republic, completing an apprenticeship was never a prerequisite for obtaining citizenship. Children of citizens automatically gained citizenship rights. For immigrants citizenship could be bought at a set fee, or in some cases it could be acquired by marrying a citizen.[25] Economic rights through guild membership were thus achieved later than, and were more narrowly defined and tightly defended, than political rights.

[25] Zanden and Prak 2006.

3. CASE 1: SHREWSBURY

The best developed existing data on early exits from English apprenticeship comes from London and Bristol, two of the largest and most economically dynamic cities of England. Possibly, patterns of apprenticeship were simply different there. Much else was. To test whether we see an exception to the rule in London and Bristol, we examine apprenticeship in Shrewsbury, a small city in the county of Shropshire in the west of England. Shrewsbury in the late seventeenth and early eighteenth century was a city of perhaps 10,000 people, placing it firmly in the third tier of English urban centres. As an ancient but modestly sized county town that was a local religious and political centre, Shrewsbury was experiencing a very different economic and political trajectory to London and Bristol. Population growth offers one of the better measures of economic development for the pre-industrial world. Shrewsbury had been expanding slowing since 1500, when it is thought to have had around 5,000 inhabitants. It continued this torpid trajectory over the eighteenth century, reaching 13,000 inhabitants in 1750 and 15,000 by 1800, lagging well behind the rapid rate of expansion observed in England's dynamic industrial centres. At the point when we can observe apprenticeship in the city, circa 1695, Shrewsbury was perhaps 40 percent of the size of Bristol and just 2 percent of the size of London.

The political economy of Shrewsbury was similar in broad outline to that found in many European cities. In 1695, the city was governed under a royal charter dating from 1638 (the last of a series dating back to Henry II) that placed power in the hands of a mayor and court of 24 aldermen and 48 assistants. A wider community of burgesses (i.e. citizens) possessed a few specific economic rights (access to common land) but their main benefit was a set of political privileges and responsibilities, including the election of Members of Parliament. The city's governance was oligarchic, with aldermen serving for life, electing the mayor from among their own body, and selecting their replacements from among the burgesses. The city operated a civil and criminal court of record separate to that of the county, its mayor (and three senior Aldermen) acted as Justices of the Peace and clerk of the market. The aldermen and assistants together formed a Common Council with the power to make bye-laws for the city, enforceable by fines and imprisonment.

The city government had devolved aspects of economic regulation to a number of guilds, whose ordinances set boundaries on who could engage in various trades. As in London, some guilds had obtained royal charters, notably the Mercers and Drapers, making their privileges independent of city authority. Shrewsbury's guilds were unusually long-lasting, with a number remaining active in the first half of the nineteenth century. According to the Commissioners investigating Municipal Corporations in 1835, the city's guilds 'claim and exercise a right to compel all persons not being free of them, on setting up trade in the borough, to compound for the freedom by payment of a fine. In some instances this right, being resisted, has been successfully enforced at law'.[26] Indeed, they concluded that 'the exactions of these companies were productive of serious detriment to the trade of the town'. The persistence of corporate regulation in Shrewsbury suggests that we would expect to find strong, coherent guild activity 140 years earlier, when the wider legal and political environment was much more favourable to such restrictive manoeuvres. Certainly, the surviving records of the guilds suggest an active engagement in monitoring membership.

Shrewsbury was unlike London and Bristol in one key respect. Prior to 1774, burgesses acquired the freedom through descent (as the son of a sworn freeman) and by purchase or gift from the city.[27] Apprenticeship was *not* a criteria for becoming a burgess. Indeed, Shrewsbury's burgess register is apparently unique, with infant children being admitted as burgesses at the same time as their father was enrolled. The city was thus much more liable to produce a closed governing system, with power concentrated in the hands of a small circle of families, than most English cities.

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[26] Commissioners 1835: 2016.

[27] Commissioners 1835: 2014. After a law suit in the King's Bench in 1774, entry was extended to include two other routes: birth in the city and apprenticeship in the city.

Apprenticeship was, however, the dominant method for obtaining membership of one of the city's guilds, along with purchase and descent from a member. Those who served apprenticeship generally paid much lower fees than outsiders who sought entry to the guild by purchase. Guild membership was more widespread than full citizenship. Just 19 of the 47 freemen of a Shrewsbury guild whose sons were registered as apprentices in our data can be identified as burgesses.[28]

Evidence on the persistence and outcomes of apprenticeship in Shrewsbury dates from the 1690s, when the imposition of a tax on births, marriages and deaths led to the production of an extensive household listing covering the city.[29] This document lists the members of 2,170 households in the city, naming the household head, along with any spouse, children, servants and lodgers. It thus allows us to see which apprentices remained in service to their master, using co-residence as a proxy for the persistence of the contract. The validity of this proxy has been discussed in earlier work using the same types of sources for other locations.[30] The key justification is that co-residence was still the norm in apprenticeship, with the provision of board and lodging forming a key element in the master's commitment to the apprentice. Moreover, there is no evidence that co-residence changed systematically over the duration of apprenticeship contracts (as might happen if older apprentices moved out) in later periods when 'boarding out' became more commonplace. Absence of an apprentice could, as we will discuss, imply a temporary separation, including assignment to another employer (in these cases the master retains a claim on their earnings and so may have arranged the absence). However, it seems that many, perhaps most absences indicate the end of a contractual relationship, with the apprentice either exiting the occupation or transferring to another master.

In Shrewsbury, these assumptions about absence appear to hold. It is difficult to trace apprentices as boarders, but we can track those whose parents lived in the city. Thirty three apprentices from Shrewsbury who were in the first seven years of their contract (the legal minimum term) can be found in the tax listing at either their parents or masters' homes. Of these, only two were living with their parents: 94% of those found were living with their master. Given that apprentices who left their master might return home, we cannot assume that even those two apprentices were living away from their master while remaining in service.

To identify masters and apprentices, we also need a listing of apprenticeships. We obtain this from the registers of five guilds, the Glovers, Mercers, Smiths, Tailors and Weavers (see table 3).[31] Collectively, they recorded 176 new apprentices bound to 188 different masters between 1688 and 1695 – this is for us the core period of interest, given that apprenticeship terms were usually seven years. Several additional apprentices were turned over in this period who were bound previously. We also listed apprentices in the years around this window (1681-1699) to generate a larger sample that would allow us to examine entry to the citizenry (burgesses). In total, our sample contains 336 apprentices who were bound or turned over to 199 different masters.

The process of matching this group of masters to the householders listed in the tax register is relatively simple in Shrewsbury, given that both sources usually record a forename, surname and occupation. The size of the city limits the number of links that are uncertain because of duplicate names. As a result, we are able to match 63% of masters in our entire dataset to householders (126 of 199) and 66% (124 of 188) in our core period 1688-1695 with a high degree of confidence. These masters were associated with 244 apprentices (some apprentices connect to more than one master). Another five masters can be matched, but with less confidence (largely due

[28] Comparison to the city's burgess roll: Forrest 1924.

[29] Shropshire Archives, SBR 275.

[30] Wallis 2008; Minns and Wallis 2012.

[31] Shropshire Archives MS6001/126 (Glovers); 6001/4263 (Mercers); 6001/5837 (Tailors); 6001/3360 (Weavers); 6001/4583 (Smiths).

to lack of information on occupation), while five are potentially matched to more than one household and are thus excluded in our analysis. In short, the results of the linkage are good.

Table 3: Shrewsbury Apprentices, by Guild

Year	Glovers	Mercer	Smiths	Tailors	Weavers	Total
1688	1	8	4	6	1	20
1689	4	3	7	2	1	17
1690	8	7	2	3	6	26
1691	4	2	2	5	3	16
1692	2	4	4	6	2	18
1693	4	1	7	11	3	26
1694	4	3	8	13	1	29
1695	1	3	7	13	0	24
Total	28	31	41	59	17	176

Note: The table reports a count of new apprenticeship registrations in five guilds between 1688-1695.

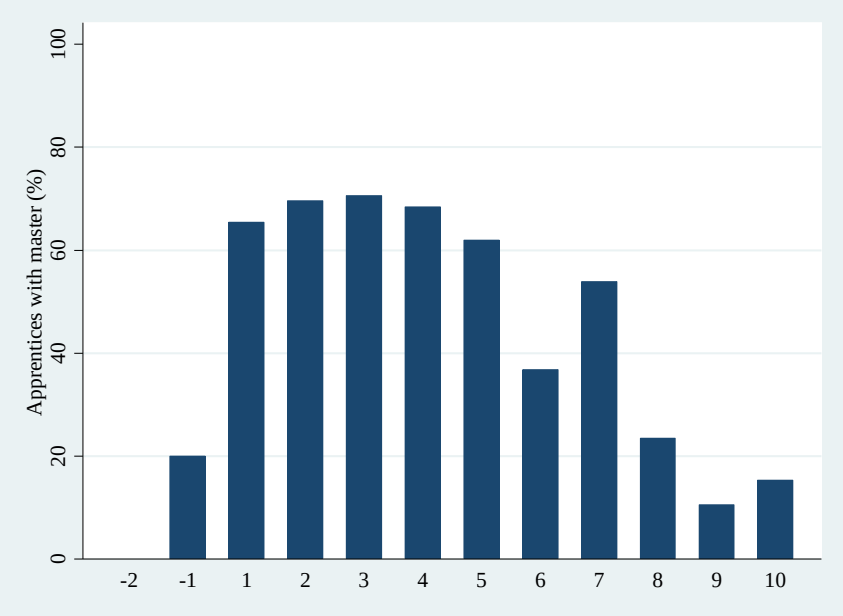
There are multiple reasons why a master might not be found in the tax listing. Some are practical: the contents of both original sources were recorded from oral reports by people who did not necessarily employ a consistent spelling for the names they were hearing. Parts of the tax listing are damaged. Parts of the apprentice registers are hard to read. Some reasons for not observing masters are a reflection of the course of everyday life: masters moved away and died, some failed in trade or changed occupation, and some might be living among lodgers or dependents in other people's households.

The main indicator of interest that we obtain through this exercise is the share of apprentices who we can observe living with their master. The results are set out in figure 2 (also appendix table 1). The share of apprentices present is 65% in the first twelve months after the contract started, rising to a peak of 71% in the third year of their contract. The share present then declines, with only 37% present in the sixth year and 54% present in the seventh and final year. The drop from peak to trough is large – almost 50% ((71-37)/71). If we take the last year as roughly equivalent to the loss rate after the recovery of temporary absentees, then the drop would be around a quarter ((71-54)/71). The outline is familiar from London and Bristol (figure 1): there is evidence of considerable rates of absence among apprentices; and the share who are present declines over time. The speed of decline is somewhat slower than in those larger cities, implying somewhat greater persistence, but the overall trend is comparable.

Apprentices might be missing from their master's household for several reasons. We can think of them as falling into four broad categories. First are those causes for absence that do not involve an end to the contract: apprentices might be visiting their family, or they might be working with another master. A period travelling overseas was common for trainee merchants, for example. That the low point of presence was followed by a recovery may point to the impact of this category of temporary separation. A second cluster of explanations – death, serious illness - have nothing to do with apprenticeship itself, although they would still affect the viability of contracting by adding to the risk of losing any investment in training that masters' faced. The third category of explanations are more worrying for us. Perhaps we are not observing apprenticeship accurately here? Maybe presence is actually a poor proxy for contracting? Are these even 'real' contracts? One could imagine that they might be empty agreements that apprentices entered into simply in order to obtain a qualification to provide legal and political rights, whether in the guild or the sector, and with no intention of actually working with their master. Such 'colourable' agreements were occasionally complained about by London's guilds. And possibly, plausibly even, apprentices and other 'temporary' residents might be under-

recorded in the records. Reassuringly, while we cannot easily reject these reasons, they would at most lead to a constant gap, not the change in rates of presence over time that is what interests us particularly here.

Figure 2: The persistence of apprentices in contracts in Shrewsbury



Note: The graph reports the share of apprentices identified as resident in their master's household in 1695 by year of service.

Fourthly and finally, apprentices might be missing because they had exited from their contract. Some changed to a new master, transferring their contract with them. Some left entirely. The guild registers offer us some information on transfers (also known as turnovers): 9% of apprentices who started their apprenticeship in our sample period later recorded a transfer.[32] However, we are able to take these official transfers into account in our analysis. The results discussed above are based on whether apprentices are with their current master, even if this was someone they had been transferred to. Only unregistered transfers – which do seem to be a feature of the system – would be an issue here. If they occurred we would expect to find the apprentices with other masters in the same trade elsewhere in Shrewsbury, and we rarely do. Just two apprentices from our sample can be identified in the households of other masters in the city. Transfers, if they occurred, do not seem to offer much of an explanation for exit.

A large share of the exits we observe seem likely to be due to the dissolution of apprenticeship contracts. With them, apprentices sacrificed the right to future training. They might suffer a financial penalty if they had given a premium to their master. They wrote off the value of at least some of time and effort they had invested: for those who left the city, even if their skills might be portable, their networks and local knowledge probably were not; for those who remained, leaving their master might have reputational costs. Crucially, they also lost the chance of accessing economic and political privileges through guild membership that they had begun to qualify for.

Why would apprentices quit? The extensive, if unrepresentative, evidence in the few surviving memoirs and law suits offer us a surfeit of motives for departure, from the physical and emotional violence that masters

[32] 29 of 317. This is likely an underestimate due to censoring at the end of term, where apprentices terms were longer than our sample window. The effect seems small, however. If we restrict our data to apprentices bound before 1690, then 8% (n=136) were transferred.

could deal out to their apprentices, to the simple wish to go to sea.[33] Intuitively, we would expect that the willingness to exit would vary between apprentices. Apprenticeship supplied some of the necessities for economic survival. Yet for help on the road to prosperity, young adults also took advantage of family wealth and connections. When these resources were local to Shrewsbury they gave an added motive to stick with their contract. For those whose ties to the city were weaker, exiting might be easier.

If we look at which apprentices left, we can see signs that this logic played out.[34] Strong local ties are associated with persistence. Boys bound to their father stayed far more often than those bound to strangers (83% vs 53%). Apprentices whose fathers were freemen of the Shrewsbury guild they entered (a group that overlaps substantially with those bound to their fathers) were much more likely to be present than those who were not (76% v. 54%). Those whose fathers were burgesses of the city were also more likely to be present than the rest (67% vs 53%).

Note that the strength of the tie weakens with each step away from the guild. It is ties to the institution that dominate here, not geography. In fact, boys from outside Shrewsbury were more likely to remain with their master than local boys who did not have a freeman father (73% vs 50%). Unlike London and Bristol, the occupation of apprentice's fathers does not leap out as an explanation, but this may reflect the small numbers of parents for which we have information.[35]

The long term consequences of leaving one's apprenticeship contract are hard to estimate. One crude indicator is the share of apprentices who later became burgesses in the city. As noted earlier, the burgesses were a small, wealthy group, whose rights were primarily political rather than economic. Entry was a general indicator of wealth and success, as well as a reflection of local networks. Only a minority - 16 percent – of those who registered apprenticeships can be traced in the register of burgesses. Those apprentices who had remained with their masters were more than twice as likely to become burgesses than those who were absent (21% v. 9%). Absence seriously reduced the chance of succeeding on this (local) measure. We simply cannot tell whether this was because these former apprentices had migrated, died or suffered a damaging hit to their reputations. Note, though, that absence did not always prevent apprentices succeeding: the fluidity of apprenticeship contracts that we observe here is not a simple division between successful (present) and failed (absent) apprentices. Absence could also come about as apprentices took the chance to find a better match, pursued an alternative career, or seize an opportunity.

Apprenticeship in Shrewsbury follows a similar pattern to apprenticeship in London and Bristol in the same period. Contracts appear to have been fluid. Absences were not uncommon. Premature exits affected a substantial share of apprenticeships. The differences between those who left and those who stayed behind were substantial, and seem to indicate the importance of local ties to the odds of an apprentice completing their contract, particularly a family link to the guild. There can be no doubt that these ties were multifaceted. They were built up of emotion and experience; they looked backwards as well as forwards. Yet the economic and political logic is also hard to ignore. Those youths who were most likely to stay were the individuals with the best local connections – the ones who might inherit a business or come to share in family capital. In short, apprentices' absences reflect a rational response to opportunity, as well – no doubt – an emotional and cultural reaction to chance and circumstance.

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[33] Lane 1996; Griffiths 1996.

[34] The statistics for this paragraph are based on the 150 apprentices in the sample who were bound 1688-95 inclusive, whose master was linked to a householder, and for whom we are clear if they are found or are missing from the household. If the apprentice was turned over before 1695, we examine their new master's household.

[35] We know parental occupation for only 48 apprentices of the 150 discussed here.

That Shrewsbury shows such a similarity to London and Bristol is in some ways surprising. The economic conditions of the city were markedly different, even if the residents of all three places faced the same rather difficult national headwinds in this decade. The relationship of apprenticeship to citizenship also differed. Both London and Bristol rewarded apprenticeship with a privileged route into the citizenry. Shrewsbury did not. Its apparently strong guilds, faced by an environment that was likely relatively simple to monitor, at least if compared to London or Bristol, could coexist with 'weak' apprenticeship enforcement.

This evidence from Shrewsbury points to several preliminary conclusions about rates of failure to qualify for economic citizenship. First, it argues against the idea that the pattern of high rates of early exit from apprenticeship that were identified in previous work on London and Bristol were specific to the unusual political and economic conditions of England's largest, most dynamic cities. Apprenticeship as practiced in Shrewsbury was also a flexible system with high levels of mobility during contracts. Out-mobility of apprentices – who were often themselves migrants – generated a gap between the number of those who might have qualified for economic citizenship and the share who eventually did. Underlying this was a tension between the value of human capital and the worth of localized rights. Many of those who abandoned the path to citizenship rights seem to have done so rationally: they had better chances elsewhere and so preferred to exit with a portion of training completed rather than fulfil the final years that would have brought them a limited set of economic rights.

Second, if we consider what this implies for the question of how locally based citizenship regimes tend to function, there is no sign here that the guilds of the city are playing a role in enforcing apprenticeship contracts, as Epstein suggested. The guilds were focused on registering entry, transfers (and occasionally exits) – their efforts were directed to identifying who qualified as members, and how many apprentices their members took. On the other hand, there is little here that could be read as indicating that guild apprenticeship was a hollow shell, and – very clearly – no evidence that guilds were using their oversight of apprenticeship to keep youths locked into exploitative contracts. Both the positive (enforcement) and pernicious (exploitation) accounts of guild behaviour fit poorly with these results. Local citizenship regimes in this instance do not seem to have used their powers to control labour negatively.

4. CASE 2: LYON

If Shrewsbury appears to show that high rates of failure to qualify for economic citizenship, as measured by levels of early exit from apprenticeship, was not a phenomenon limited to England's large cities, we might still ask if this was an English phenomenon. Perhaps it reflected some national peculiarity of apprenticeship? Perhaps it was a product of England's 'weak' guilds or its unusually long (seven year) apprenticeship terms? In short, we need to look to the rest of Europe for answers as to how far this was a general feature of premodern urban citizenship.

In this section we discuss apprenticeship persistence and exits in Lyon, France. In France, the organization of economic citizenship was largely distinct from political citizenship. Urban guilds in many cities and towns regulated access to specific occupations, while participation in governance, what we might think of as political urban citizenship was very limited. In Lyon, five people made up the city's governing body, the *consulat*: 4 *échevins* and 1 *prévôt des marchands*. Until the sixteenth century, the heads of the city's guilds had elected the *consulat*; subsequently, the selection was essentially oligarchic, with the échevins selecting their successors and the pool of maîtres des métiers who nominally elected them, and the choice of prévot was heavily influenced by the crown. The wealthiest and best connected merchants in the guilds did become involved in city government, often attaining the status of bourgeois, but this was distinct from their guild membership.

Lyon was a large and expanding city in the eighteenth century, growing from around 100,000 inhabitants in 1700 to around 150,000 in the late 1780s.[36] Most of the workforce in the city was organised into one of 72 guilds.[37] Silk weaving in the city had been authorised by the king in 1536, who established a silk weaving guild, the *Grande fabrique*, and granted it a monopoly on importing thread at that time.

Lyon's industrial position was distinctive in the eighteenth century. It was the dominant city in one of France's most valuable industries, silk weaving, even though its thread monopoly had lapsed. In 1784, the city contained twice the number of looms as all the other centres for silk production in the country combined.[38] In turn, silk manufacturing dominated the city. By the late 1780s, around 38,000 people were engaged in silk weaving, working an estimated 14,000 looms.[39] By this time, silk workers made up around 40 percent of the skilled labour force.[40] The silk industry of the city was devoted to rich, luxurious, figured fabrics in the eighteenth century. Work was organised largely by merchants putting out raw materials to weavers operating in their homes who received a piece rate for cloth woven. Most workshops remained small, with only 1.4 journeymen per master in the late eighteenth century.[41] Over the eighteenth century, there appears to have been an increase in inequality within the industry. Around 1730 the average amount of wealth that journeymen silk workers' brought to their marriage was 41% of that brought by masters. By the late 1780s, journeymen were bringing just 30% of the masters' average wealth.[42] Nonetheless, silk production remained an attractive sector, and silk workers were more literate than other workers, and more likely to be of local origin.[43]

If the concentration of the industry was intense, so was its regulation. Silk production was regulated through the *Grande fabrique*, and weavers were distinguished into a clear hierarchy of apprentices, journeymen and masters. Unusually, the masters were separated into weavers and merchants. Rules for attaining each status

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[36] Garden 1970: 19.
[37] Garden 1970: 178.
[38] Cayez, *Métiers Jacquard et hauts fourneaux*, p. 45, cited in Sheridan 2006.
[39] Garden 1970: 209.
[40] Garden 1970: 179.
[41] Garden 1970: 179.
[42] Garden 1970: 197. The fortune of workers grows from 475 (1728-30) to 600 l. (1749-1751) and then to 850 l. (1786-89); while the masters grow in same years from 1,160 to 1,870 to 2,840.
[43] Garden 1970: 171, 239.

were precisely defined.[44] Apprentices had to serve for five years, counted from the date their contract was registered by the guild. Youths needed to be at least 13 years old to be bound, raised to 14 in 1737. When registered they paid a fee to the guild. Masters could only take one apprentice at a time. If they did not come from the city, they were barred from taking any apprentices for ten years. Apprentices had to live with their master, and could not marry. To become a journeyman, apprentices were tested by the guild on their skills and had to provide a certification from their master attesting to their service. Aspirants for mastership were also tested on their skills and paid fees, and had to have spent several years working as weavers. The sons of masters (and the sons-in-law) were not required to serve an apprenticeship and instead qualified for mastership by inheritance, but in practice they often went through an informal apprenticeship (labelled as *affermés*).

One accidental outcome of this dense web of industrial policing is that for Lyon we are able to analyse a substantial body of evidence on apprenticeship in the city, drawn from three of the registers of apprentices kept by the *Grande Fabrique*. These registers are unusually detailed. The guild made obsessive efforts to record events that disrupted contracts – events that in effect undermined the value that a successfully completed apprenticeship term had as a qualifying period for achieving the higher status of journeyman or master, and risked allowing a master to exceed their quota of apprentices. They did this by scribbling a note in cramped handwriting into the margins of the original contract registration. The apprenticeship registers form just one element of an extraordinary archive. The guild kept parallel series of registers of journeymen, masters and 'orders' made by the guild consuls, often cross-referenced with each other. Together, they reveal an elaborate bureaucratic campaign to monitor and discipline the community of silk weavers.

Our sample contains the records of 5,281 apprentices who entered contracts between the late 1680s and the late 1760s (see table X). For most entries we have the apprentice's name, a little information on their place of origin, and the name of their master and the date of the contract – the kinds of information that are usual in similar registers across Europe. Slightly less commonplace is the guild's inclusion of the apprentices' dates of birth and age – from 1744, apprentices were required to supply proof of date, place of birth and (Catholic) baptism when they were registered.[45] The system of registration appears to have been rigorously maintained. More than 92 percent of apprenticeship contracts were registered within one month of being made; 69 percent were registered within a week.[46] Apprentices who were transferred to another master during their contract were generally re-registered with a new entry recording their contract with a new master, giving us a second pool of records.

Table 4: Lyon Apprentices, Sample

Register	Period	N Apprentices	New registrations (%)	Transfers (%)
597	1680s	1,041	94.3	5.7
601	1740s	2,505	85.3	14.7
602	1760s	1,735	88.4	11.6
Total		5,281	88.1	11.9

The youths who became apprentices in Lyon were largely drawn from the local area in the late seventeenth century. Between our three sample periods, apprenticeship became more open to outsiders. From 1702 the

[44] The guild's rules are set out in Godart 1899: 100-133. We concentrate on rules active in the period under consideration here.

[45] Godart 1899: 100-133.

[46] In theory, masters were fined if they did not register a contract within a week: Godart 1899: 107.

Grande fabrique required that apprentices be drawn from the city or the Lyonnais province.[47] However, this may have been a formalization of earlier practices: 99 percent of those registered in the 1680s for whom a town was recorded were from Lyon.[48] In 1744, just before our second sample begins, the rule was relaxed to allow youths to come from another nine provinces, and in the 1740s and 1760s we observe only 22 to 27 percent of apprentices coming from Lyon itself. The age at which apprentices started increased over time. In the 1680s, the median age was 13 years (mean = 14.5). In the 1760s, the median age was 16 years (mean = 16.3). They were also largely unrelated to the masters with whom they were placed. Just 2.5 percent shared the same surname. The group of youths was somewhat different to those entering English apprenticeships in the same period, who were instead tending to become younger, and who were substantially more likely to be related to their master (when measured by possessing a common surname).

The distinctive feature of the Lyon registers is their record of events *after* the initial contract of apprenticeship was registered. The registers contain information about three types of event: cancellations of a contract, interruptions, and transfers of apprentices to other masters. The types of information kept by the guild's officers and clerks were not entirely consistent over this long period. In the 1680s, we often have information on when an apprentice began to work as a journeyman, and where apprenticeships ended prematurely, the annotations distinguish between those where the apprentice abandoned the trade ('*desistement*') and those which were made by the order of the consuls. These details are missing later. From the 1740s, however, we also have records of the interruptions and resumptions of contracts. For some apprentices, at least, we can see in minute detail the twists and turns that affected them as they moved through their apprenticeship. Noel Chevrieu was three times interrupted ('*3 fois interrompu*').[49] Pierre Guyots was transferred to a new master in May 1749, December 1750 and October 1751.[50] These registers thus allows us to look at the persistence of apprenticeship contracts, albeit with a different method to that we used in the case of England.

These events were entirely legitimate, but not for the most part encouraged by the guild. The guild sanctioned apprentices who ran away by making them serve a full five years if they later sought to train with a different master; masters who poached another's apprentice were fined. The guild and *consulat* were entirely happy to accept that a master might eject an apprentice if he could offer some cause. In such cases they issued an order cancelling the contract. However, from 1744 they did then penalize the master by preventing him taking a replacement before the original contract would have finished. Transfers (*remises*) were accepted and registered, although a fee was charged.[51]

For the entire period, we are able to observe the share of apprentices whose contract was marked as having been formally cancelled. This was, in fact, a hard exit from the contract. The language the clerks used for this was telling: the contract was scratched out ('*rayé par ordre*'). On average eighteen percent of contracts were cancelled formally, and another 1.2 percent were noted as ending because the apprentice had died. The rate of cancellation was markedly higher in the late seventeenth century, when 24 percent of contracts were cancelled. For this period, the register is a little more detailed, and indicates that this was mostly because the apprentice had abandoned their place – 17.8% were noted as *desistement*.

[47] Godart 1899.
[48] Note that this information was recorded for only 22% of apprentices in this period.
[49] HH601, #959.
[50] HH601, #1853.
[51] Godart 1899: 111.

Table 5: Apprenticeship Cancellation in Lyon

Period	Dead	Cancelled	All Exits	N
	(%)	(%)	(%)	
1680s	1.2	22.7	24.1	982
1740s	1.3	16.2	17.5	2,136
1760s	1.2	12.7	14.0	1,533
Total	1.2	12.7	17.7	
N	59	766	825	

Note: the table presents the percentage of all apprentices in the register whose contracts ended for one of three reasons. Only one reason is given for each apprentice. Sample restricted to new apprentice registrations.

Termination was, obviously, final. Yet apprenticeship contracts might change in other ways. The Lyon registers are to our knowledge unique in systematically recording *temporary* pauses in apprenticeship. They indicate that ten to fifteen percent of apprentices would take a temporary break from their contract. Of that group, only around a third in the 1740s and a quarter in the 1760s would be recorded as having later restarted their contracts. Another third later cancelled their contracts (of whom a small number had restarted first). We simply have no record of what happened to the final third or so of apprentices who had interrupted their contracts. Perhaps they restarted with no formal record being made. Perhaps they quietly disappeared into other trades.

Table 6: Interruptions of Contracts in Lyon

	I	II	III	IV	V	
Period	Interrupt	Restart	Cancel	Cancel after restart	Unknown	
	(%)	(%)	(%)	(%)	(%)	N
1740s	11.4	3.8	3.9	0.5	4.2	2,136
1760s	15.9	3.6	7.49	0.3	5.11	1,533
All	13.2	3.8	5.4	0.4	4.4	
Total	489	138	199	16	168	3,669

Note: the table reports the percentage of apprentices registered as interrupting contract, restarting after an interruption, and cancelling their contract after interrupting. Column IV reports the share cancelling after restarting and these individuals are also counted in column III (Cancel). Column 5 reports the share unknown, i.e. V=I-II-(III-IV). Sample restricted to new apprentice registrations.

The third way in which apprenticeship contracts might be changed was through a transfer to another master. As we noted earlier, about twelve percent of the registrations made by the *Grande fabrique* were for transfers, not initial contracts. The way in which transfers were recorded changed between the 1680s and 1740s. In the 1680s, 24 percent of new apprentices had a transfer recorded on the same entry. In the 1740s and 1760s, less than half a percent of new apprentices had a transfer noted on the record of their first contract, but the share of transfers that were entered as separate items in the register grew to make up around 13 percent of all entries (see table 4). This change appears to reflect a tightening in regulation. In the 1680s, it seems that the transfer was often leading to the initial contract being registered for the first time. At this point, many turnovers were dated within days of the apprentice's initial contract being registered: 47 percent of turnover registrations (when the turnover was associated with an initial contract) occurred within 6 days of the initial contract registration. For the same group, the gap between the date of an apprentice's contract and its

registration was much longer – the median gap was 51 days. By the 1740s, the median gap from the date of the initial contract to registration among apprentices who were later turned over had fallen to just four days. This changing approach to registration makes it difficult to estimate the share of turnovers exactly. For the 1680s, in particular, it would seem that registration of new apprentices was patchier than it later became, making the population of apprentices at risk uncertain. The rates we observe in the 1740s and 1760s suggest that 15 percent would be a reasonable minimum estimate, however.

If we look at *when* during apprentices' contracts these different types of disruptive event occurred, we see that most came early on. As table 7 shows, half of all interruptions, transfers and cancellations came during the first two years of the contract – which was normally five years in length. Those who made it to the final year of their contract largely stuck it out. Only a few would turnover or interrupt, let alone cancel, at this stage. But this bias towards the early years of the term was not due to apprentices experiencing immediate hostile reactions to the experience of becoming an apprentice or discovering the reality of work in the silk industry. The majority of these apprentices served at least the first year of their training contract. One implication of this is that these exits were not part of a system by which the early part of a contact was a trial to see if the apprentice was suitable and the master satisfactory – such trial periods when they are observed elsewhere usually occurred before the formal contract was agreed, and if they existed in Lyon this is likely to have been the case as well.

Table 7: The Timing of Contract Breaks in Lyon

	Interruption	Turnover	Cancel
Year of Contract	(%)	(%)	(%)
1	24	20	24
2	27	27	24
3	25	24	18
4	15	19	11
5	9	9	5
6	1	1	15
7	0	0	2
8		0	1
9			0
Total	100	100	100
N	521	860	970

Note: the timing for transfers is based on the date of contracts, not their registration date.

We know relatively little about the backgrounds of apprentices in Lyon that would allow us to explore which of them were more or less likely to experience any one of these interruptions. The place of origin of apprentices is the only characteristic which we can use to identify differences between apprentices, and then only in the eighteenth century. When we compare the fortunes of apprentices from the city of Lyon with those drawn from further afield, we find no major differences in the likelihood that they interrupted or cancelled their contracts.[52] Migrants were marginally more likely to cancel their contracts than locals, but the difference was small (15.3% v 11.8%) in the 1760s, and trivial (19.0% v 17.2%) in the 1740s. There is no sign of the sharper impact that geography had in England.

One feature that we are able to consider is the way in which the master's experience and longevity in business affected his apprentices. The likelihood that contracts would be cancelled seems to have increased when

[52] The place of origin of the apprentice is rarely recorded when a transfer is being registered in the 1740s and 1760s, so we cannot examine the relationship between transfer and local origins.

apprentices were bound to newer masters. Contracts were cancelled roughly twice as often among apprentices who contracted with a master who had taken their mastership within the previous five years when compared to those who contracted with masters who had more twenty years of experience as a master. Transfers and interruptions do not seem so obviously affected by seniority.

Table 8: Distribution of cancellations, interruptions and transfers by seniority of master

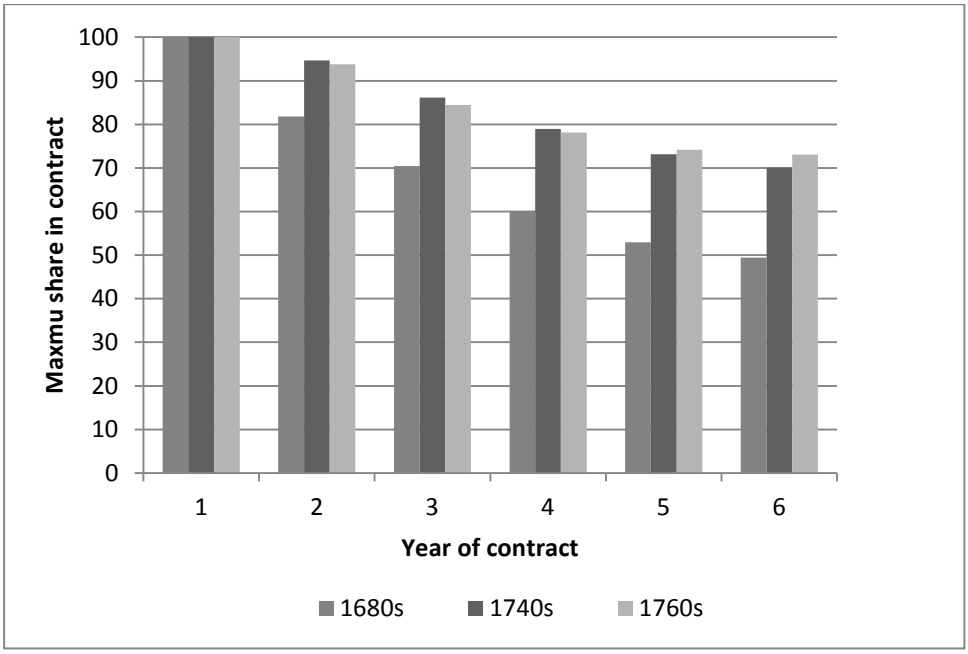
Years after mastership	Cancel		Interruption		Transfer		N	
	1740s	1760s	1740s	1760s	1740s	1760s	1740s	1760s
0-4	22.7	18.2	11.0	19.6	13.0	8.3	563	484
5-9	19.1	12.3	15.2	15.6	14.3	14.7	435	211
10-14	15.5	15.1	10.1	17.0	13.3	9.9	414	212
15-19	12.8	13.1	7.5	17.5	12.1	9.8	305	183
20-24	11.1	9.8	5.8	12.4	13.2	6.5	243	153
25-29	10.9	13.5	11.4	17.4	10.4	14.8	201	155
30-34	6.5	8.0	6.5	11.0	15.1	6.0	93	100
35-39	7.1	6.2	12.9	6.2	24.3	9.2	70	65
Total	100	100	100	100	100	100	2324	1563

Note: the table reports the share of contracts that experience each category of event within 5 year periods from the apprentice's master was accepted as a master by the guild.

The accuracy of this analysis depends on the quality of the *Grande fabrique's* registration system. To some extent, we would expect that these figures under-report interruptions, transfers and exits. No bureaucracies are ever entirely successful, and the officers of the guild faced a substantial challenge in a growing industrial centre of the size of Lyon. We have already seen evidence that in the 1680s, registration of apprentices was less than complete. That gaps in the records existed is also made obvious for those apprentices whose interruption led neither to the resumption or termination of their contract. But they at least had masters who had taken the trouble to record their interruption. We might expect that not all would bother.

Overall, a third of Lyon apprentices would either transfer to a new master or cancel their contract. The rest finished and qualified as journeymen, so far as we can tell. Both types of early exit became less common as time passed, as figure 3 shows. In the 1680s, over 50 percent of apprentices would transfer or cancel if we take the records at face value – possibly those apprentices who did not register their contracts were more stable, but that would be a strong assumption to make in the absence of evidence. By the 1760s, the share of apprentices transferring or cancelling had fallen sharply to 24 percent (although another 7 percent temporarily interrupted). One in four apprentices is not a trivial number, to be sure, and this excludes events that did not come to the notice of the guild. However, it points to a growing stability of contract within the Lyon silk industry. Such a development would fit well with later observations of apprenticeship in dense industrial districts in the late nineteenth century and early twentieth century, when completion rates among apprentices were high. Indeed, they may imply that many of the factors that modern economists point to in explaining why apprenticeships persist – the importance of reputation in obtaining later jobs, the interest employers have in using training to identify productive employees – were increasingly at play in the Lyon silk industry as it continued to grow and intensify over the eighteenth century.

Figure 3: Attrition among apprentices in Lyon by turnover and cancellation



Note: the figure shows the share surviving of a hypothetical cohort of apprentices experiencing the rate of transfer and cancellation observed in our sample at the start of each period (so at the start of year 1, 100% of apprentices are present). No attempt is made to account for the effect of non-resumed interruptions.

Apprenticeship in Lyon shows some striking parallels with the patterns of apprenticeship we observed in Shrewsbury, London and Bristol. Lyon saw quite high rates of early exits and transfers by apprentices – at least judged against a theoretical norm of stable workshops and strictly enforced contracts. In the late seventeenth century in particular, only around half to two-thirds of apprentices would make it to the end of their contracts. In all cities, we see ten to twenty percent of apprentices moving to new masters. The rest departed in one way or another. Rates of exit were high on both sides of the channel.

Lyon shows one other striking similarity to London, in the involvement we find in both cities of formal institutions in registering breaks in apprenticeship contracts. As we have seen, in Lyon the guild and *consulat* operated a system to formally cancel apprenticeships. In London, the Lord Mayor's Court offered a comparable service: roughly ten percent of apprentices in the city would bring a suit their to have their contracts voided.[53] Both cities developed a formal institution that allowed apprentices and masters to exit from contracts they no longer wished to keep. Premature exits were built into the system of guild apprenticeship.

In short, in Lyon we see a substantial minority of apprentices failing to qualify for economic citizenship. Unlike in Shrewsbury, we see no clear sign that this was connected to the geographical differences in opportunity faced by locals and migrants. Possibly the extreme concentration of the silk industry meant that there was little value in exporting skills from Lyon, so any departure from training was unlikely to be part of a trajectory into the same occupation in a different place. Either way, there is no support for the argument that guilds were locking youths into exploitative contracts from which they were unable to escape.

[53] Wallis 2012.

5 Case 3: The Netherlands

Lyon was a large and rapidly expanding industrial city. The *Grande fabrique* was, perhaps, an unusual guild. Certainly the quality of its records attest to an impressive investment of wealth and clerical energy into economic regulation. Perhaps it is the wrong place to look for the everyday practices of economic citizenship in continental Europe?

In this section, we examine apprenticeship in several guilds in the Dutch cities of Amsterdam and Leiden during the late seventeenth and eighteenth century. By the late seventeenth century the period of unprecedented growth of the Dutch economy had ended and was followed by a century of stagnation. In Amsterdam, the commercial centre of the Dutch Republic the population basically stagnated between the 1680s (219,000) and 1795 (214,000).[54] Leiden had been a major textile producer since the late sixteenth century, but here too decline had set in by the eighteenth century. The drop in textile production caused by putting-out, foreign competition, and tariffs had increased unemployment and demand for welfare. The population of Leiden declined from 56,250 in 1700 to 30,995 in 1795.[55] In contrast to the textile industry, production in the craft sector was mainly geared towards local and regional markets.

Both cities were ruled as oligarchies by one or more burgomasters in combination with a bench of aldermen. Both had the right to send delegates to the provincial and through these to the Estates General, and operated civil and criminal courts. Leiden had a university and Amsterdam an 'illustrious school' or academy. In both cities the crafts were organized in dozens of guilds, and one of the primary benefits of a successfully completed apprenticeship was access to guild membership. The exception to this was the textile industry of Leiden, which was not controlled by guilds but by *neringen*: craft organizations without membership, controlled by the magistrate, which supervised certain sectors within textiles primarily on product quality and sales. Unlike most Dutch guilds these *neringen* did not set apprenticeship terms, and the number of simultaneously allowed apprentices in different textile crafts was either unregulated or set at high levels. For that reason they appear to have absorbed large amounts of unskilled (child) labour in the early modern period.[56]

Our evidence on the persistence of apprenticeship in the Dutch context comes from records of whether an apprentice had actually finished his required term. This is the most direct measure of completion possible. However, it is rarely available, even here. The form of the record of completion was a note made by the guild's officials recording whether an apprentice had received his *leerbrief* ('letter of learning'). These letters were given to apprentices upon completion of the minimum apprenticeship term set by the guild. Apprentices were often required to show their *leerbrief* when taking up a position as a journeyman, especially when they migrated to another city after their apprenticeship.

Although many guild by-laws required that workers produce a *leerbrief* as proof of completion when registering as a journeyman, it appears that in most cases these letters were issued privately between master and apprentice, just as many apprenticeship contracts were privately conducted.[57] As a result only a tiny minority of guilds actually listed them. So far *leerbrief* registration has been found for the Amsterdam pig butchers' guild, the Amsterdam pastry bakers' guild, and the Leiden surgeons' guild.[58] In total, our sample covers 1,554 apprentices across the three guilds. The terms these apprentices served varied. Leiden surgeon apprentices had to serve five years, of which at least two were spent consecutively under one master. Apprenticeship fees were waived for sons of masters. Local apprentices had to pay 1.50 and apprentices from outside Leiden three

[54] Van Leeuwen and Oeppen 1993: 87.
[55] Pot 1994: 58.
[56] Van Nederveen Meerkerk and Schmidt 2008.
[57] Van Eeghen 1974: 20.
[58] Stadsarchief Amsterdam, Archief Gilden, inv. 591 inv. 1470; Regionaal Archief Leiden (RAL), Archief Gilden, inv. 351.

guilders. All had to pay six guilders to obtain their *leerbrief*.[59] At the Amsterdam pig butchers' and pastry bakers' guilds *leerbrieven* were issued after two and three years respectively, although it is possible that these apprentices stayed longer. Fees are unavailable for either guild.

Table 9. Early exits based on leerbrieven in Leiden and Amsterdam, 1683-1811

City	Guild	Period	Apprentices	*Leerbrief*	Early exit	Exit (%)
Leiden	Surgeons	1683-1729	394	237	157	40
Amsterdam	Pastry bakers	1748-1776	643	323	320	50
Amsterdam	Pig butchers	1787-1811	517	167	178-350	34-68
Total			1554	727	655	42-46

The share of apprentices who failed to complete their minimum apprenticeship terms is summarised in Table 1. Early exits were very common in all three guilds. In all three guilds at least one in three apprentices quit early. The pig butchers guild was not entirely consistent in recording exits, leaving us a group of 173 apprentices for whom we do not know the outcome. If we make the not unreasonable assumption that this group did not receive their *leerbrief*, then 68 per cent of apprentices in this trade exited early. Apprenticeships at the surgeons' guild were arguably more exclusive since they required more skills and because they were overseen by a college of doctors with a university degree.[60] Nevertheless, here too a substantial share of apprentices never finished their minimum terms of two years. It is interesting to note that these guilds appear to suggest an increasing frequency of early exits over the course of the eighteenth century. Perhaps this can be related to the stagnating Dutch economy; certainly it is the opposite of the trend we saw in Lyon, where exits decline as the size of the industrial centre grows.

In addition to this measure of exit from apprenticeship, we can also establish whether apprentices changed their master during the apprenticeship. Most apprentices in these guilds never recorded a change of master; the share who did transfer to a new master was 11 percent, almost exactly the share observed in Lyon in the eighteenth century and in Shrewsbury, London and Bristol in the late seventeenth century. Interestingly, for those apprentices who did transfer, their move does not appear to have affected early exits. Grouped together, about 39 per cent of apprentices who transferred master would exit early compared to 42 per cent of apprentices who did not move masters.

Table 10. Number of masters and early exits

Masters	Pig Butchers			Pastry bakers			Surgeons		
	Total	*Early exit*	*%*	*Total*	*Early exit*	*%*	*Total*	*Early exit*	*%*
1	444	143	32	588	302	51	348	141	41
2	62	28	45	51	17	33	41	13	32
>2	11	7	64	4	1	25	5	3	60

[59] RAL, Archief Gilden, inv. 311.

[60] RAL, Archief Gilden, inv. 311.

Why did so many apprentices exit early in the Netherlands? Regrettably, as in Lyon and Shrewsbury, none of the sources inform us when these apprentices quit exactly, but we are able to explore some of the characteristics of the apprentices to see how their backgrounds and ties affected the probability that they would reach completion.

For surgeon's and butcher's apprentices we can test whether geographical origin affected how likely they were to exit their contract early. Among the butchers' apprentices a remarkably large share were of foreign origin. We know the origin of 440 Amsterdam butcher apprentices, and 287 were foreign descent. This mattered for early exits. Of all foreign apprentices 37 per cent are known to have exited early. For Dutch apprentices this share was 25 per cent.

However, when we correct for which apprentices had kin ties to their masters it appears that the latter were more important. Masters of foreign origin sometimes took on foreign apprentices with a similar surname. These were likely related to their masters in some way. Certainly, this reduced their propensity to make an early exit. Of the 45 foreign apprentices that were bound to a master with a similar surname, 66 percent completed their terms. Among foreign apprentices without a kin tie to their master, completion was only 23 per cent. Local apprentices benefitted too from ties to the guild. Around 70 per cent of Dutch apprentices that shared their surname with a guild master completed their term, compared to 29 per cent of non-related Dutch apprentices. It seems that ties to existing masters mattered more than being foreign or not. It is easy to envisage a rationale to explain this pattern. Apprentices with strong ties to their masters probably entered into the contract with a fuller understanding of their master and the trade, they faced greater disincentives against leaving early, and they could look forward to building on their connections and family resources to find work as a journeyman or to set up their own shop in the future.

For Leiden surgeons, the presence of ties between apprentices and masters also mattered. Surgeons' apprentices can be categorized in three groups based on the fees they paid when registering: sons of masters, citizens, and apprentices from outside Leiden. The last group paid three guilders, citizens paid one and a half guilders, and sons of masters were exempt from paying this fee. In absolute terms, even three guilders was a modest sum, the equivalent of three days' wages. Early exits were somewhat more common among non-citizens: just 44 percent would complete, compared to 60 percent of citizens. The most persistent group by far, however, were the sons of masters, among whom 82 per cent of apprentices completed their terms. The relationship is consistent with that seen in the butchers: kin ties were the strongest influence on completion, with local connections adding a further reinforcement.

For the Leiden surgeons' guild we can also plot completion rates by age-group. Since most observations are from non-master sons, only these groups can feasibly be compared. Figure 2 shows that chances of completion were lower for non-citizens, as we noted. Apart from the outlier at age 17, citizen apprentices from all age groups had higher chances of completion. Chances for completion increased to around the age of thirteen, especially for citizens. Most surgeons' apprentices started between the ages of thirteen to fifteen, and it seems that anyone starting earlier or later already was at a disadvantage (except from relatively old local apprentices, who may already have been skilled). Perhaps these apprenticeships were relatively standardized, or perhaps masters simply preferred apprentices from this age category.

Figure 2. Share of Leiden surgeon apprentices acquiring a leerbrief, 1703-1729

The evidence for early exits in the Dutch Republic suggests several observations about failure to qualify for economic citizenship in this period. First, a substantial share of apprentices exited during their apprenticeship, as indicated by the low amount of *leerbrieven* issued. These shares varied per guild, but arguably one in three apprentices may have dropped out. We do not have information on the timing of the apprentices' exits, as we do in Lyon and England, but the quality of the measure of early exits is much more robust in this case. Rates of failure were substantial.

Second, the likelihood that a youth would qualify for economic citizenship by completing an apprenticeship were strongly influenced by the social and economic position of the youths involved. Strong ties with guild masters seem to have mattered greatly for apprenticeship completion. Apprentices who shared surnames with guild masters or were identified as sons of masters experienced significantly lower rates of early exit. Indeed, sons of masters also experienced much higher probabilities in becoming masters at a later stage. The lowest completion rates for both apprenticeships and obtaining master status are found for non-citizens. In all guilds it was possibly as likely for the latter group to drop out as it was to finish their term.

Third, the considerable differences between Leiden and Amsterdam, and the type of trade involved in each of the three guilds we study here, do not seem to have mattered greatly for the form of apprenticeship we observe. Completion rates for the Leiden surgeons' guild are close to those observed for Amsterdam bakers and butchers. This suggests that the findings for Amsterdam may not have been unrepresentative because of the dissimilar nature of Amsterdam as the largest and commercially most important city of the Dutch Republic.

In terms of the interaction between economic citizenship and apprenticeship as a qualifying device, the Dutch case in general shows clear parallels with the English and French cases. The practice of apprenticeship is similar: the high rates of failure to qualify in the Netherlands are broadly equivalent to those seen in Lyon or London. Transfers of contracts between masters are also at a similar level, affecting just over one in ten youths. In terms of institutional impacts, there is little sign of the guilds enforcing contracts or rigidly restricting mobility that we would expect under either the positive or pernicious hypotheses about premodern urban citizenship. Guilds in the Netherlands monitored training, rather than policing it.

6. Conclusion

In this paper we explore the rates of failure to qualify for economic citizenship in pre-modern Europe in order to advance our understanding of the characteristics of Europe's premodern citizenship system. We focus on the completion of apprenticeship, probably the most important formal route into basic economic citizenship, as understood in an early modern European context. Our results are strikingly consistent across all three case studies. At its most simple, we find that rates of failure were between a third and a half in the Netherlands, France and England. This shows that the conclusions of earlier research on England are not exceptions defined by their unusual setting. While the formal rules of Europe's local, urban-centric system of economic citizenship look rigid, the actual labour market practices that were generated within this regime were far more fluid.

There are three main empirical conclusions from this study. First, as just stated, a substantial share of apprentices did not finish their terms of service and thus qualify as journeymen, by failing to complete their apprenticeships. From one perspective, this was a failure that came at a significant economic cost for the individual - if they wished to pursue the same occupation in the same place. The price of failure depended on the degree to which guilds and other authorities enforced the barrier to non-qualified journeymen, but it is unlikely to have been trivial in any of these contexts: eking out a life in the economic margins of a trade is rarely easy. Failure to achieve economic citizenship in one locale was thus likely intertwined with mobility to another setting, where this penalty could be avoided.

Yet our second finding pulls in a different direction. When we are able to identify which apprentices depart and which stay (as in the Netherlands and Shrewsbury), there seems to be evidence of both economic rationality and insider preferences: local ties increase the chances of completion, direct guild ties lift them even further. Those who lack connections are more likely to exit. On the one hand, this implies the presence of an insider preference on the part of guilds. While they were of necessity open to many outsiders, it was insiders who had the highest chance of making it through the various hurdles that the citizenship qualification system placed in their way. This finding qualifies the results of our work on openness: it may be that the majority of members of guilds were 'outsiders', but those outsiders sought to advance their own kin ahead of the next generation of newcomers, and to an extent they succeeded. On the other hand, this pattern of exits is consistent with the idea that 'failure' by exiting apprenticeship early may actually be a positive choice in at least some instances. If a youth judges themselves to be sufficiently skilled after completing a few years of their training, then it is in their interest to leave, as all standard accounts of human capital formation underline. Because we are observing here a system that generated human capital continuously while producing a qualification only at completion, it may be that what we must categorize as a failure in terms of citizenship could simultaneously be a (partial?) success in educational terms.

Against this context of substantial rates of early exits our third empirical finding is striking: none of the guilds we explored appear to have attempted to enforce apprenticeship contracts. There is little if any sign that apprentices were being forced to return to their masters. Or that guilds were punishing those who sought to default on their contracts, despite in some cases possessing the ability to impose corporal penalties. This argues against both the positive and pernicious hypotheses of guilds influence on training. We see no evidence here that would support a positive role for guilds in sustaining training through this kind of activity (this does not rule out the possibility that they made a contribution in some other form). We also see no evidence that guilds invested in constraining workers to fulfil their contracts, preventing them from pursuing more appealing and better remunerated alternatives, as some legal authorities would in the nineteenth century. The power to supervise employment mobility was exploited by employers to force workers to fulfil contracts in some regions of Europe in the nineteenth century. Rent seeking of this kind was a feature of 'liberal' 'free' labour markets in England, but is not visible in these corporative ones. Nor, for that matter, do high rates of exit sit comfortably with the idea that apprentices were merely time-serving in order to obtain occupational credentials. In the context of the high departure rates we observe here, it seems reasonable to assume that many apprentices

must have entered training with the expectation that they were not likely to attain citizenship or guild membership. Masters in turn must have recognized this risk.

Pre-modern cities set out a normative institutional framework for work that appears on the surface to define a highly segmented labour market. Completing an apprenticeship was a key stage in qualifying for economic citizenship. Yet the practice of apprenticeship was flexible not rigid. Youths came and went. Failure rates were high. Their decisions were shaped by the opportunities they encountered and the resources they possessed, as well as the risks they faced. Guilds and cities coexisted comfortably with this. The most bureaucratic, such as Lyon and London, monitored mobility and set up systems to process exits. Most simply ignored it. In thinking through this, one obvious modern equivalent would be universities, where drop-out rates are often substantial, yet offer no strong deterrent to entry. The comparison lends itself to highlighting the two sides of this flexibility: on the one hand, dropping out can signal poor-quality provision; on the other hand, dropping out allows students to escape from bad matches to courses and careers. Lowering drop-out rates could, as a consequence, lead to poorer outcomes for individuals. The same may have applied to early modern pathways to citizenship. Rigidity and inflexibility could have deterred potential entrants or locked individuals into bad choices. This could matter particularly in a context where localized citizenship (and appalling demographics) pushed guilds and cities into the position of seeking to attract labour to meet demand, rather than simply managing larger regional or national pools of labour. As 'price takers' in sub-national labour markets, cities and guilds were obliged to operate in a way that encourage in-migration of workers. They lacked some of the benefits of scale and scope that allow national licensing regimes to generate rents for their members. We cannot measure these costs and benefits directly in the past, but two aspects of this system – the long survival of these local citizenship regimes, and the connection being drawn in recent work between flexible training systems and economic growth in the past (Kelly et al 2016) – suggest that the wider moral to be drawn would be that 'failure' has its own value in a highly mobile labour market.

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APPENDIX

Table A1: Apprentices resident with their master, Shrewsbury

Year of term	Apprentices found resident (%)	N
-1	20.0	10
0	65.4	26
1	69.6	23
2	70.6	17
3	68.4	19
4	61.9	21
5	36.8	19
6	53.8	13
7	23.5	17
8	10.5	19
9	15.4	13
Total	48.2	197

Source: see text.