Itinerant Kings

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Abstract

Rather than govern from a fixed capital, medieval European kings were itinerant. Itinerant kingship was a rational coalition-building strategy employed by relatively weak rulers in the face of potentially violent elites. To empirically explore itinerant kingship, I introduce data on the daily location of the English king from 1199 to 1547. Utilizing genealogical data for feudal barons and the timing of contested elections for bishops, I show that the king's itinerary targeted "key players" within the elite network to maintain political support. When the Early Modern "military revolution" increased the military power of the king vis-à-vis the elites, European kings adopted stationary governments.

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1 Introduction

The modern nation-state came into existence in Europe in the 16$^{\text{th}}$ and 17$^{\text{th}}$ century, and has proven to be an incredibly successful form of political organization. Today, the vast majority of the global population is a citizen of a nation-state. Acemoglu, Johnson, and Robinson (2005a) and Dincecco (2015) argue that the rise of the nation-state played an important role in facilitating the first era of sustained economic growth in Europe, and state capacity has been shown to be positively correlated with economic growth (Besley and Persson, 2011). Given the significance the nation-state plays in the modern world, it is important to understand its historical uniqueness and the factors that contributed to its emergence. Only upon doing so can we begin to parse whether its association with economic growth is correlation or potentially causal.

Prior to the development of the nation-state, military power and political authority was largely decentralized in the hands of elites (North, Wallis, and Weingast, 2009). Far from being atomized individuals, elites were tied together by strong network ties, often via kinship, which fostered mutual solidarity and created blocs of military and political power (Padgett and Ansell, 1993, Slez, 2022, Desierto et al., 2023).[1] Rulers had to work with and through this network of powerful elites to effectively govern the kingdom (Blaydes and Chaney, 2013, Angelucci et al., 2024). The ruler's political survival, and often his literal survival, required him to maintain the support of a "winning coalition" among the elites (Bueno De Mesquita et al., 2005). The military power of domestic elites, and the potential threat they posed to the ruler, was arguably the single largest inhibitor to state-building in the premodern world.

One hallmark of the nation-state is its stationary capital-based government. In contrast, many premodern rulers were itinerant. Itinerant kingship was adopted by an expansive set

[1] Benzell and Cooke (2021) and Becker et al. (2020), in different historical contexts, study how changing familial ties between elites alter alliances and thus the frequency and duration of warfare.

of European rulers who ruled over a host of different polities spanning nearly a millennium. Every king of England from the Anglo-Saxons through Henry VII (r. 1485-1509) was itinerant. The emperors of the Holy Roman Empire from Charlemagne (r. 800-814) to Charles V (r. 1519-1556) were as well. So too were the French kings of the Capetian dynasty (founded in 987) down to Louis XIII (r. 1610-1643). The same is true for the Iberian kingdoms of Aragon and Castile, Sweden, Flanders, Hungary, and a host of other European kingdoms.[2] Beyond medieval Europe, examples of itinerant rule can be found in 12^{th} and 13^{th} century Asian Empires, 14^{th} century Java, and 18^{th} century Morocco (Atwood, 2015, Geertz, 1977).

Itinerant kingship was not merely the occasional journey to escape the capital city for better hunting grounds, but a consciously adopted method of government that involved constant travel (Bernhardt, 2002, 2013). Those who traveled with the ruler numbered in the hundreds, and included the core bureaucratic departments of the royal government. At the height of his reign, England's King John, of Magna Carta fame, packed up and moved the royal government down the road an average of 220 times per year. His government, as well as those of his continental counterparts, was truly "a government of the roads and the roadsides" (Jolliffe, 1963, 140).

Itinerant rulers stand in sharp relief to stationary, capital-based rulers observed in historical settings where elites were comparatively weaker and authority was more centralized. Although Roman emperors traveled for military purposes on long campaigns, the empire was largely governed from Rome (Kelly and Hug, 2022).[3] Chinese emperors during the Ming dynasty (1368-1644) remained stationary in the imperial palace in Peking (Dabringhaus, 2011). The medieval pope oversaw and governed the Roman Catholic Church, Europe's

[2]References documenting itinerant kingship in the above mentioned medieval polities are as follows: the Holy Roman Empire (Bernhardt, 2002, McKitterick, 2011, Wilson, 2016, Leyser, 1981), France (Knecht, 2008, Hallam and West, 2019), Castile (Arias Guillén, 2013), Sweden (Strömberg, 2008), and Flanders (Vanderputten, 2011)

[3]Emperors Augustus and Hadrian stand out as the only ones "known to have travelled through the provinces for reasons entirely peaceful" (Halfmann, 2022, 280).

most sophisticated medieval bureaucracy, while seated in Rome. And in the 16^{th} and 17^{th} century, the itinerant kings of Europe abandoned their age old practice in favor of stationary governments and a more impersonal bureaucracy.

Formal models of medieval politics put coalition-building front and center (Leon, 2020, Desierto and Koyama, 2023), and the medieval world has been a testing ground for those attempting to open the black box of endogenous political legitimacy (Johnson and Koyama, 2019, Greif and Rubin, 2022, 2023). Travel is also a well known strategy of charismatic political and cultural leaders trying to influence or convince others to support their particular cause (Becker et al., 2020, 2023, Buggle and Vlachos, 2023, Assouad, 2023). In that vein, I argue that itinerant kingship is primarily a result of the king's desire to build and maintain a political coalition in the face of potential elite rivals and rebels.

In theory, the king is indifferent on the matter of adopting an itinerant court versus a stationary court as both allow him to interact with the elites of the kingdom. By hosting a stationary court, the king lowers his cost of monitoring and interacting with the elites, but at the expense of lowering their coordination costs of rebellion. When the king only has a relative military advantage over the elites, actions that lower his coordination costs make the king worse off because, even if he can monitor elites at a lower cost, he cannot enforce his will if they coordinate their actions. Thus, when elites are sufficiently strong, adopting a largely stationary court poses a real danger to the king and his optimal coalition-building strategy is to adopt an itinerant court.

I am, of course, not the first to connect itinerant kingship to the political necessities of the king. Church (2007), echoing Jolliffe (1963), writes that "the royal itinerary was a rational business entered into by a king determined ... to maintain relationships with the county communities of the land" (31). Thomas (2020) ascribes itinerant kingship as a method of "enhanc[ing] the ruler's soft power" (172). My theory takes inspiration from the above mentioned historians, but differs by explicitly focusing on coalition-building as the

essence of politics à la Bueno De Mesquita et al. (2005) and the primary motivation behind itinerant kingship. I further the historical literature, first, by elaborating explicit testable hypotheses concerning itinerant kingship, and second, by subjecting the royal itineraries to quantitative, hypothesis-focused analysis.

To derive predictions about the spatial pattern of the king's journeys, I rely on the theoretical work of Ballester et al. (2006, 2010) and Zenou (2016) by modelling rebellion against the king in a network setting. A baron's equilibrium contribution to rebellion is proportional to his Katz-Bonacich centrality within the elite network. I contend that medieval kings adopted a "key player policy" when visiting their barons. That is, a resource-constrained king concerned with mitigating potential rebellion will focus his efforts on elites who, if they were to rebel, would generate the greatest increase in total rebellious activity. Ballester et al. (2006, 2010) show that by targeting actors with high "intercentrality," as opposed to the numerous other measures of network centrality, solves the ruler's optimization problem when executing the "key player policy" — establishing a firm link between theory and measurement.

To empirically explore itinerant kingship, I introduce newly collected and geo-referenced travel itineraries of every English monarch from 1199 to 1547. The royal itineraries track the daily location of the king, which enables studying the fine-grained spatial contours of the king's travels. I pair the royal itineraries with novel, individual level data on both the secular and religious classes of the medieval elite. To causally determine whether the king's itinerary is driven by the need to maintain political coalitions, I exploit quasi-random changes in England's political landscape, focusing first on the secular elites and then on the religious elites.

To test whether the king executed a "key player policy" with respect to the potentially violent nobleman, I collect genealogical network data for the secular elite from 1199 to 1327. The temporal aspect of the network data allows me to exploit changes elsewhere in the

network as quasi-random shocks to the baron that alter his position within the elite network in a way that is exogenous to barony-level economic, political, and military developments.[4] I demonstrate that changes in a feudal baron's intercentrality within the larger elite network positively determines the length of time the king spends with the baron at his territorial barony. A one standard deviation increase in a baron's network centrality causes the king to spend nearly 50% longer at a baron's main manor.

In premodern societies, religious elites also wielded political power because of their spiritual authority, and played an important role in the secular ruler's coalition (Chaney, 2013). From 1214 to 1344, the major bishops of England were elected by their respective cathedrals, opening up the opportunity for both the king and the Archbishop of Canterbury to influence the election (Harvey, 2016). Unlike with the barons, for nearly 150 years the king had an avenue to elevate his preferred man into some of the most important political positions in the realm – an alternative mode of building a political coalition. A new bishop could only be elected upon the death of the old bishop, which serves as quasi-random variation in a location's political importance for a given moment in time. During the period of free election in England, I show the king made an effort to possibly manipulate the outcome of important elections by spending more time in cathedral cities where an election was occurring despite having no legal requirement to be present. A bishop election occurring in a cathedral city increases the number of days the king spends in the city by an estimated 95%.

When the "military revolution" in the 16^{th} and 17^{th} century gave the king an absolute military advantage over the elites (Bean, 1973, Gennaioli and Voth, 2015), the benefit of keeping elites' coordination costs high was lower because a rebellion could be more easily quashed. Partly due to their differing geography, the rate of state centralization and baronial pacification was slower in France than it was in England (Johnson and Koyama, 2014b).

[4]The identification strategy here is identical to Donaldson and Hornbeck (2016) in their work on the American transport network, and in the spirit of Benzell and Cooke (2021) in their analysis of elite kinship ties and Early Modern European conflict.

While the English state centralized and largely attained a monopoly on force with the Tudor dynasty in the 16$^{\text{th}}$ century, France remained politically fragmented and dominated by powerful nobles until the Bourbon dynasty in the 17$^{\text{th}}$ century. In congruence with my theory, the English king adopted a stationary court in the 1510s, while the French king remained itinerant until the 1640s.

The main growth-inhibiting characteristic of the premodern state, and the medieval European state in particular, has traditionally been identified as the lack of binding constraints on the ruler (North and Weingast, 1989, Acemoglu et al., 2005a,b). Royal expropriation and the arbitrary re-defining of property rights is implied to be a product of royal strength. But the king's inability to credibly commit to respecting the property rights of his subjects is properly understood as a product of his comparative weakness (Epstein, 2000, O'Brien, 2011). The core problem of the medieval state, and its main growth-inhibiting characteristic, was that the king was much too weak and the other elites were much too strong. The excessive strength of the elites and the dangers of hosting a stationary court forced the king to build a political coalition via travel, which in turn limited his ability to credibly commit to uphold his promises and rule through a more regularized government. When the "military revolution" bolstered the power of the king at the expense of the other elites, it not only led to the expansion of the state in terms of tax revenue (Gennaioli and Voth, 2015), but fundamentally altered its organization, structure, and internal politics.[5]

The remainder of the paper is organized as follows. Section (2) provides the historical background on the political economy of medieval Europe and the traveling governments of its rulers. Section (3) elaborates a political economy theory of itinerant kingship. Section (4) details the main data used in the paper, the English royal itineraries. Section (5) and Section (6) provides empirical evidence for political theory of itinerant kingship using data

[5]With respect to England's story, this paper complements Greif and Rubin (2023) by adding further quantitative evidence to the long argued idea that the Tudor dynasty was a watershed period in English constitutional history (Bacon, 1622/1998, Hume, 1777/1994).

on the secular and ecclesiastical elite respectively. Section (7) takes up the reasoning for the end of itinerant kingship in Europe. Section (8) concludes.

2 Anatomy of the Medieval Polity

2.1 The Military-Political Environment

The historical discussion that follows holds broadly for all major European kingdoms but, given the empirical focus of the paper, the illustrative details concern England. Medieval European polities were organized along broadly feudal hierarchies. The medieval polity was a network of patron-client relationships that culminated with the king. The king was the most powerful political actor in the kingdom. He nominally owned all the land within the kingdom, which he distributed out to the elites below him. The king's authority was backed up by the fact that he was the single largest land and castle holder. Royal succession in England was formally based on the rules of primogeniture. Upon the death of the king, the throne, with all of its authority, was passed to his firstborn son.

Directly below the king were the barons. There were over 250 barons of varying wealth and political authority within England. Each baron formally held his land as the king's feudal vassal. In exchange for land, barons owed the king feudal dues and military support. As they were vassals of the king, they in turn had tenants that held land of them. In exchange for agricultural labor and military service, barons provided public goods, such as protection and justice, to their tenants and those that lived on their manors. Like the king, baronial succession was hereditary, passing from father to son.

The third main class of political actors in medieval England were the bishops. England was home to seventeen ecclesiastical dioceses. The bishop of each diocese was an important political figure in medieval politics. He was the highest-ranking clergyman and was the

highest source of ecclesiastical jurisdiction in his diocese in a time when ecclesiastical courts existed alongside secular courts. Only the pope could overrule his judgements. English bishops were also secular lords, and controlled considerable tracts of land and wealth. Given their great local authority in both the spiritual and secular realms, bishops were "amongst the most powerful individuals in the realm," on par with the secular barons (Harvey, 2016).

Despite the formal hierarchy of the feudal system, the king lacked actionable authority and sovereignty over his more powerful subjects. Violence potential was distributed amongst the baronial elite. Each baron possessed potential for violence in varying magnitudes, and was accompanied by his own personal military retinue and retainers. Brown (1959) lists 327 active castles in England at any time between 1154 to 1216, most of which belonged to the barons. King (1983) has evidence of nearly 2,500 English and Welsh castles having existed at some point during the Middle Ages. In a world where economic resources often translated to violence potential, the median annual income of an English baron is estimated at £115 in 1200 and £475 in 1436.[6] During times of external war, the king would invoke his right as the feudal overlord and require the barons to supply fighting men and weapons in support of his cause. But it was often in barons' interest to turn their weapons on their fellow elites as well as their subjects.

Economic and military resources were endowed unequally amongst the baronage. Painter (1943) and Gray (1934) provide income estimates for a sample of barons in c. 1200 and 1436 respectively.[7] Figure (1) plots the distribution of baronial income and influence. In 1200, the ratio of the maximum income to the average was 4:1. By 1436, it had increased to 5:1. A baron's influence on other elites within the network, as measured by his intercentrality, was also highly unequal with a ratio of the maximum income to the average of 31:1.

The dominant military technology of the day, the fortified castle, often gave the local

[6]Using a real price index, £115 in the 13th century was £84,000 in 2017 terms. In 1436, £475 was approximately £305,450 in 2017 terms.

[7]Turchin and Nefedov (2009) discusses the inequality of the medieval European elite in detail.

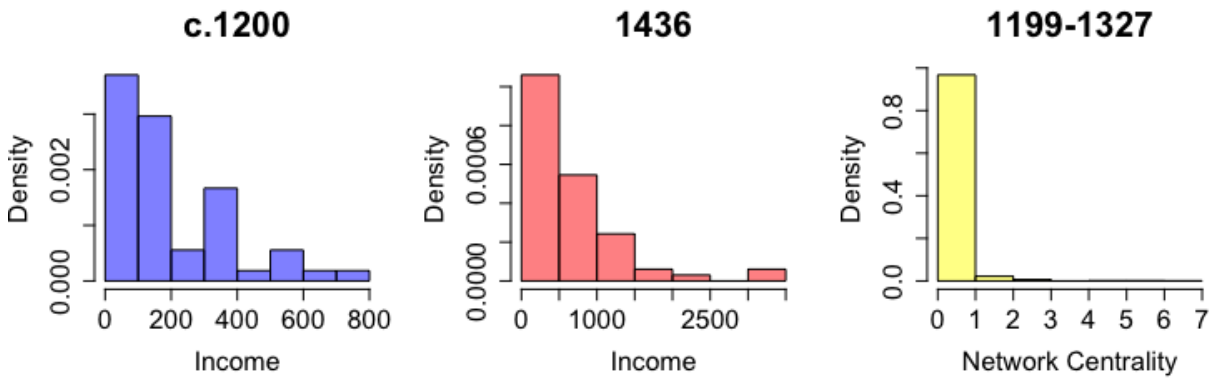

Figure 1: The Distribution of English Baronial Income and Influence

baron a military advantage over the king (Rogers, 1993, 74). A castle could be effectively defended by even a small force. Prior to the perfection of the gunpowder cannon in the late 15th century, cracking its walls would have been nearly impossible, which made besieging a castle a costly and time-consuming affair.[8] A siege involved cutting off the castle's supply lines for food and military reinforcements and waiting for surrender. The military advantage of defense, in addition to high transport costs, resulted in the decentralized governance structure (Batchelder and Freudenberger, 1983). Local barons were able to command great authority over their barony, and, for the most part, act with sovereign-like control. Although the king, or even a mighty baron, may have desired greater sovereign authority over a larger territory, the military technology of the day made it prohibitively costly.

Familial connections amongst the elite class played a pivotal role in medieval politics (Bartlett, 2020). They served as ready-made alliances amongst barons that could be called upon for military and political support. Holt (1961) says that, nine times out of ten, it is reasonable to infer a political connection from a familial connection. The corollary is that when the familial network changes, so too does the political landscape.The king understood

[8]Catapults and trebuchets were likely cost-prohibitive as a regular siege weapon. The trebuchet that King Edward I used to force Stirling Castle to surrender, Warwolf, required five master carpenters and 50 laborers three months to build (Prestwich, 1997, 502). Edward bore the cost, not because he needed it to secure the castle, but to send a message.

the importance of familial ties, and often grew suspicious of barons whose family members were in rebellion (Painter, 1961). The king was right to be suspicious — Desierto, Hall, and Koyama (2023) show that the resources available to a baron via his kin network influenced his decision to rebel against King John in 1215.

In addition to temporal wealth and authority, bishops yielded ideological weapons. If the bishops support the king, then rebellion is an act of defiance against the Church and God's divine will. On the flip side, if the bishops take a stance against the king's policies, then they provide moral legitimacy to the rebellion. When King John challenged the pope in 1208 over who should be the Archbishop of Canterbury, tension between Church and state rose to such a level that England was put under papal interdict and John was excommunicated. Warren (1973) interprets the pope's actions as an attempt to undermine John in the eyes of the secular elite and to offer their consciences cover if they decided to abandon him.

Given the strength and political authority of the barons and the bishops, the king could not rule as an autocrat. He had to rely on a coalition of supporters to effectively govern the kingdom and remain on the throne. Challenging the king would likely have spelled doom for an individual baron acting alone, but a coalition of barons could pose serious trouble. In 1154, baronial-owned castles outnumbered royal-owned castles 5:1, and even after the great demolition and confiscation campaign of the Angevin monarchs, the number of baronial-owned castles was still double that of royal-owned castles (Brown, 1959). Also, the rebel barons need not recruit every baron to their side. If a sufficient number of barons remained neutral and failed to assist the king, a small coalition of powerful elites could unravel royal authority. Frank Barlow aptly summarizes the crux of being a medieval king: "Each ruler competed with others to construct a superior network of alliances" (2000, 7). The difference between a "strong" king and a "weak" king was his ability to maintain his political coalition.

2.2 The King's Traveling Government

The medieval government of England revolved around the king and his household. As the medievalist Thomas Tout said, "The whole state and realm of England were the appurtenances of the king's household" (Prestwich, 2016, 134-5). That was as true in the 15th century just as much as it was in the 13th (Warren, 1973, Ross, 2011). By the time of Henry I, the household has clear departmental divisions, a recognized hierarchy, and specialization of duties (Barlow, 2000). At the most basic level, it served the king's domestic needs: his food and drink, his clothes, his shelter, and his ceremonial duties. The household was also the center of English government and "the political hub of the realm" (Given-Wilson, 1986). From the household sprung the king's orders to local authorities and the Exchequer in Westminster. Pleading one's case or attempting to obtain a favor from the king required traveling to and working with the household. As an extension of its administrative role, the household was the keeper and manager of royal finances. Lastly, the household contained the king's body guards, which served as his personal security detail in peacetime and the nucleus of the army when at war.

At the center of the royal household was the *domus*, the permanent component of the household bureaucracy attached to the king. Beyond the *domus* was the *familia regis*, which had no fixed membership and was in constant flux. The *familia regis* included those in attendance at the king's court for either social or business reasons. It is difficult to ascertain the number of people in each component of the household, but Given-Wilson (1986) calculates that the staff alone was 425 people. In addition to the *domus* and the *familia regis*, the king would have been accompanied by a group of lay and ecclesiastical guests, foreign emissaries, merchants, and hangers-on (Warren, 1986, Church, 2007). Even at its least populous, the king's entire entourage numbered no less than 500 (Carpenter, 2007, Crockford, 2016).

(a) Itinerary of John, 1207 (b) Itinerary of Henry III, 1238

Figure 2: Itinerant Kingship in England

Transporting the royal household was a costly undertaking. Prestwich (1997) cites a 1285-6 household account that reports 12 carts in the possession and use of the household. Masschaele (1993) estimates transport cost over land to be 1.5 pence per ton-mile, and that a medieval cart could carry about three-quarters of a ton. If we assume the king could travel about 20 miles in a single day, his daily transport cost comes out to £1, 2s, & 6p, which was the equivalent of paying a day's wage to 112 skilled tradesmen.

The king's itinerary was not planned and published in advance for all Englishmen to know (Church, 2007). As Figure (2) illustrates, the king's itinerary was a semi-planned, semi-chaotic, never-ending journey around the kingdom. The king would find lodging wherever he could, including his own manors, castles, and hunting lodges, but most of the time he stayed at monasteries, the residences of his subjects, or a camp along the road (Prestwich, 2016). The king's movements may have been planned in stages a few weeks in advance to provide the people who wished to visit the court a sense of where it could be found (Given-Wilson, 1986, Church, 2007). But unplanned stops were the norm. The king would have to be flexible to respond to the changing political winds. Even the king may not have known where he would be in a month.

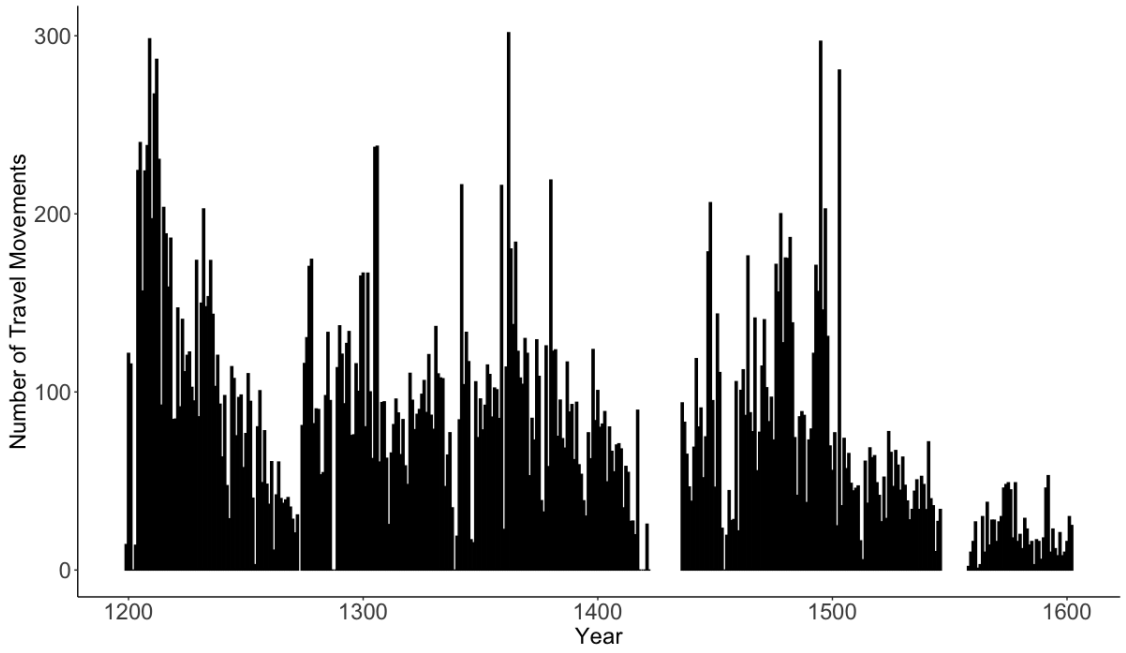

Figure 3: Number of Royal Travel Movements, England, 1199-1603

Note: Number of annual movements from 1199 to 1603. The raw number of annual movements are adjusted upwards for illustration purposes by dividing it by the number of known days in the itinerary, and then multiplying by 365. Zeros represent lack of data. See Section (4) for data details.

At the height of his reign, King John (r.1199-1216) moved about 220 times per year, which translates roughly to him changing his location every 1.5 days. His successors, although rarely matching him, traveled at an equally impressive rate. Figure (3) plots the monarch's number of travel movements from 1199 to 1603 using the royal itineraries. On average, the English king moved locations within England 62 times per year. In England, itinerant kingship came to an end in the 16^{th} century. The sharp decline in the number of movements beginning with the reign of Henry VIII (r.1509-1547) is visibly apparent in Figure (3). Henry VIII, Elizabeth I, and her Stuart successors were not itinerant like their medieval predecessors. Although they occasionally toured the kingdom on "progress" during summer months, the apparatus of government became firmly lodged in Westminster. The kings of France would lag behind, remaining itinerant until the Bourbon dynasty in the 17^{th} century. The end of

itinerant kingship is discussed in further detail in Section (7).

One way that England stands apart from the continent is its more robust history of parliamentary activity. Even then, England's medieval parliament met relatively infrequently. Prior to the reign of Henry VIII, the English parliament met for an average of 47 days out of the year.[9] In the 214 years between 1295 to 1509, parliament did not meet at all in 69 of those years. Also, the number of days the English parliament was in session declines dramatically as a king gets further into his reign (Van Zanden, Buringh, and Bosker, 2012) - the higher activity in the early years being a function of the fact that king's were often granted the right to a particular tax levy for life, necessitating renegotiation at the beginning of the successor's reign. Continental parliaments were institutionalized even later, met less frequently, and were "less vital to the government of the state" (Maddicott, 2010, 394). Although it is difficult to psychoanalyze individuals who lived 700 years ago, the pattern demonstrates the king's reluctance to summon the elites to parliament too frequently. The rationale is perhaps a product of the military power dynamics between the king and the barons (Boucoyannis, 2021, Young, 2022).

When parliaments did occur, there is evidence that the king took steps to mitigate the potential costs of calling the militarized elites all to one location. Henriques and Palma (2023) show, for 1385 to 1600, that the taxes refused by Parliament as a percentage of taxes demanded of them was 0% for England, 2.4% for Castile, and 7.3% for Portugal. This strongly suggests, without definitely proving, that medieval kings were quite shrewd in knowing when to call parliament and how to stock it with supporters. Also, in the case of England, despite the pool of potential secular and religious elites being evenly sized, religious elites consistently outnumber secular elites by wide margins in terms of who is called to parliament (see Figure (9)).[10]

[9] Author's calculation based on the data of Van Zanden et al. (2012).

[10] Pike (1894, 165) says that the number of Lords Temporal and Lords Spiritual that were eligible to be called to parliament were roughly equal since the days of Henry III, meaning it is appropriate to use raw

3 Itinerant Kingship as a Coalition-building Strategy

In 1203, when King John's military position in Normandy was worsening, he got word that Ranulf de Blondeville, the earl of Chester, and Fulk Paynel, the baron of Bampton, were planning on withdrawing their allegiance to him. In response, Dalton (2008) reports that "John traveled to the earl's castle of Vire, and on the following day Fulk and the earl appeared before the king and reaffirmed their allegiance to him." This story is only one anecdote, but it points toward a theory of itinerant kingship that is centered around politics and maintaining political support.[11]

The desire to stay in office "shapes the selection of political institutions" and "influences the very evolution of political life" (Bueno De Mesquita et al., 2005, 8-9). The desire to stay in office is even more applicable to the medieval world given that it coincides with the desire to stay alive. Thus, itinerant kingship can be viewed as a survival strategy that facilitated the creation and maintenance of a winning political coalition.

Bueno De Mesquita et al. (2005) develop a model of coalition-building and political survival that translates well to the politics of medieval Europe. They define the kingdom's "selectorate" as being comprised of individuals that have the power or right to select the personage of the crown. The incumbent king has the explicit support of a proportion of the selectorate, his winning coalition, that is sufficiently large in terms of numbers or military capability to endow him with power. A challenger arises from within the selectorate and proposes his alternative winning coalition along with a set of potential tax rates and policy proposals. The incumbent is forced to do the same, even if he merely proposes the status quo. The members of the selectorate then choose between the challenger and the incumbent. The incumbent is removed and the challenger ascends the throne if and only if the challenger

counts (see also Greif and Rubin (2023)).

[11] Holt (1961) cites further examples during King John's reign. For example, the king's prompt, targeted visitations to barons in northern England, a hotbed for revolt, "prevented open rebellion" in 1212 (84).

receives the support of his coalition and the incumbent king fails to maintain the support of each of his coalition members. This model of a rebellion is largely in line with the major rebellions against John, Henry III, Edward II, Richard II, and the War of the Roses.

3.1 Rebellion in a Network Setting

Selectorate Theory as developed by Bueno De Mesquita et al. (2005) provides us with a framework of the king's core problem and the stylized sequencing of a rebellion, but it sheds little light on which elites are more likely to lead or join a rebellion. Following Ballester et al. (2006, 2010) and Zenou (2016), I model rebellion against the king in a network setting with strategic complementarities in rebellious effort.[12] The goal here is not to model all aspects of rebellion in a network setting (for that, see Naidu et al. (2021)), but to fix ideas about the network characteristics of potential rebel leaders.

Consider a game where $N = \{1, ..., n\}$ is a set of elites in network $\mathbf{g}$. We can represent network connections by a graph $\mathbf{g}$, where $g_{ij} = 1$ if elite i is directly connected to elite j, otherwise $g_{ij} = 0$.[13] We denote by $\mathbf{G}$ the $n \times n$ adjacency matrix with entry g_{ij}, which orders all direct connections. Elites i and j share their knowledge and resources if and only if $g_{ij} = 1$. In the face of some exogenous trigger, each elite i must decide how much effort to exert in rebellion against the king, denoted by y_i. The utility of each elite providing effort y_i in network $\mathbf{g}$ is:

$$u_i(\mathbf{y}, \mathbf{g}) = \alpha_i y_i - \frac{1}{2} y_i^2 + \phi \sum_{j=1}^{n} g_{ij} y_i y_j, \tag{1}$$

where ϕ is the intensity of connections and $\mathbf{y}$ is an n-dimensional vector of rebellious efforts.

An elite's utility as defined by equation (1) has an individual component, $\alpha_i y_i - \frac{1}{2} y_i^2$,

[12] In what follows, I adopt the notation of Zenou (2016).

[13] Network connections are assumed to be symmetrical: $g_{ij} = g_{ji}$.

and a network component, $\phi \sum_{j=1}^{n} g_{ij} y_i y_j$. The marginal benefit of engaging in rebellious activity is given by $\alpha_i y_i$, which is increasing in own effort. α is the exogenous heterogeneity of elite i that captures such things as his age, his personal fighting ability, the productivity of his barony, etc. The second part is the local-aggregate effect of his peers. Because there are strategic complements, the greater the number of connections elite i has, the greater the marginal utility of providing his own rebellious effort will be.[14]

In equilibrium, each elite maximizes his utility, and the best-reply function for each elite is given by:

$$y_i = \alpha_i + \phi \sum_{j=1}^{n} g_{ij} y_j, \tag{2}$$

Ballester et al. (2006) show (Theorem 1 and Remark 1) that an agent's Nash-equilibrium level of effort is equivalent to their weighted Katz-Bonacich centrality, a measure of the elite's centrality within the network:

$$\boldsymbol{y}^*(\boldsymbol{g}) = \sum_{k=0}^{\infty} \phi^k \sum_{j=1}^{n} \boldsymbol{G}_{ij}^k \tag{3}$$

In network terminology, a "walk" is a sequence of edges and vertices in a network that can start and end at any vertex and can repeat vertices and edges. The Katz-Bonacich centrality counts the number of all walks of length k in G starting from i, where the walks of length k are weighted by the decay factor ϕ^k. Thus, we can decompose Katz-Bonacich centrality into the sum of all walks from i to i (loops) and of all the outer walks from i to every other node $j \neq i$:

$$b_i(G, \phi) = m_{ii}(g, \phi) + \sum_{j \neq i} m_{ij}(g, \phi) \tag{4}$$

In common parlance, Katz-Bonacich centrality "captures the influence an agent has not only on her friends, but on their connections, and so forth, with decreasing weight as one moves further away from the agent" (Jackson et al., 2017, 77). The theoretical relationship

[14]This is a game of strategic complements because $\frac{\partial^2 u_i(\mathbf{y},\mathbf{g})}{\partial y_i \partial y_j} = \phi g_{ij} \geq 0$.

between an agent's equilibrium level of effort and his Katz-Bonacich centrality has been shown to hold empirically in a number of political settings (Cruz et al., 2017, Battaglini and Patacchini, 2018, Naidu et al., 2021).[15]

3.2 Adopting an Itinerant Court

Before considering who the king might target to cut short potential rebellion, we need to first consider the dominant mode he might adopt in his interactions with elites. Maintaining a winning coalition involves meeting with coalition members. To do that, the king has two options between which he will, in theory, be indifferent. The first option is to call the elites to a stationary court in the capital city.[16] The second is to visit the elites independently in their own territories. Both allow the king to meet with the elites personally to monitor them and maintain good rapport.

The two key variables the king needs to balance are his cost of monitoring the elites and the elites' coordination costs of rebellion. By traveling to each elite independently, the king raises the coordination costs of would-be rebels at the expense of having to bear higher monitoring costs himself. Inversely, adopting a stationary court lowers the king's monitoring costs but also lowers the elites' coordination costs.[17] Thus, the king faces a trade-off between taking actions that lower his monitoring costs and actions that keep the coordination costs of rebellion sufficiently high.

When the king only has a relative military advantage over the elites, actions that lower their coordination costs make the king worse off. Even if he can monitor elites at a lower cost, he cannot enforce his will if they coordinate their actions. But when the king has an absolute

[15] In the case of rebellions, revolution, and coups, this theoretical and empirical result largely aligns with the ideas put forth by Tullock (1971).

[16] Whether calling the elites to the capital takes the form of a parliament or a stationary court like Louis XIV's palace at Versailles is irrelevant to the theory and outside the scope of this paper.

[17] The days leading up to the Revolution of 1258 against England's Henry III is a good example of barons using parliament to coordinate rebellion (Carpenter, 2020, 679-698).

military advantage over the elites, the ultimate benefit of keeping elites' coordination costs high is lower because a rebellion can be easily quashed. Thus the king's optimal coalition-building strategy depends on his military strength vis-à-vis the elites:

> **Prediction 1:** When the king's military advantage is relative, itinerancy is the king's optimal strategy for coalition-building. But when the king's military advantage is absolute, a stationary court is the king's optimal strategy.

3.3 The King's Key Player Policy

Given the king adopts an itinerant lifestyle, and given scarce time and resources, he needs to choose which elites he will target in his efforts to ensure their support and loyalty. The king's problem is to reduce the total level of potential rebellion by optimally visiting and spending time with the right elite actors. We can denote the total equilibrium level of rebellion in network g, given some exogenous trigger, by:

$$Y^*(\boldsymbol{g}) = \sum_{i=1}^{n} y_i^* \tag{5}$$

Thus, the king needs to solve:

$$\max\{Y^*(\boldsymbol{g}) - Y^*(\boldsymbol{g}^{[-i]}) | i = 1, ..., n\} \tag{6}$$

The king's optimal coalition-building strategy is what Ballester et al. (2006, 2010) call the "key player policy". In the face of potential rebellion and scarce resources, the rational king targets the "key player" within the elite network — the elite "who once removed from the network generates the highest decrease in total activity" (Zenou, 2016, 245). Ballester et al. (2006) show (Theorem 3 and Lemma 1) that the key player i^* who solves Equation (6) is the agent in the network with the highest intercentrality, a nonlinear transformation

of Katz-Bonacich centrality. Intercentrality is the ratio of the square of the number of walks leaving agent i (the Katz-Bonacich centrality) to the number of walks returning to i:

$$c_i(g, \phi) = \frac{b_i(G, \phi)^2}{m_{ii}(g, \phi)} \tag{7}$$

Intercentrality captures how central an elite is within the network, as well as how much he contributes to the centrality of others. Although Katz-Bonacich centrality measures how central an elite is within the network (and his equilibrium level of effort), it does not measure how much he contributes to the centrality of others. In other words, the Katz-Bonacich centrality measure does not internalize all the network externalities that elites exert on each other, which are important to the king in formulating the solution to the key player policy. Thus:

> **Prediction 2:** The king's itinerary will privilege visiting "key barons" over lesser barons, as measured by their intercentrality.

4 Itineraries of Medieval English Kings

The royal itineraries provide daily data on the location of the English king from 1199 to 1603. The itineraries were assembled by a number of independent academic historians, each subject-matter experts on the reigns of individual monarchs.[18] Table (3) provides the sources of the itineraries for every English monarch from 1199 to 1603, spanning the reigns of John to Elizabeth I. [19] For a few of the kings I have multiple sources. I default to using the

[18]The main primary source underlying the itineraries is often the English Chancery rolls. When a king issued a writ, a copy would be created and eventually stored in one of the Chancery's many rolls. Importantly, the document would include the date of its issuance and the location where the king issued it. Other primary sources often include the accounts of the household wardrobe, the privy seal, and the secret seal.

[19]The itineraries for English kings prior to John do exist, but they are too sparse for the analysis in this paper. For the interested reader, the itineraries of the early Norman kings are: William I (Bates et al., 1998), William Rufus (Barlow, 2000), Henry I (Christlelow, 1996), Stephen (Cronne and Davis, 1968, Helmrichs, 1995), Henry II (Vincent, 2021), and Richard I (Landon, 1935).

most recent publication, and only use earlier sources when more recent scholarship contains a gap in coverage. For example, Edward I's itinerary compiled by Kanter (2011b) contains a large gap in the middle of his reign.[20] I thus supplement it with Safford (1974), which Kanter (2011b) uses as one of her sources in her version of Edward I's itinerary.

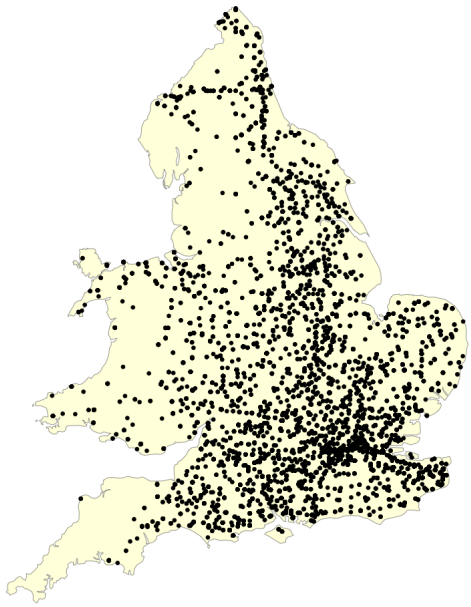

Figure 4: Locations visited by the king, 1199-1547

England provides the ideal test case for understanding the rationale behind itinerant kingship because concerns about outside international issues that might drive royal travel are smaller compared to kingdoms in continental Europe. England's island geography made the distinction between "domestic" and "international" politics more salient than it was on the continent. In contrast to medieval France, with a few exceptions, the official authority of the royal government ran throughout England. With due account of Scotland and Wales, it is easier to assume that royal travel within England reflects domestic concerns rather than "international" ones. Also, medieval England's major conflicts with continental powers

[20]The reason for this will be familiar to us all — the scarcity of time. Julie Crockford (née Kanter) writes in her doctoral dissertation: "Given restraints of time, it has not been possible to analyse every year in the reigns of John, Henry III and Edward I" (Kanter, 2011a, 70)

mostly occur on the continent, which makes it comparatively easier to track the difference between peaceful itineration and military movements.

The itineraries vary in their coverage of the king's daily location, ranging from 366 known days in 1520 to 20 known days in 1380. Most years however are relatively comprehensive. Between 1199 and 1619, the mean number of days where the king can be located is 267 and the median is 304.[21] From 1199 to 1326, the years that comprises the main econometric analysis in Sections (5) and (6), the mean number of days where the king can be located is 302 and the median is 315. See Figure (10) for the annual number of days the king can be located using the itineraries. To control for variation that arises due to the itineraries' coverage, I construct a variable that measures the annual number of days with a recorded location in the itineraries.

5 Royal Travel and Political-Kinship Networks

5.1 Data on English Feudal Barons

5.1.1 Barons and barony locations

Sanders (1960) provides a compendium of the owners of 208 English feudal baronies from 1066 to 1327, yielding a total of 2714 baron-barony dyads during the entire period.[22] Given the fact that the English royal itineraries begin in 1199, I limit the list of barons to those alive and in control of their barony at some point between 1199 to 1327.

Matthew Paris, a 13$^{\text{th}}$ century English chronicler, reports that in 1257 Henry III knew the names (and thus presumably, the locations) of 250 English baronies (Carpenter, 2023). Paris' report is assuring for two reasons. First, it shows that the king was likely up to speed

[21] There is no itinerary for 1273, as Edward I was on Crusade in the Holy Land. Also, there are no itineraries for 1423-1435 during the early years of Henry VI's minority. He would have been ages 1 to 14.

[22] To the best of my knowledge, equivalent data on barons and the *exact* location of their baronies for other time periods or European countries does not exist.

on the baronies within his kingdom. It is not a large leap to reason that he also knew the details of their owners, the baronial elite. Second, the sample of baronies known to us today comprises slightly over 80% of the total known to the king. Figure (5) maps the sample of baronies with no obvious spatial clustering or holes.

The main variable of interest is the number of days the king spends at a given baron's territorial barony. Because the territorial extent of the baronies is lost to history, I rely on the location of the barony *caput*, the barony's main manor, provided by Sanders (1960). Using the royal itineraries, I calculate the number of days in a given five-year period that the king is within 8 km ($\approx$ 5 miles) of a given barony *caput*. Such a restrictive definition of a visit allows me to know that it was the barony *caput* the king intended to visit rather than some other nearby attraction. I also create a binary variable that measures whether or not the king was within 8km of the barony *caput* at least five times during the five-year period.

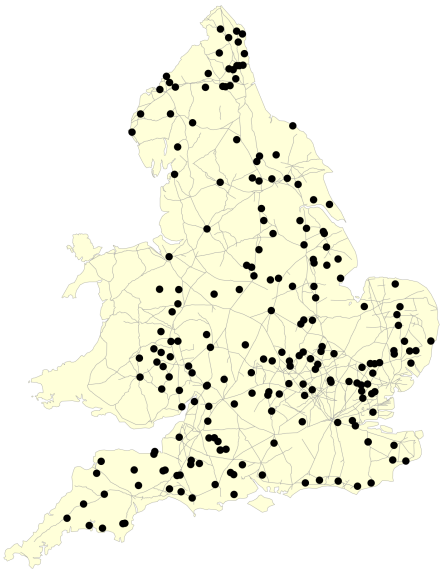

Figure 5: English Feudal Barony *Caputs*
Source: Sanders (1960)

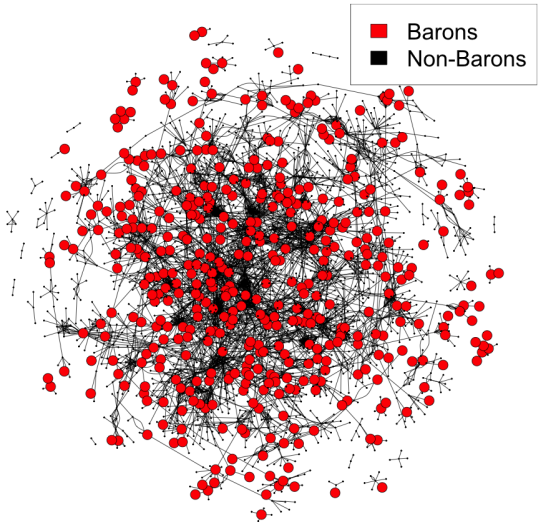

Figure 6: Network of English Elites, 1251-1255
Note: Barons are red, and non-barons are black. Non-barons are suppressed to highlight the shape of the network.

5.1.2 Baronial network data

The Sanders (1960) barons were matched manually to their respective entries on the online, genealogical repository Wikitree.com.[23] I rely on the "Early English Feudal Baronies" category, which is based on Sanders (1960). The underlying geneological data is similarly sourced to that used by Cummins (2017) and Becker et al. (2020), and is based on Sanders (1960), Keats-Rohan (2002), Cokayne et al. (2000), and Burke (1881). The "Early English Feudal Baronies" Wikitree project is largely spearheaded by Andrew Lancaster, a historian of medieval genealogy (2007, 2009, 2010, 2019, 2020).

Using the data from Wikitree, I construct England's entire elite network for the years 1199 to 1327, divided into five-year intervals. Five-year time periods are used to avoid the problem of birth and death year heaping in Sanders (1960) or the Wikitree.com entries. Importantly, the nodes in the constructed network are not only the feudal barons, but other non-baronial elites (baron's mothers, sisters, younger brothers, third sons, etc.), which allows accurate mapping of the nuanced contours of the kinship network.[24] As an example, Figure (6) depicts the elite network that existed from 1251 to 1255.

For each five-year time period, I calculate each baron's intercentrality. To estimate intercentrality, we need a plausible estimate of the decay parameter ϕ. I follow Naidu et al. (2021), at the suggestion of Bonacich (1987), in limiting ϕ in the range of $(0, \frac{1}{\lambda})$, where λ is the largest eigenvector of adjacency matrix $\mathbf{G}$. Because of the temporal dimension exploited for identification, I calculate the largest eigenvector for each time period's network, and choose the smallest one to ensure each time period's centrality estimates are compliant with the above mentioned rule. That eigenvector is 18, thus allowing for a range of ϕ of (0, 0.05). For a baseline estimate of ϕ, I use data on the 1215 rebellion against King John from

[23] For an example, see the entry for William Marshal (1146-1219): www.wikitree.com/wiki/Marshal-4.

[24] I was able to extract network information for 7365 elites who were alive at some point between 1199 and 1327.

Desierto, Hall, and Koyama (2023), estimating the effect of a baron's position in the network vis-à-vis the rebels and his participation in the rebellion.[25] I estimate ϕ in 1215 to be 0.022, as shown in Table (4), well within the required range. All specifications below relying on intercentrality assume ϕ equals 0.022, but results are robust to other magnitudes of ϕ.

5.1.3 Additional Data

Royal charter witness lists: Due to their role in the royal government, administrative or personal, many barons traveled with the king and his court. Being in the regular presence of the king and his government offers a minor baron a way to elevate himself within the realm (Jolliffe, 1963, 175). If most of the king's travel companions were less well-connected barons, the king would only need to visit the higher-ranked, more well-connected barons, mechanically biasing the results in favor of the key players. Additionally, a baron traveling with the king is an alternative way for the king to fold him in to his coalition. To account for these issues I rely on the royal charter witness lists to estimate how often a baron traveled with the king.

When a royal charter was issued, it was witnessed by a few of the barons and bishops in the king's vicinity. The royal charter witness lists thus allow us to track which barons were in the vicinity of the king over time (Maitland, 1893). Given the process by which a baron came to appear on the witness list, repeated appearance serves as a proxy for the amount of time the barons traveled with the king. The witness lists record the men who witnessed the charter, not the recipient. Additionally, the recipient of a charter cannot be a witness to his own charter. If a baron is more likely to be a recipient than be a witness to a charter when the king is visiting him in his barony, the baron should not appear on the witness list when the king is at his barony. Thus a baron's appearance on the witness list is more likely when he is traveling with the king as opposed to being at his home. Thus, I use the number

[25]Naidu et al. (2021) employ this same strategy in determining their baseline estimate of the decay parameter.

of unique days a baron appears on the royal charter witness lists as proxy for how often a baron traveled with the king in a given time period.

This link between appearance on the witness list and traveling with the king only holds when the chancery traveled with the king. Huscroft (2001) argues that the link is broken near the end of Edward I's reign right around the turn of the 14^{th} century. For that reason, I only rely on the royal charter witness lists for the years 1216 to 1307 (Morris, 2001, Huscroft, 2000).

Barony-level, time-varying data:

Baron-level productivity and markets. — To control for alternative reasons the king may visit a barony, I collect data on the number of markets and fairs from Letters et al. (2003). Markets and fairs are matched to their respective barony using a buffer of 20km radius around the barony *caput*, which corresponds to the area the king could legally purvey goods for his household consumption (Given-Wilson, 1986). Additionally, I construct a time-varying estimate of the value of historical agricultural output at the barony level. Historical yields at the manor level for wheat, barley, rye, and oats from Campbell (2007) are spatially interpolated and values of each are extracted at the barony level as the medieval manors used by Campbell (2007) are not the same as the Sanders (1960) barony *caputs*. The individual crop yields are indexed using the crop share weights from Broadberry et al. (2010) and multiplied by grain prices from Clark (2004).

Locations associated with the royal government. — Royal boroughs were boroughs (towns with a market) that were under the direct administration of the king. If royal itineration is about routine governance and the administration of royal lands, the king should visit regions where there are more royal boroughs more often. The location and administrative status of English boroughs comes from (Angelucci et al., 2022). For each five-year period, I calculate the number of royal boroughs within a 20km radius of each barony.

Battles and potential war paths — To control for travel near baronies that were on the

king's way towards battles with the Welsh, Scottish, or French, I calculate the least cost travel path from London to each battle in a given time period. Battles occurring in England, Scotland, Wales, or France are from Kitamura (2021).

5.2 Empirical Strategy and Main Results

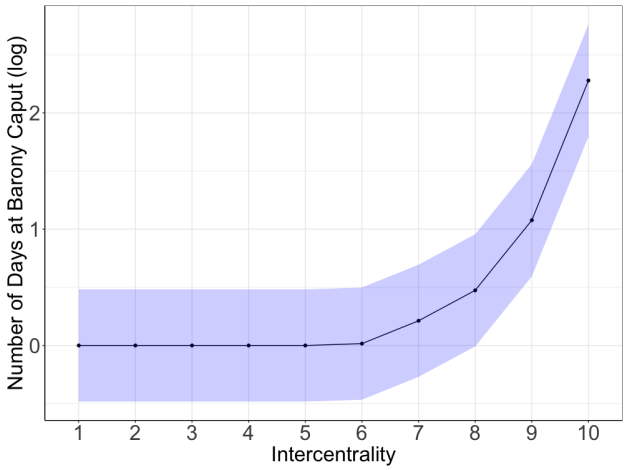

Figure 7: Royal Visitation by Deciles of Intercentrality

In this section, I empirically test the theory that the king will target key players within the elite network by visiting barons in proportion to their intercentrality. Figure (7) plots royal visits to baronies broken down by deciles of the respective barons' intercentrality. As predicted, the king privileges visiting key barons over less central barons.

To further explore the relationship between royal visitation and a baron's intercentrality, I estimate the following specification on a baron-barony-time panel:

$$\text{Days at Barony}_{i,t} = \theta_i + \gamma_t + \beta_1 \text{Intercentrality}_{\text{i,t}} + \eta \mathbf{I'_{i,t}} + \gamma \mathbf{K'_{k,t}} + \varepsilon_{i,t} \tag{8}$$

Where *Days at Barony* is the number of days the king is within 8 kilometers ($\approx$ 5 miles) of baron i barony k in a given time period t. As discussed above, the main explanatory variable is the network intercentrality of baron i. $\mathbf{I'_{i,t}}$ is a vector of time-varying, baron-level

controls, and $\mathbf{K'_{k,t}}$ is a vector of time-varying, barony-level controls. In all specifications, I also include baron-barony dyad fixed effects, θ_{ik}, to account for time-invariant unobservables unique to each baron-barony dyad as well as time-period fixed effects, γ_t to account for time-varying shocks common to all.

Variation in a baron's intercentrality stems from two sources. First, there is variation that is within the (semi-)direct control of the baron, namely the number of his direct connections (the size of his nuclear family). Importantly, the network data used here does not track the timing of a baron's marriage, so marriage is not a source of variation in a baron's intercentrality. Second, variation is a product of changes elsewhere in the elite network as a result of birth and death. It is this second type of variation that I exploit because changes elsewhere in the network serve as random shocks to the baron that are out of his control and exogenous to barony-level economic, political, and military developments. To account for the first type of variation, I control for a baron's family size in all specifications.

In network settings, clustering standard errors at the subgraph level of the network is most appropriate. This is akin to clustering standard errors using a spatial unit, but translated to the network setting. I follow Naidu et al. (2021) in implementing a fast-greedy community detection algorithm to identify natural network clusters or "communities." In all relevant specifications, I report standard errors clustered at the fast-greedy community level.

Table (1) reports the estimated effect of a baron's intercentrality on royal visitation to the barony *caput* with and without the full set of controls for the years 1216 to 1307. The results are consistent with the theory that the king uses his travel to maintain his political coalition and execute a key player policy. Column (1) shows results for the most parsimonious specification, controlling only for the baron's family size. Column (2)-(4) add baron and barony-level, time-varying controls sequentially. All columns include baron-barony dyad and time period fixed effects. The results are statistically significant at the 5% level, and the magnitudes are stable across different specifications. In the most restrictive specification,

Table 1: Baron's Intercentrality and Royal Visitation, 1216-1307

	Days Spent at Barony			
	(1)	(2)	(3)	(4)
Intercentrality	0.3993**	0.3960**	0.4147**	0.3709**
	(0.1750)	(0.1760)	(0.1791)	(0.1712)
Family Size	-0.1260	-0.1321	-0.1375	-0.1301
	(0.0861)	(0.0890)	(0.0895)	(0.0970)
Days on Witness List		0.0045	0.0046	0.0051
		(0.0052)	(0.0050)	(0.0052)
Barony on Battle Path			0.6898**	0.7077**
			(0.3042)	(0.3034)
Full Controls				✓
Baron-Barony Dyad FE	✓	✓	✓	✓
Time Period FE	✓	✓	✓	✓
Observations	1,054	1,054	1,054	1,054
Pseudo R^2	0.66404	0.66450	0.66668	0.66981

Note: Estimates of the effect of a baron's intercentrality on royal visitation, as measured by the number of days the king spent within 8km of the baron's barony *caput*. Each column includes baron-barony dyad and time period fixed effects. The baron or barony time-variant control variables include: the baron's family size, the number of days he appears on the charter witness lists, whether the barony was on the travel path from London to a historical battle, the network distance between the baron and the king, the number of markets and fairs within 12km of the barony, and the number of royal boroughs within 12km of the barony. Robust standard errors clustered at the fast-greedy community level are reported in parentheses. *Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

column (4), a one standard deviation increase in a baron's intercentrality translates to the king spending approximately 45% more days at his barony *caput*.

The main results reported in Table (1) prove robust to a number of alternative specifications, parameters, and definitions. With respect to the dependent variable, I show in Table (A.1) that the results are robust to using a larger buffers around the barony which defines a royal visit to the barony *caput* (16 and 32 kilometers).

In terms of the independent variable, I show in Figure (A.1) that results are robust to varying the size of the weighting parameter on close versus distant connections (ϕ) that

defines the magnitude of intercentrality. Table (A.4) reports equivalent tests for other measures of network centrality. Measures of network centrality are of two broad types: those that measure information flows and those that measure prestige or influence. Measures designed to estimate information flows (Degree centrality, betweenness centrality, and closeness centrality) yield null or extremely small effects. This bolsters the idea that the king cares about a baron's influence or prestige within the network, rather than mere connectedness.

Katz-Bonacich centrality and Eigenvector centrality, alternative measures of a node's prestige in the network, do yield statistically significant and meaningful results, as reported in Table (A.4). That is not surprising as intercentrality is a non-linear transformation of Katz-Bonacich centrality and eigenvector centrality is a special case of Katz-Bonacich centrality where $\phi = 1$. But, for the reasons discussed above in Section (3.3), I maintain that intercentrality is the theoretically preferred estimate of centrality in this case.

Also, despite the timing of marriage not being an explicit source of variation in a baron's intercentrality here, there may be potential concerns about picking up such sources of variation through back channels. To assuage such concerns, Table (A.2) reports similar estimates to those above where intercentrality is calculated using versions of the network where a baron's spouse are "severed" as direct connections.

As seen in Column (4) of Table (1), controlling for the number of markets and fairs —- a proxy for the potential taxable goods at the barony —in the vicinity of the barony does little to change the estimated point estimate. To further provide evidence that a barony's economic productivity is not a confounder, I control for a barony's historic grain value, as reported in Table (A.3), with similar results.

It is difficult to determine, but the estimates reported in Table (1) of a relationship between a baron's intercentrality and the frequency of royal visits may be biased downwards. The theory laid out in Section (3), argues that the baron's position within the elite network and his status as a key player are important determinants of being visited by the

king. Although it is likely that kin connections are the most important connections, the elite political network is not perfectly synonymous with the elite kin network. Personal connections between barons were forged in service of the royal government at home and abroad, not to mention the bond that battle often forges between warriors. The importance of those unobservable connections is of course difficult to measure, but in theory they are not meaningless.

6 Royal Pressure on Ecclesiastical Elections

6.1 Data and Identification

To further test the idea that the king's itinerary was driven by coalition-building, I exploit a unique period of English secular-church politics. Prior to 1214, ecclesiastical elections were dominated by the king. Although the king lacked the *de jure* right of direct appointment, the terms and mode of bishop elections so favored the king that he could make *de facto* appointments. One of King John's concessions to Rome in a bid to end the interdict over England in 1214 was giving the local cathedral chapters in England the liberty of freely electing their own bishops. Despite the technical freedom of election, the English kings of the 13^{th} and early 14^{th} century were able to influence the outcomes of local ecclesiastical elections. But the pope and the Archbishop of Canterbury also had a similar power of influence. As a result, bishop elections were contested affairs. In 1344, for reasons largely unrelated to English-Roman relations, all English bishops began to be appointed by the pope.

Thus from 1214 to 1344, the king was able to influence the elections of bishops, and given the importance of the bishops in English politics, the king would have been willing to invest a significant amount to ensure that his preferred candidate was elected. If he could secure

his preferred candidate in office, something that he could not so cheaply do with the feudal barons, he could add another elite player to his political coalition and extend his influence in both secular and church politics. And, in theory, traveling to maintain loyalty and traveling to elevate known loyalists in to positions of power yield identical results.

England was home to 17 ecclesiastical dioceses, each centered around a cathedral city.[26] The cathedral acted as a base for the spiritual and administrative actions of the elected bishop. Each cathedral was staffed by a number of clergy, and one of their duties was to elect the bishop of their diocese. During the era of free election, upon the bishop's death, the cathedral clergy and monks held an election to choose his successor. Their choice would then have to be given royal assent via a royal writ and approved by the archbishop (or in the case of archbishop elections, the pope). Importantly, the king was not formally required to visit the cathedral city during the election process for administrative or ceremonial reasons.[27] The enthronement of the newly-elected bishop in his cathedral, the formal ceremony that marked the end of the process, was performed by the Archbishop of Canterbury, whose right it was by historic custom (Harvey, 2016, 45).

The king had a number of different carrots and sticks that he could use to influence the ecclesiastical elections. Generous gifts and favors directed to the cathedral and its members were commonplace during an election period (Harvey, 2016, 83). The king also used his power to appoint monastery priors that were sympathetic to his cause as a way to pack the election council. He also used his physical presence at a cathedral city to "put pressure on the cathedral monks who would make the election" (Carpenter, 2020, 204). Carpenter (2020) recounts the king using such a strategy in the Winchester election of 1238 and again

[26]The dioceses are: Bath & Wells, Canterbury, Chichester, Coventry & Lichfield, Ely, Exeter, Hereford, Lincoln, London, Norwich, Rochester, Salisbury, Winchester, Worcester, Carlisle, Durham, and York. In the bishopric of Conventry & Lichfield, the bishop resided in Coventry beginning in 1102. In the bishopric of Bath & Wells, the bishop was in Wells beginning in 1090.

[27]The formal rules and step-by-step process of English ecclesiastical elections, including the roles and responsibilities of all parties involved, are detailed in Harvey (2016).

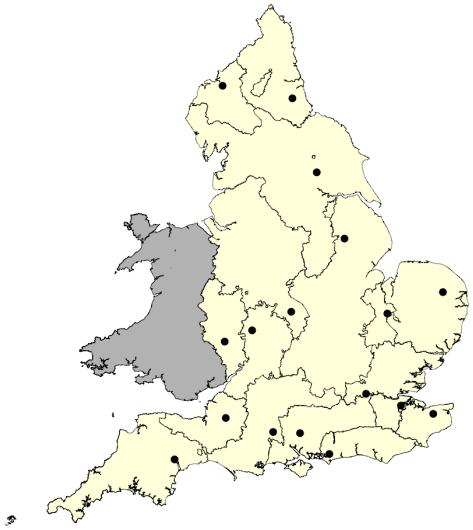

Figure 8: English Cathedral Cities and Ecclesiastical Dioceses

in 1250. The line between pressure and intimidation was a fine one. In the 1238 Winchester election, the king harassed the monks in their chapter house and destroyed the possessions of the bishopric (Carpenter, 2020, Harvey, 2016).

To study bishop elections more systematically, I collect data on the timing and location of English bishop elections from 1214 to 1500, encompassing both the eras of free capitular election and papal provision. The relevant data is from Harvey (2016) and the *Fasti Ecclesiae Anglicanae* (Horn, 1962) for the respective eras. Beyond the timing of the bishop elections or appointments, Harvey (2016) provides information on whether the electing cathedral was made up of secular canons, individuals who did not renounce their own private wealth.[28] Campbell (2008) provides the level of ecclesiastical wealth for each respective cathedral city. To account for the recurrent outbreaks of Bubonic plague in the 14^{th} and 15^{th} century which may have dissuaded royal visitations, I control for whether or not a cathedral seat experiences the plague in a given year.[29] As in Section (5), I calculate the city's least-cost travel path

[28]They were the cathedrals at Chichester, Exeter, Hereford, Lichfield, Lincoln, London, Salisbury, Wells and York.

[29]Plague outbreak data is from Biraben (1975). There are no known plague outbreaks in England prior

distance to London as a proxy of the cost borne by the king of visiting the city.

6.2 Main Results

The elevation of a new bishop occurred upon the death of the previous bishop. Thus, spatial and temporal variation in bishop elevations are plausibly exogenous to other local conditions that may draw the king to a cathedral city. To explore the relationship between the occurrence of a bishop elevation on royal visitation, I estimate the following specification on a city-year panel:

$$\text{Days Spent at Cathedral City}_{\text{i,t}} = \delta_i + \eta_t + \beta_1 \text{Bishop Elevation}_{\text{i,t}} + \lambda \mathbf{C}'_{\mathbf{i}} + \varepsilon_{i,t} \qquad (9)$$

Bishop elevation is equal to one if an election or appointment occurred in a given cathedral city in a given year. From 1217 to 1344, elevation is synonymous with a cathedral election occurring, and from 1344 onwards, it is synonymous with a bishop being appointed by the pope. The independent variable is defined as the number of days the king spends within 8km of a cathedral city in a given year. $\mathbf{C}'_{\mathbf{i}}$ is a vector of cathedral city controls. I also include time fixed effects, η_t, and cathedral city fixed effects, δ_i, to control for both time-varying shocks common to all cathedral cities and time-invariant unobservables unique to each city.

Poisson estimates of Equation (9) are reported in Table (2). Columns (1)-(3) report the effect of a bishop election on the length of the king's stay at a cathedral city from 1214 to 1344. All specifications for 1214 to 1344 suggest a bishop election occurring in a cathedral city is an important driver of the king's choice of where to visit and his length of stay. The magnitude of the main variable of interest is relatively stable as additional controls and city level fixed effects are added. In the specification with full controls and fixed effects, column (3), the estimated effect of a bishop election occurring in a cathedral city increases on the

to the Black Death in the 1340s.

Table 2: Royal Visits and Bishop Elevations, 1214-1500

	Days at Cathedral City					
	1214-1344			1344-1500		
	(1)	(2)	(3)	(4)	(5)	(6)
Bishop Elevation	0.6943***	0.5755***	0.6719***	-0.0117	0.2456	0.1736
	(0.1856)	(0.1375)	(0.1448)	(0.3009)	(0.3806)	(0.3858)
Travel Cost to London	-2.148***	-1.717***		-2.663***	-2.304***	
	(0.1741)	(0.2162)		(0.1885)	(0.1095)	
Elevation Method	Election	Election	Election	Papal	Papal	Papal
Year FE's	✓	✓	✓	✓	✓	✓
City Controls		✓	✓		✓	✓
City FE's			✓			✓
Observations	2,091	2,091	2,091	2,346	2,346	2,208
Pseudo R^2	0.61621	0.73894	0.81739	0.69241	0.82852	0.84863

Notes: Poisson estimates of the causal effect of a bishop elevation on the number of days the king spent within 8km of the cathedral city, the bishop's base of operation and location of elections. In columns (1)-(3), elevation corresponds to a local election, while in columns (4)-(6) it is a papal appointment. Cathedral city level controls include the length of the seat's vacancy (for elections only), whether it was an archbishop seat, the ecclesiastical wealth in 1290, whether it was on a battle path, whether the city experience a plague in a given year, and whether it is on a Roman road, river, or the coast. Robust standard errors are reported in parentheses. *Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

number of days the king spends at that city by approximately 95%. These results are robust to various sizes of the buffer which defines whether the king was in the vicinity of the city (see Table A.5). What exactly the king did while he was near the cathedral city is lost to history for most of the elections, but the results suggest that he made the effort to show up and flex his authority to ensure the elected bishop was to his liking.

Unlike during the age of free bishop election, there should be no significant relationship between bishop appointments and royal visitations after 1344. After 1344, the king no longer had the ability to influence the process of an individual becoming a bishop, and therefore he has no reason to visit the cathedral city during appointment years over any other

possible destination. Columns (4)-(6) of Table (2) report coefficients for bishop appointments and royal visits between 1344 and 1500. As expected, there is no statistically significant relationship between bishop appointment and royal visitations in this period. The small positive effect that is found, in Column (6) with full controls, is only 19% of the effect size found in the age of bishop election. The effect of a city's distance to London expectantly remains negative, statistically significant, and approximately the same size.

The null effect found during the era of papal provision also assuages potential concerns about the king traveling to the city for reasons that are correlated with the timing of new bishop elevation but are not the elevation per se, which would bias the results upwards. For example, the king may wish to visit the cathedral city upon the death of the previous bishop, not to influence the election but to pay his respects to the former bishop. Alternatively, the king may visit the newly elevated bishop for a formal introduction or to consult on matters relevant to his diocese. But both scenarios seem equally likely in the era of free election as in the era of papal provision, so the null result during the era of papal provision suggests such concerns are minimal.

7 The End of Itinerant Kingship

Prediction (1) said that the king can be expected to abandon the itinerant lifestyle when the king gains an absolute military advantage over the elites. Itinerant kingship came to an end in England with the reign of Henry VIII (r.1509-1547) in the 16^{th} century. The king of France, however, would maintain the itinerant lifestyle until well into the 17^{th} century when Louis XIV (r.1643-1715) settled in Versailles. To provide evidence for Prediction (1), I discuss in comparative fashion the differential timing of state formation and elite pacification between England and France. The English elites diminish in power and disarm in the 16^{th} century, while the French do so later in the 17^{th} century.

Gunpowder in Europe dates to 1267, and the gunpowder cannon was introduced to Italy around 1300. But the cannon's use on the battlefield was delayed by its weight, its slow rate of fire, its inaccuracy, and for larger cannons, the high cost of artisan manufacturing (Downing, 1992). But the early decades of the 15$^{\text{th}}$ century saw improvements in cannons that allowed them to become larger (but not heavier), more accurate, more powerful, more reliable, and faster to reload, all while becoming cheaper to produce. Hoffman (2011) estimates total factor productivity growth for the production of artillery in England in the early years of the military revolution to be 1.4% per year and 0.6% per year in France, considerable figures for a pre-industrial economy.[30]

The gunpowder cannon was the first stage in a series of innovations in military technology and tactics that transformed warfare that has come to be called the "military revolution" (Parker, 1976, 1996, Roberts, 1955). The military revolution introduced real economies of scale into military operations (North and Thomas, 1973, Batchelder and Freudenberger, 1983, Latzko, 1993), which increased both the cost of holding territory and the minimum effective scale of governance. As a result, the optimal number of players in the market for governance decreased, and the state began to centralize (North and Thomas, 1973, Gennaioli and Voth, 2015).

The innovations of the military revolution spread quickly throughout Europe given the immense tournament-like competition of conflict (Hoffman, 2012). But the centralization process and the demilitarization of the barons was a heterogeneous process. England centralized and the king attained a monopoly on force much earlier than France. This variation can be partially explained by the differing geography. The compact and fairly flat terrain of

[30]An older generation of scholars (e.g. Oman (1895), Cruickshank (1966), Millar (1980)) cast Tudor England as lagging far behind the military developments of the European continent. But a newer generation of historians, summarized in Jame Raymond's book *Henry VIII's Military Revolution: The Armies of Sixteenth-Century Britain and Europe*, have challenged that image of England and have "demonstrate[d] that English military theory and practice was broadly in-line with that of its continental neighbours from the outset of the reign of Henry VIII" (2007).

southern England, as well as its island geography, made earlier state centralization possible. France's sheer size and ruggedness drew out the king's military struggle for supremacy.

7.1 England

In the early years of the military revolution, England was rocked by the War of the Roses from 1455 to 1487. After clinching victory at the battle of Bosworth, Henry Tudor (Henry VII) inherited a thoroughly medieval government, one that Edward I (r.1272-1307) would have found familiar (Elton, 1955). The core apparatus of the government was, as it was throughout the middle ages, the royal household. And like every other medieval English monarch, Henry VII was itinerant.

But between 1485 and 1530, Henry VII and his son, Henry VIII, presided over a "conscious effort to liquidate the greatest of the old medieval baronage" (Stone, 1948, 2). In 1504, a statute was passed that outlawed retaining, the baronial practice of maintaining an affinity of military men (Lockwood, 2017).[31] Henry VII possessed the only artillery train in all of England (Elton, 1955, Lockwood, 2017). In 1547, the royal stockpile of armaments contained 20,000 pikes and 6,500 handguns. The stockpiles of the Duke of Norfolk and the Duke of Northumberland were tiny in comparison. Northumberland had arms for 150 men, while Norfolk could outfit only about 70 men (Stone, 1965, 219).

The building of castles in England and Wales decreased dramatically from more than 250 in the 14$^{\text{th}}$ century to 150 in the 16$^{\text{th}}$ century. The 17$^{\text{th}}$ century saw nearly zero new castles erected in England and Wales. Of the inland castles that avoided the fate of demolition, many moved, often by force, into the crown's possession, where they sat unused and slowly dilapidated (Colvin, 1968). Instead, the demilitarized barons began to build more

[31]Similar statutes were attempted in 1390 under Richard II, in 1429 under Henry VI, and in 1468 under Edward IV. All of them failed to control the problem due to loopholes and the lack of enforcement. These attempts to rein in retaining, and thus the baronial military might, likely failed because the king was too weak to forcefully stand up to the barons that he relied on for support. But the Tudors succeeded where their predecessors had failed.

comfortable manor houses with no consideration for their defensive potential.

In the 1530s the remaining regions of the polity where the royal writ did not run were finally brought under the subjection of the king. In 1534, by an act of Parliament, the county palantine of Durham was brought under royal control. Also in 1534, royal officials were dispatched to the Welsh Marches to bring it to order, by force when necessary. Criminal trials for major crimes committed in the Marches were transferred to English border counties. In 1535, The Laws in Wales Act officially incorporated Wales into England. The statute dissolved the marcher lordships completely, and divided the territories amongst both old and new counties. The king's royal authority officially extended throughout England and Wales.

As the English government centralized authority around the king, the king's government became increasingly bureaucratized and less oriented around his household entourage and personal oversight. Henry VIII, aided by his chief minister, Thomas Cromwell, presided over what Geoffrey Elton called the "Tudor Revolution in Government" (Elton, 1953).[32] The heart of medieval governance, the royal household, was replaced by bureaucratic national departments. What made the Tudor revolution a *revolution* was not mere bureaucratization. Medieval government possessed considerable bureaucracy. The revolution was in decoupling the apparatus of government from the personal action and service of the king. The royal household became simply a "department of state concerned with specialized tasks about the king's person" (Elton, 1953, 415). The chamber, once the sole office handling the daily payments of the government, declined to the status of just one of many parallel revenue courts. The privy seal, the center of medieval administration, was replaced by the principal secre-

[32]As all works that proclaim "revolution" do, Elton (1953) has its share of critics. Coleman and Starkey (1986) are the most comprehensive critics. Although they de-emphasize the role of Thomas Cromwell in the reforms, and talk of "evolution" and "readjustment," they confirm that his general thesis holds true. As Norman Jones writes in his review of Coleman and Starkey (1986), "Evolution or revolution, English government in Elizabeth's day was something very different from government in her grandfather's day" (1987). See also Block (1987) and Davies (1987) for similar interpretations.

tary. As Elton writes: "The plain fact is that Henry VII ascended the throne of a medievally governed kingdom, while Elizabeth [I] handed to her successor a country administration on modern lines" (Elton, 1953, 3).

With the barons demilitarized and the authority firmly rested in the crown, itinerant kingship as a coalition-building strategy could be left behind. Henry VIII and all subsequent monarchs no longer depended on the baron's personal loyalty and military support to stay in power. Henry VIII was a relatively stationary king compared to his predecessors. Elizabeth followed in her father's footsteps. Both Henry VIII and Elizabeth's travels were mostly circumscribed to the summer months and within earshot of Westminster. Henry VIII and Elizabeth traveled, as politicians still do today, but they were not properly itinerant.[33]

As all monarchs do, the late Tudors and Stuart monarchs still required a winning coalition to effectively govern and to legitimate their reign. But the political situation was considerably different from their medieval predecessors. Rather than travel the kingdom, the Tudors called the elites to them. With the barons demilitarized, the costs borne by the king of convening a parliament fell. During the reign of Henry VIII, the number of days Parliament was in session and its legislative activity increased significantly (Van Zanden et al., 2012, Greif and Rubin, 2023). In terms of the percentage of reign years Parliament was in session, Henry VIII had the highest to date for an English monarch at 39%. Elizabeth I would match him during her reign, and James I would best him at 41%.

7.2 France

Medieval France was a composite kingdom. In contrast to England, the royal writ did not run through most of the kingdom, rather it was contained to the royal domaine (Wolffe,

[33]The language used by historians to describe the monarch's travels changes as well. The Plantagenet, Yorkist, and Lancastrian kings are referred to as "itinerant" in much of the historiography, while Henry VIII, Elizabeth I, and the subsequent Stuart monarchs go on summer "progresses" (Musson and Cooper, 2022, Keenan, 2020, Archer et al., 2007).

1971). Medieval and Renaissance France was more of a collection of large feudal holdings than it was a unified polity. A non-trivial amount of its population did not even speak French (Braudel, 1986). In fact, speaking of "France" prior to the 16th century borders on anachronism. The Duke of Burgundy, the Duke of Brittany, and the Duke of Bourbon (to name only a few) were legally vassals of the king of France, but could often rival him in military and territorial might.

By 1500, France was still largely a composite kingdom. The royal domaine did not yet span the whole kingdom, and large duchies still maintained their independence. But, the overall political trend was slowly moving toward centralization and royal territorial control. Francis I (r.1515-1547), a contemporary of England's Henry VIII, is known for his efforts at state-building. Between 1523 and 1545, he overhauled the government's financial system in important ways, introducing innovations in both revenue sources and administrative oversight (Collins, 1997). Francis's son, Henry II (r.1547-1559) would further his father's policy work by appointing secretaries of state that worked with the provinces on behalf of the royal administration, created the office of the controller general, and laid the foundation for what would eventually become the intendants. Burgundy was annexed to the crown in 1477, Provence a few years later in 1486, and Brittany in 1532. But the king was often forced to concede power and privileges to these new acquisitions to maintain their loyalty. And in some regions, the nobility remained semi-autonomous, as they were during the High Middle Ages (Johnson and Koyama, 2014a,b).

Despite the state-building efforts of the late Valois kings, the king remained politically dependent on and responsible to the French nobility. The king still relied on the local nobility to govern the kingdom (Major, 1997). Francis I, and his successors, were "absolute in the sense of having no superior except the Almighty, but he could not do all that he wanted" (Knecht, 2007, 229). As a result, the Valois kings remained itinerant while the English Tudors stayed home.

The Protestant Reformation created deep religious and political cleavages in France. When Henry II died unexpectedly in 1559 it sparked a struggle for power, compounded by religious differences, between the aristocratic houses of Guise, Bourbon, Montmorentcy, and Conte. The French Wars of Religion, as they have come to be called, lasted from 1562 to 1598, and resulted in the overthrow of the Valois dynasty. Francis II and Charles IX, Henry II's sons and successors to the throne, were itinerant (along with the queen mother, Catherine de'Medici) during their reigns. Their travels largely reflect the military necessities of their coalition and the battles that ensued between Protestants and Catholics.[34] The French Wars of Religion would claim the lives of two kings, Henry III in 1589 and Henry IV in 1610.

In the 1620s, King Louis XIII, with Cardinal Richelieu by his side, began what Tilly (1985) called "the great disarmament" (174). Louis clamped down on potential opposition by "controlling, weakening, and infiltrating," rather than destroying and abolishing, local institutions (Moote, 1989, 231). Richelieu declared the royal monopoly of force as doctrine. Castles of both Protestant and Catholic great lords were systematically destroyed, and Louis was "quite capable of executing disobedient nobles" when necessary (Major, 1997, 372). The carrying of weapons and the maintenance of large private armies was condemned. Louis put into action a deliberate policy of increasing his authority and decreasing that of rival governing bodies in the provinces (Major, 1997, 212). He pressured and imposed his will upon the provincial estates of Guyenne, Languedoc, Brittany, and Burgundy. Disloyal provincial governors were replaced by persons loyal to the crown. To accomplish his mission, Louis XIII traveled the kingdom extensively. The king's physical presence was a major component of his effort to increase his authority in the provinces as described above. By traveling, the king "reinforced local support, intimidated the disloyal, and undermined provincial autonomy"

[34]The young king Charles IX and the queen mother went on an extended journey throughout France from 1564 to 1566. Its dual aims were to solidify his authority now that he was of age and to ensure the enforcement of the edict of Amboise (Knecht, 2008).

(Moote, 1989).

The state-building efforts of the early Bourbon kings were successful at increasing the authority of the king and weakening the nobility. With the great armed nobles largely neutered, Louis XIV had no need to maintain the itinerant lifestyle during peacetime. In the early days of his personal rule, the royal court bounced around during peacetime between Paris, Saint Germaine, Fontainebleau, and Versailles (all of which are within the Île-de-France). From 1682, the king and his court spent increasing time at Versailles, where the king compelled the nobility to live with him.

8 Conclusion

All medieval European kings were itinerant. I argue that such a costly governance strategy was adopted to build and maintain a winning political coalition. Without that coalition, the king would be unable to effectively govern the kingdom and would be vulnerable to rebellion. I generate two testable predictions. First, the king will adopt an itinerant lifestyle when he only has a relative military advantage over the rest of the elites. He will adopt a stationary court only when his military position is so favorable that he gains an absolute advantage over them. Second, given the king adopts an itinerant lifestyle, he will focus his visitations on barons who, if they were to revolt, would generate the greatest increase in total rebellious activity.

To test the coalition-building theory of itinerant kingship, I introduce novel data on the daily location of the English king, and pair it with individual level data on medieval England's secular and ecclesiastical elites. Relying on random changes elsewhere in the baronial network, I show that a one-standard-deviation in a baron's intercentrality translates into an approximately 45% increase in the number of days the king spends at the baron's main manor. Turning to the ecclesiastical elite, I show that during the era of free elections in

England (1214-1344), the king privileges visiting cathedral cities that were holding a bishop election in an effort to influence the outcome of said election. An election occurring in a city increased the length of time the king spent in the city by 95%. Both of these results suggest that the contours of the king's itinerary are driven by a desire to interact and connect with key political players within the realm.

Itinerant kingship came to an end in Europe in the Early Modern period. The "military revolution," particularly the gunpowder cannon, increased the minimum effective scale of governance, leading to increased political centralization and the demilitarization of the secular nobility. These changes in military technology fundamentally altered elite politics in favor of the monarchy. The cost borne by the king of quashing a revolt fell, which caused the cost of calling the elites to a stationary court to fall as well. But that centralization and pacification process took longer on the continent than in England. Thus, the English king was an early adopter of a stationary court in the early 16^{th} century, while the French king remained itinerant until the mid-17^{th} century.

It is often imagined that non-elected rulers lack meaningful political restraints. In reality, they were comparatively weak and greatly relied on the support of other powerful authorities. In exploring itinerant kingship, we gain a better understanding of how non-elected rulers target individuals within the larger elite network to build and maintain a winning coalition. We also improve our understanding of the premodern European state, as well as the reasons behind the rise of the centralized nation-state that goes beyond international warfare, taxation, and expenditures.

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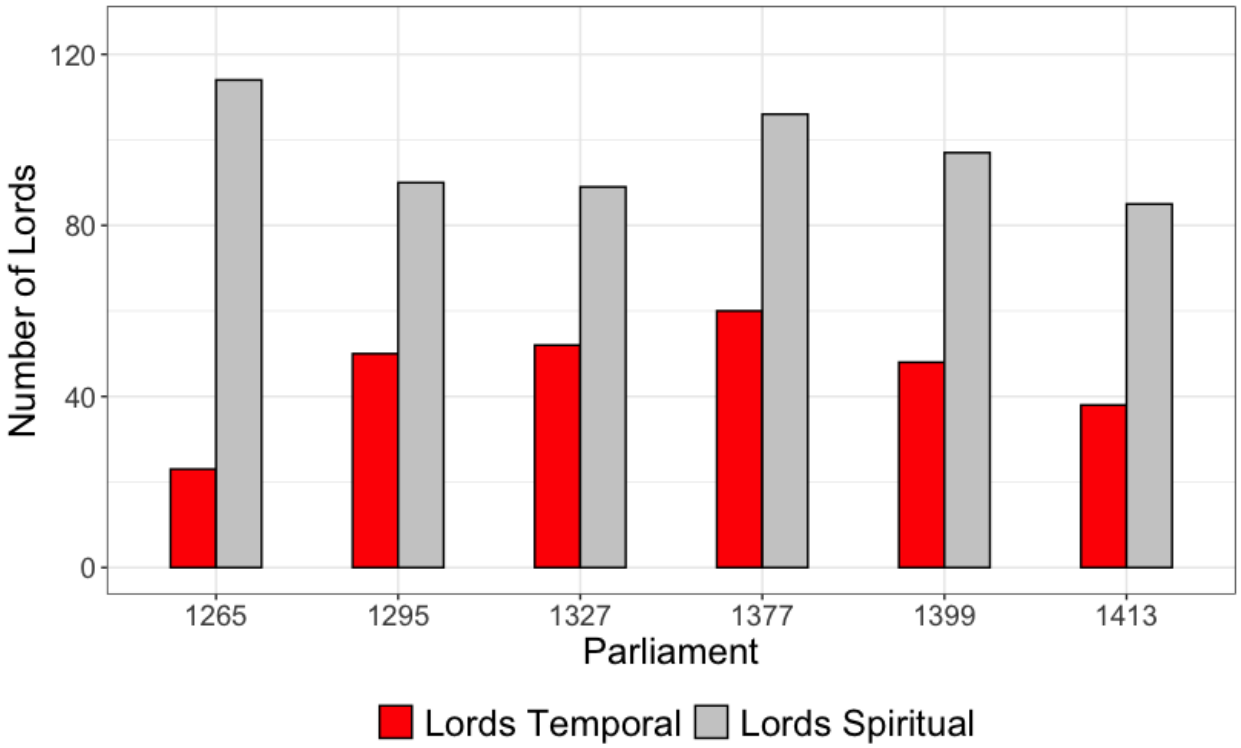
Additional Figures

Figure 9: Composition of Lords Called to Parliament, 1265-1413



Sources: Pike (1894, 96) and Roskell et al. (1993)

Table 3: Sources for the Royal Itineraries

King	Reign	Source
John	1199-1216	Kanter (2011b)
Henry III	1216-1272	Kanter (2011b), Craib et al. (2013)
Edward I	1272-1307	Kanter (2011b), Safford (1974), Trabut-Cussac (1952)
Edward II	1307-1327	Hallam (1984), Hartshorne (1862)
Edward III	1327-1377	Ormrod (2012)
Richard II	1377-1399	Saul (1997)
Henry IV	1399-1413	Given-Wilson (2016)
Henry V	1413-1422	Mowat (1919)
Henry VI	1422-1461, 1470-1471	Wolffe (2001)
Edward IV	1461-1470, 1471-1483	Ashdown-Hill (2016, 2017)
Richard III	1483-1485	Edwards (1983)
Henry VII	1485-1509	Temperley (1914), Powell (2018)
Henry VIII	1509-1547	Samman (1989), TNA OBS 1/1419
Elizabeth I	1558-1603	Cole (1999)

Note: Where multiple citations are listed, the first listed citation serves as the main source of the individual's itinerary and the following citations are used to fill gaps. Due to gaps in the historical record, the years contained in the itinerary do not always include all years of the individual's reign.

Figure 10: Number of days the king can be located, 1199-1603

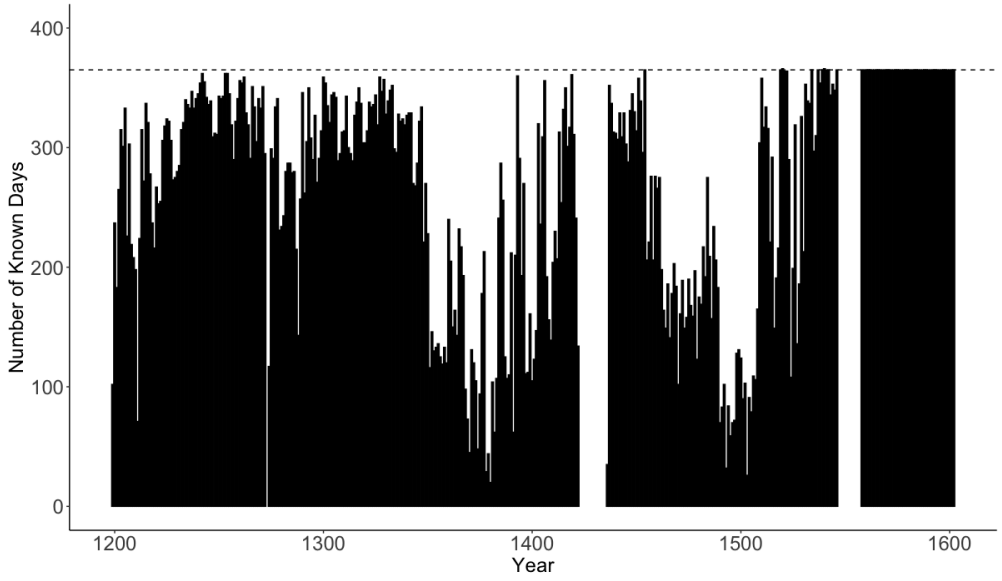


Table 4: Centrality in the Network of 1215 Rebels

	Rebelled in 1215
Network Distance to Rebel	-0.022^{***}
	(0.004)
Baron-level Controls	Yes
Observations	109
R^2	0.465
Note: Robust standard errors in parentheses.	*p<0.1; **p<0.05; ***p<0.01

Notes: The effect of a baron's distance to a member of the 1215 rebellion on his likelihood of joining the rebellion. The outcome variable is a binary measure of whether a baron rebelled against John in 1215 using data from Desierto et al. (2023). The measure *Network Distance to Rebel* is the network distance the individual baron is from barons who rebelled. Models are estimated using OLS, and robust standard errors are in parentheses.

Table 5: Summary statistics for baron-barony data

Statistic	N	Mean	St. Dev.	Min	Max
Number of days king spends at baron (8km)	1,865	1.6	7.4	0	184
Baron's network distance to the king	1,865	7.4	4.2	1	20
Baron's Family Size (degree)	1,865	11.6	10.0	1	59
Baron's intercentrality ($\phi = 0.022$)	1,865	0.2	0.5	0.000	7.0
Barony on War Path	1,865	0.05	0.2	0	1
Number of markets & fairs near barony	1,865	24.3	14.2	0	71
Number of royal boroughs near barony	1,865	1.6	1.2	0	5
Baron's days on Witness List	1,865	5.7	20.4	0	314
Historical Grain Yield	1,648	5.5	3.1	1.5	20.1
Betweenness Centrality	1,865	39,901.7	76,480.4	0.0	517,323.4
Closeness Centrality	1,865	0.02	0.1	0.000	0.5
Degree Centrality	1,865	0.004	0.004	0.000	0.02
Eigenvector Centrality	1,865	0.02	0.1	0.0	1.0
Katz-Bonacich Centrality ($\phi = 0.022$)	1,865	1.4	1.5	0.1	11.0

Table 6: Summary Statistics for English Bishop Elevations

Panel 1: Era of Free Election, 1217-1344

Statistic	N	Mean	St. Dev.	Min	Max
Bishop elevation (Election)	2,720	0.1	0.3	0	1
Number of days king spends near city (8km)	2,720	4.7	21.1	0	266
Archbishop	2,720	0.1	0.3	0	1
King a minor?	2,720	0.1	0.2	0	1
Travel Cost to London	2,720	2.1	1.2	0.0	4.5
Secular Canon	2,720	0.4	0.5	0	1
Urban Population (1290)	2,400	8.8	0.9	7.6	11.0
Ecclesiastical Wealth	2,720	8.7	0.7	7.5	10.2
City along road	2,720	1.0	0.0	1	1
City along river	2,720	0.8	0.4	0	1
City along river	2,720	0.6	0.5	0	1
Number of days king can be located per year	2,703	282.9	76.9	45	362
City on battle path	2,720	0.02	0.1	0	1

Panel 2: Era of Papal Provision, 1345-1500

Statistic	N	Mean	St. Dev.	Min	Max
Bishop elevation (Appointment)	2,686	0.1	0.3	0	1
Number of days king spends near city (8km)	2,686	3.1	16.1	0	256
Archbishop	2,686	0.1	0.3	0	1
King a minor?	2,686	0.1	0.4	0	1
Travel cost to London	2,686	2.1	1.2	0.0	4.5
Urban Population (avg. between 1400 and 1500)	2,528	1.5	0.8	0.0	3.9
City along road	2,686	1.0	0.0	1	1
City along river	2,686	0.8	0.4	0	1
City along coast	2,686	0.6	0.5	0	1
Number of days king can be located per year	2,465	196.7	90.7	20	365
City on battle path	2,686	0.01	0.1	0	1
PlagueOccurance	2,686	0.03	0.2	0	1

A Online Appendix A: Robustness Tests

A.1 Robustness for Royal Travel and Political-Kinship Networks

A.1.1 Various Barony Buffer Sizes

In the main results, I define the king as visiting a baron *caput* if the king was within 8km ($\approx$ 5 miles) of the barony *caput*. Table (A.1) reports the effect of a baron's intercentrality on the number of days the king spends at the barony for various buffer sizes: 4km ($\approx$ 2.5 miles), 16km ($\approx$ 10 miles), and 32km ($\approx$ 20 miles). The main result (8km) proves broadly robust (within the standard errors) to these various definitions of the king being close to the barony.

Table A.1: Baron's Intercentrality and Royal Visitation, 1216-1307, Various Buffer Sizes

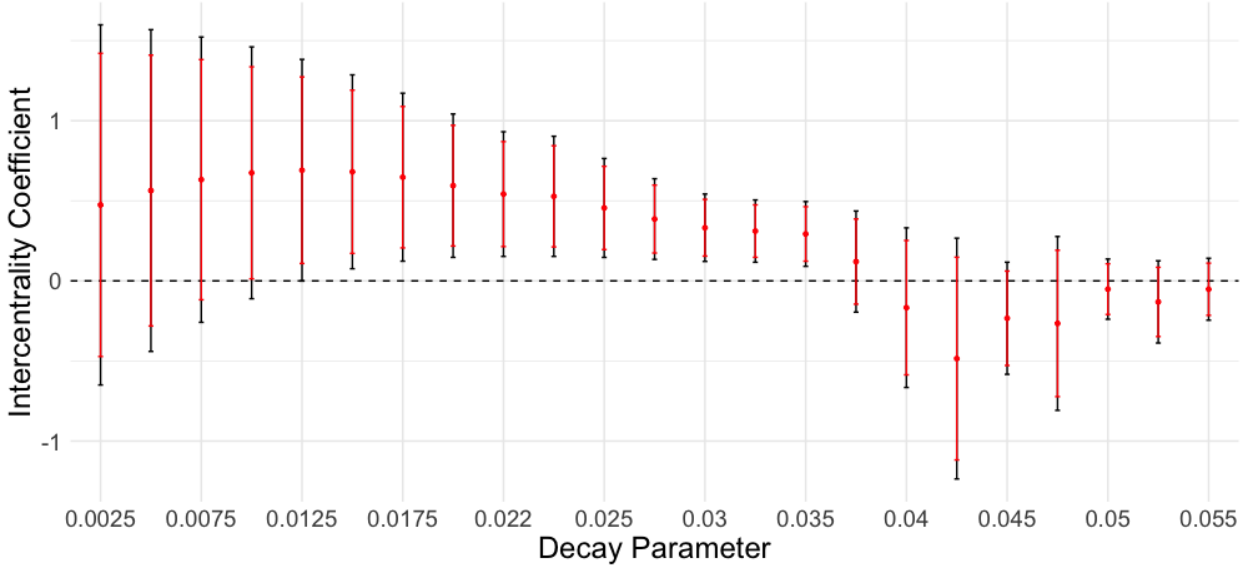
	Days Spent at Barony		
	(1)	(2)	(3)
Intercentrality	0.1688	0.2951**	0.2683***
	(0.2032)	(0.1293)	(0.0942)
Family Size	0.0412	-0.0696**	-0.0311
	(0.0972)	(0.0282)	(0.0211)
Days on Witness List	-0.0007	-0.0002	0.0017
	(0.0047)	(0.0032)	(0.0017)
Barony on Battle Path	0.2616	-0.1699	0.0026
	(0.3531)	(0.1740)	(0.1562)
Buffer Size	4km	16km	32km
Full Controls	✓	✓	✓
Baron-Barony Dyad FE	✓	✓	✓
Time Period FE	✓	✓	✓
Observations	606	1,592	1,865
Pseudo R^2	0.68322	0.86066	0.84312

Note: Estimates of the effect of a baron's intercentrality on royal visitation, as measured by the number of days the king spent at the baron's barony *caput*, defined by various buffer sizes. Each column includes baron-barony dyad and time period fixed effects. The baron or barony time-variant control variables include: the baron's family size, the number of days he appears on the charter witness lists, whether the barony was on the travel path from London to a historical battle, the network distance between the baron and the king, the number of markets and fairs within 12km of the barony, and the number of royal boroughs within 12km of the barony. Robust standard errors clustered at the fast-greedy community level are reported in parentheses. *Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

A.1.2 Different decay parameters

To estimate a baron's intercentrality, we must choose the value of a decay parameter that defines the importance of close versus more distant connections. To ensure the adjacency matrix associated with the network of barons is positive definite, the decay parameter must be set within the range of $(0, \frac{1}{\lambda})$, where λ is the largest eigenvector of the adjacency matrix (Bonacich, 1987). Because of the temporal dimension exploited for identification, I calculate the largest eigenvector for each time period's network, and choose the smallest one to ensure each time period's centrality estimates are compliant with the above mentioned rule. That eigenvector is 18, thus allowing for a range of (0, 0.05) for the decay parameter. The main results set the decay parameter to 0.022 as a baseline.

Figure A.1: Coefficients on intercentrality while varying the weight on close ties



Notes: The effect of a baron's intercentrality on the number of days the king spent within 8km of the baron's barony *caput* with various decay parameters which define the importance of close ties versus more distant ties when estimating intercentrality. Estimates are calculated using Equation (8) with full controls, as well as baron-barony and time fixed effects. Error bars represent robust standard errors clustered at the fast-greedy community level at the 95% (red) and 90% (black) confidence intervals.

Figure (A.1) plots coefficients of the effect of a baron's intercentrality with varying decay parameters on the number of days the king spends near the baron's barony *caput* within a given five-year time period. The main results shown in Table (1) in the body of the paper are robust to different decay parameters within the range (0, 0.035) at the 95% confidence level. There is no theoretical reason that the effect should be statistically significant over the entire range (0.0125, 0.055). The maximum potential decay parameter of 0.055 is a product of mathematical necessity, not historical validity. In fact, if the decay parameter used in estimating a baron's intercentrality is significantly different from the actual historical value, the effect size of intercentrality on royal visitation should be insignificant.

One element that jumps out about Figure (A.1) is that the standard errors of the estimated effect tend to decrease as the decay parameter for estimating intercentrality goes from 0 to 1. The explanation for that lies with how the decay parameter impacts the resulting intercentrality measure. If the decay parameter is set to zero, a baron's most distant connection will be equally influential on him as his closest connection. Given that a baron is connected to every other through some k-linked chain of kin connections, when the decay parameter is zero, the variance of the intercentrality measure will be very small. All barons will essentially be the same in the eyes of the king's key player policy because they will all have very similar intercentrality scores. Thus, as the chosen decay parameter moves toward 0, the standard errors on the effect of intercentrality on royal visits will increase in size. On the other hand, if the decay parameter is set to one, only a baron's immediate connections influence him because more distant connections are worth nothing. In that case, the variance of the intercentrality measure will be large, and the resulting estimates will be more precise.

A.1.3 Alternate Network Configurations

Table A.2: Baron's Intercentrality and Royal Visitation, Elite Network sans Wives with Various Buffer Sizes

	Days Spent at Barony			
	(1)	(2)	(3)	(4)
Intercentrality	0.1499	0.4304**	0.3165**	0.2896***
	(0.2324)	(0.2142)	(0.1287)	(0.0904)
Family Size	0.1324	-0.1302	-0.0744**	-0.0259
	(0.1083)	(0.1046)	(0.0317)	(0.0222)
Barony on Battle Path	0.4712	0.6334**	-0.1949	-0.0584
	(0.3548)	(0.2996)	(0.1598)	(0.1352)
Days on Witness List	-0.0006	0.0046	-0.0002	0.0021
	(0.0045)	(0.0056)	(0.0034)	(0.0017)
Buffer Size	4km	8km	16km	32km
Full Controls	✓	✓	✓	✓
Baron-Barony Dyad FE	✓	✓	✓	✓
Time Period FE	✓	✓	✓	✓
Observations	547	974	1,495	1,754
Pseudo R^2	0.69680	0.68266	0.86762	0.84816

Note: Estimates of the effect of a baron's intercentrality on royal visitation, as measured by the number of days the king spent within 8km of the baron's barony *caput*, where the elite network does not include a baron's wife. Each column includes baron-barony dyad and time period fixed effects. The baron or barony time-variant control variables include: the baron's family size, the number of days he appears on the charter witness lists, whether the barony was on the travel path from London to a historical battle, the network distance between the baron and the king, the number of markets and fairs within 12km of the barony, and the number of royal boroughs within 12km of the barony. Robust standard errors clustered at the fast-greedy community level are reported in parentheses. *Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

A.1.4 Controlling for Historical Grain Values

The main specification uses potential agricultural productivity to proxy for the in-kind taxable goods the king can extract from a barony. Even though the potential agricultural productivity reflects historical farming practices (rain-fed, low-input), the soil's suitability

to modern crops may differ significantly from historical crops. To assuage concern that the GAEZ crop suitability data does not reflect historical agricultural productivity, I construct a time-varying estimate of the value of historical agricultural output at the barony level. Historical yields at the manor level for wheat, barley, rye, and oats from Campbell (2007) are spatially interpolated, and values of each are extracted at the barony level. The medieval manors in Campbell (2007) are not the same as the Sanders (1960) barony *caputs*. The individual crop yields are indexed using the crop share weights from Broadberry et al. (2010) and multiplied by grain prices from Clark (2004).

Table (A.3) provides estimates of Equation (8), adding historical grain value as a proxy for a barony's in-kind taxable goods. Column (1) use the full sample, and find the main result to be robust to the change in agricultural productivity. Column (2) limit the sample to only those baronies below 53° latitude, as that is where the data coverage in Campbell (2007) is best. The results remain largely unchanged despite the higher quality and more accurate (in theory) estimates of historical grain value. Across both columns, the barony's historical grain value has no measured effect on the number of days the king spends at the barony.

Table A.3: Baron's Intercentrality, Royal Visits, and Historical Grain Values, 1199-1327

	Days Spent at Barony	
	(1)	(2)
Intercentrality	0.5420***	0.5980***
	(0.1986)	(0.2283)
Family Size	-0.1639	-0.1815
	(0.1117)	(0.1276)
Days on Witness Lists	0.0064	-0.0076
	(0.0056)	(0.0063)
Barony on Battle Path	0.7483**	0.4610
	(0.3285)	(0.3303)
Historical Grain Yield	0.0487	0.2791
	(0.0914)	(0.3095)
Sample Space	Full	$< 53°$ lat
Full Controls	✓	✓
Baron-Barony Dyad FE	✓	✓
Time Period FE	✓	✓
Observations	937	773
Pseudo R^2	0.67738	0.68840

Note: Estimates of the effect of a baron's intercentrality on royal visitation, as measured by the number of days the king spent within 8km of the baron's barony *caput*. Each column includes baron-barony dyad and time period fixed effects. The baron or barony time-variant control variables include: the baron's family size, the number of days he appears on the charter witness lists, whether the barony was on the travel path from London to a historical battle, the network distance between the baron and the king, the number of markets and fairs within 12km of the barony, the number of royal boroughs within 12km of the barony, and the (time-varying) historical grain yield of the barony. Robust standard errors clustered at the fast-greedy community level are reported in parentheses. *Signif. Codes: ***: 0.01, **: 0.05, *: 0.1* level.

A.1.5 Alternative Network Centrality Measures

There are two broad categories of network measures. Those best suited to study the flow of information through a network (degree centrality, betweenness centrality, and closeness centrality), and those suited to study an individual node's prestige within the network (Intercentrality, Katz-Bonacich centrality, and Eigenvector centrality). In this paper I've argued that the king is most concerned with a baron's influence on others rather than information

flows, and that in particular, it is baron's intercentrality that is most relevant in determining the king's policy of visiting the barons. The corollary is we should not find an effect for those centrality measures which proxy information flow.

Table (A.4) displays the potential causal effect of three different network centrality measures on the number of days the king spends at the barony. Column (1) looks at a baron's degree centrality, the simplest estimate of how connected a baron was. Column (2) looks at a baron's betweenness centrality, a measure of how important a node is in terms of connecting other individuals or groups. Finally, Column (3) looks at a baron's closeness centrality, or how easily a baron can "reach" other barons via the network. All three of these network centrality measures are different approaches to estimating a baron's access to information flows rather than their influence over others. As expected, all three measures seem to have no effect on the number of days the king spends at the respective baron's barony.

Columns (4) and (5) of Table (A.4) report estimates of Katz-Bonacich centrality and eigenvector centrality, respectively. It is unsurprising that there are both positively associated with the number of days the king spent at a barony, as they both similar to intercentrality. Recall that intercentrality is a nonlinear transformation of the Katz-Bonacich centrality, and eigenvector centrality is equal to Katz-Bonacich centrality when the decay parameter ϕ is equal to 1.

Table A.4: Alternative Network Centrality Measures and Royal Visitation

	Days Spent at Barony				
	(1)	(2)	(3)	(4)	(5)
Degree Centrality	-80.10				
	(1,003.8)				
Betweenness Centrality		0.000005*			
		(0.000003)			
Closeness Centrality			-8.787		
			(5.758)		
Katz-Bonacich Centrality				0.5210**	
				(0.2378)	
Eigenvector Centrality					1.931***
					(0.5664)
Family Size	-0.0416	-0.0676	-0.0697	-0.2147*	-0.1085
	(0.3702)	(0.0858)	(0.0848)	(0.1299)	(0.0839)
Full Controls	✓	✓	✓	✓	✓
Baron-Barony Dyad FE	✓	✓	✓	✓	✓
Time Period FE	✓	✓	✓	✓	✓
Observations	1,054	1,054	1,054	1,054	1,054
Pseudo R^2	0.66751	0.66880	0.66971	0.66989	0.67222

Note: Estimates of the effect of a baron's network centrality on royal visitation, as measured by the number of days the king spent within 8km of the baron's barony *caput*, using a variety of different network centrality estimates. Each column includes baron-barony dyad and time period fixed effects. The baron or barony time-variant control variables include: the baron's family size, the number of days he appears on the charter witness lists, whether the barony was on the travel path from London to a historical battle, the network distance between the baron and the king, the number of markets and fairs within 12km of the barony, and the number of royal boroughs within 12km of the barony. Robust standard errors clustered at the fast-greedy community level are reported in parentheses. *Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

A.2 Robustness for Royal Pressure on Ecclesiastical Elections

A.2.1 Varying the Size of the Cathedral City Buffer

In the main results, I define the king as visiting a cathedral city if the king was within 8km ($\approx$ 5 miles) of the city. Table (2) reports the causal effect of a bishop election on the number of days the king spends at the barony for various buffer sizes (8km, 16km, and

32km). The results are robust to varying the size of the buffer that defines a royal visit for both the era of free election as well as the placebo test using the era of papal provision.

As the size of the buffer increases, the effect size of the bishop election decreases. This is unsurprising because as the buffer increases in size it becomes increasingly difficult to say that the king is in fact visiting with the respective cathedral city, which will put downward bias on the estimated effect of an election.

Table A.5: Royal Visits and Bishop Elevations, Various Cathedral City Buffers, 1214-1500

	Number of Days King Spends at Cathedral City					
	1214-1344			1344-1500		
	(1)	(2)	(3)	(4)	(5)	(6)
Bishop Elevation	0.6728***	0.6219***	0.5019***	0.1712	0.1208	0.1523
	(0.1505)	(0.1481)	(0.1429)	(0.3849)	(0.2725)	(0.2168)
Buffer Size	4km	16km	32km	4km	16km	32km
How do bishops gain office?	Election	Election	Election	Papal	Papal	Papal
Year FE's	✓	✓	✓	✓	✓	✓
City FE's	✓	✓	✓	✓	✓	✓
Observations	1,968	2,091	2,091	2,070	2,208	2,208
Pseudo R^2	0.82429	0.76638	0.68884	0.84462	0.85157	0.79760

Notes: Estimates of the causal effect of a bishop elevation on the number of days the king spent cathedral city using different sized buffers. In columns (1)-(3), elevation corresponds to a local election, while in columns (4)-(6) it is a papal appointment. Cathedral city level controls include the length of the seat's vacancy (for elections only), whether it was an archbishop, the ecclesiastical wealth of the city, whether it was on a battle path, whether the city experienced a plague in a given year, and whether it is on a Roman road or coast. Robust standard errors are reported in parentheses. Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

B Online Appendix B: Further Historical Evidence

B.1 Illegitimate kings travel more in their early years

In the early years of their reign, kings cared about their legitimacy perhaps more than anything. The sources of a king's legitimacy can be roughly divided between endowed legitimacy and purchased legitimacy. In medieval England, a king is endowed with legitimacy if he takes the throne as an adult male heir of a previous king. A usurper thus has a lower level of endowed legitimacy, as does a child king. But as Greif and Rubin (2022, 2023) argue, legitimacy is partly an endogenous variable that the king can attempt to increase by appealing to and exchanging with powerful legitimating agents within the polity. So, in a sense, it is akin to building a political coalition.

In the body of the paper, I predicted that kings with lower levels of endowed legitimacy should travel more to bring key barons into their coalition. Table (B.6) shows the number of movements for the first three years of a king's reign. Non-adult-heirs travelled about 17% more on average in their first three years than their adult-heir counterpart. The difference increases to 30% when only the king's adult rule is considered.

Table B.6: Endowed Legitimacy and Royal Travel: 1199-1547

King	Reign	Number of Movements (First 3 Years)	King	Reign	Number of Movements (First 3 Years)
	Adult Heirs			*Non-Adult Heirs*	
John I	1199-1216	137	Henry III	1216-1272	292 [288]
Edward I	1272-1307	121	Edward III	1327-1377	271 [303]
Edward II	1307-1327	211	Richard II	1377-1399	29 [146]
Henry V	1413-1422	63	Henry IV	1399-1413	89
Henry VIII	1509-1547	101	Henry VI	1422-1461	[180]
			Edward IV	1461-1483	172
			Richard III	1483-1485	56
			Henry VII	1485-1509	143
Average		126.6	Average		150.3 [172.1]
Average (without Henry VIII)		133.3			

Note: Adult heirs are kings aged 17 or older at the time of their succession whose father was also a previous monarch. Movements recorded in brackets correspond to movements that occurred in the first three years of the king's adult rule. Data on the number of movements is lacking for the early years of Henry VI.

B.2 Child kings increase their travel upon becoming adults

Some kings acquired their title as children. In that event, a regency government would be formed until the child king came of age and could personally grasp the reins of government. When that time came, it benefited the newly adult king to explore the political landscape without the filter the regent provided. To do so, he often increased the number and breadth of his movements. Figure B.2 shows the number of movements of four of England's child kings. The king's number and breadth of movements visually increases around the time of his "coming of age" for three of the four. That indicates that the king's itinerary was responsive to the political situation and the king's estimation of his own legitimacy.

Henry III of England, a child during the First Baron's War against his father King John, succeeded to the throne in 1216 at the age of nine. His minority rule ended officially in 1227. In theory he was then able to issue charters, grant patronage, and govern the realm however he wished. But in practice he was under the watchful eye of his justiciar Hubert de

Burgh until 1232 and Peter des Roches until 1234 (Carpenter, 2020). During Henry's trial period from 1228 to 1234, he spent 26% of his time in Westminster/London, compared to 44% during his minority, and increased his average yearly movements by 20%.

Instead of working under the tutelage of the regent, Edward III threw off his regents in spectacular fashion. In 1329 at the age of 17, Edward III spearheaded a coup d'état to overthrow his regent and *de facto* ruler of England, Roger Mortimer. Upon doing so, the number of movements and the breadth of the king's travels increased. The kingdom was teetering on the edge, rocked by the political disruptions of the previous king and his deposition (Ormrod, 2012). Building legitimacy and smoothing over disputes was an absolute imperative. During his four years as a minor under Mortimer, Edward moved an average of 94 times per year. In the first four years of his personal reign, he increased his movements to an average of 116 per year, an increase of about 23%, paralleling Henry III's increase.

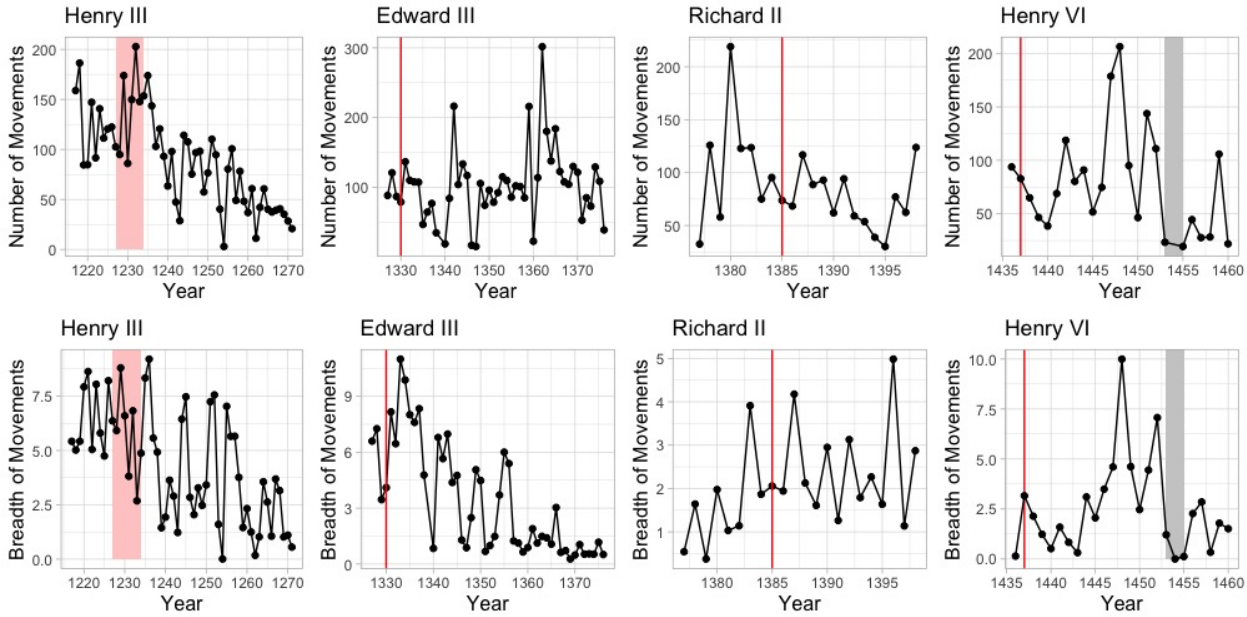


Figure B.2: Child Kings and the Mentally Ill, England and France

Note: Red vertical lines denote the end of the king's minority regency. The red-shaded portions denote the time between coming of age and assuming personal control of government. The gray-shaded portions denote regencies that occur due to the king's mental illness or catatonia.

Edward's early reign travels also increase greatly in breadth by about 80% relative to during his minority.

In 1377, Edward III of England died, passing the crown to his ten-year-old grandson Richard II. Richard is faced with the Peasant's Revolt in 1381 at the age of 14. Richard comes of age in 1385. In the same year, he launches an invasion of Scotland. Richard faced political trouble with powerful barons from 1386 to 1388, reflected in an increased number and breadth of his movements (Tuck, 2004). In 1389, he turned 21 and, having established peace, assumed full, personal control of the government unaided by formal advisors (Saul, 1997, p. 203). Unlike Henry III and Edward III before him, Richard II does not have a post-minority increase in travel activity. Richard II's lack of increased activity during the early years of his majority reign may be blamed on the great authority of his predecessor, Edward III. Unlike Henry III and Edward III, Richard II could ride the coattails of the last king, hoping his legitimacy would be easily transferred.

Henry VI was endowed with "the full powers of personal kingship" in 1437 at the age of 16 (Wolffe, 2001). The early start is attributable to the unexpected death his of uncle and regent, the Duke of Bedford. Wolffe (2001) argues that there are "no grounds whatsoever" to believe that Henry's minority council attempted to hold on to *de facto* power while allowing Henry to be the public-facing image of the crown. The scarcity of recorded itineraries for Henry VI's early minority makes it difficult to determine if he increased his travel dramatically after the end of his minority. Working with what exists, it appears that, like Richard II, Henry VI does not increase his number of movements after stepping into the full role. He, however, doubles the breadth of his movements in 1437. It remains higher than the minority era until 1440, suggesting that he is more akin to Henry III and Edward III than he is to Richard II.

Henry VI provides a unique case where we can observe an adult king recede back into a child-like state. Around July of 1453, Henry VI fell into a catatonic stupor (Wolffe, 2001). Consequentially, his number of movements plummet from 103 in 1452 to zero in 1454 and

11 in 1455. In 1455 Henry VI recovered (at least some of) his wits, only increasing his travel activity leading up to his deposition.

B.3 Deposed kings increase their travel leading up to their death

Depositions do not come out of nowhere. Barons start grumbling years in advance, and the king makes attempts to appease them. Or, at the very least meets with them, hears them out, and makes up excuses in an effort to stall. In the years leading up to their deposition, the king does not know that his efforts will, in the end, prove unsuccessful. All he knows is that the glue that holds the polity together is loosening, the barons' discontent is growing, and loyalty is waning. In those years, the king's number of movements should increase each year as loyalty to him unravels.[35]

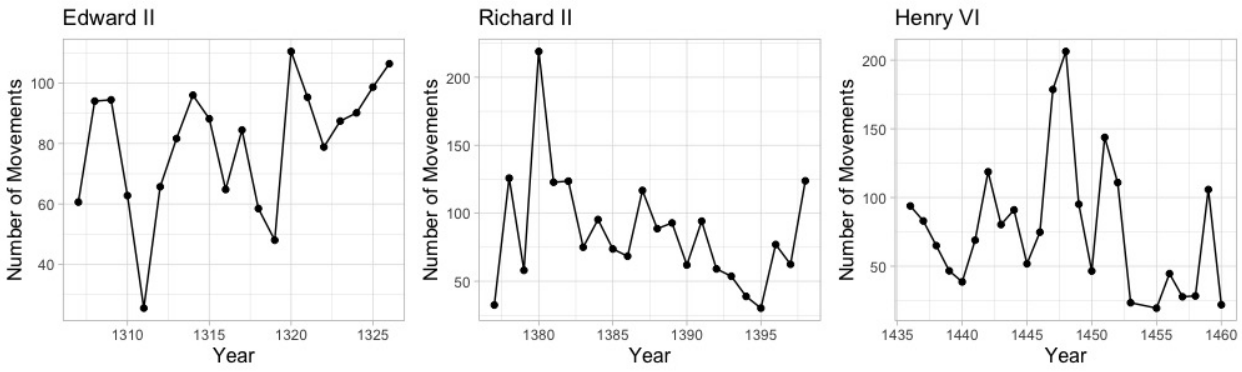


Figure B.3: England's Deposed Kings: Edward II, Richard II, and Henry VI

Note: The raw number of annual movements are adjusted for data quality by dividing it by the number of known days in the itinerary, and then multiplying by 365.

Figure (B.3) shows the annual movements of three of England's deposed kings: Edward II, Richard II, and Henry VI.[36] As predicted, the number of movements made by the king increases in the few years leading up to the deposition of Edward II and Richard II. Henry

[35]Deposed kings, almost by definition, are kings who could not maintain their coalition. But we need not think they travelled sub-optimally (i.e. they met with the wrong people). The barons just did not like the proposal he was offering them.

[36]Richard III (r.1483-1485) was also deposed. His short reign makes it difficult to analyze in the same way as the other deposed kings.

VI, with the exception of the spike of travel movements in 1459, seems to deviate from the others. That can perhaps be explained by his catatonic state in the 1450s and his known struggles with debilitating mental illness.