

# Networks paving the way: apprenticeship and occupational mobility in early modern Genoa

Alessandro Brioschi<sup>1</sup>

2025 EHS Annual Conference

The connection between social structures and economic institutions has recently emerged as a key topic in economic research. Recent studies have tried to explore the effects of social networks on the professional success of individuals, particularly in early modern economies or in the study of labour markets in developing nations where trade relations are often enforced more via social interactions rather than formal legal systems (Munshi, 2003; Jackson, 2010; Edwards and Ogilvie, 2012).

Apprenticeship, one of the largest modes of organized learning in early modern European societies and an essential ingredient for the acquisition of human and occupational rights, constitutes an important lens through which to examine these issues (de la Croix et al., 2018; Mokyr, 2019). For an unskilled youngster, direct contact with people who already possessed the requisite competence of a specific trade provided access to this fundamental knowledge without being constrained by family lines (de la Croix et al., 2018; Mokyr, 2019). However, despite apprenticeship could solve imperfections in markets for skilled training and thus foster investment in human capital, in practice, access to these opportunities and subsequent career advancements was profoundly shaped by social relations and the broader economic context (De Munck, 2007; Farr, 2000; Ogilvie, 2019, 2020). Indeed, securing entry into prestigious trades and obtaining better training opportunities was often dependent on the presence of family connections within the same labour market or even the guilds themselves (Ogilvie, 2019). This network-based advantage extended beyond the training period. At the end of their training terms, most apprentices aspired to become masters themselves in their trade of choice and be able to open their workshops but only a few of them completed this professional pathway (Barahona and Nieto Sánchez, 2019; Schalk et al.,

---

<sup>1</sup>Centre for Economics, Policy and History (CEPH), Queen's University Belfast. abrioschi01@qub.ac.uk

2017). The limited available evidence confirms that the process for becoming a master, even with geographic and occupational differences, was significantly dependent on the family and professional ties of the apprentice (Schalk et al., 2017; Wallis, 2008).

In this paper, I explore the effect of social and professional networks on the occupational trajectories in Genoa between the fifteenth and the sixteenth century. To do that, I use a hand-collected sample of more than 8,000 apprenticeship contracts, which recorded the names and family relations of every figure present at the moment of contract stipulation (i.e. apprentices, masters, guarantors, and witnesses). The study focuses on a critical stage in the career of apprentices: becoming a master at the end of training. By analysing the interplay between social connections, guild dynamics and the broader changes in the economic scenario, I aim to test to what extent family and professional ties shaped the professional advancement of apprentices in early modern Genoa. To identify apprentices who advanced to mastership, I employ a probabilistic record linkage algorithm that matches apprentices' names with those of masters in later contracts. I then test the effect of an apprentice's kinship and professional ties on his likelihood of becoming a master in his guild of membership to identify the key factors that influenced the professional advancement of apprentices.

The results show a statistically significant relationship between the presence of family ties with masters or other guild members and the probability of achieving mastership at the end of training. By further exploring these relationships, I show that family ties were crucial in various phases of an apprentice's career, especially in the choice of the trade where to become apprenticed and for the possibility of negotiating better contractual terms. These results hold when controlling for the effects of geographic networks and the family background of apprentices. Furthermore, I find that the economic crisis that hit Genoa at the end of the fifteenth century did not alter the importance of social networks for professional advancement, despite an increase in the reliance on apprenticeship as a cost-effective source of labour. At the same time, I show that this sectorial economic contraction reduced the available career opportunities for apprentices in the hardest-hit trades.

By examining the professional trajectories of apprentices in this historical context, this paper contributes to the debate on the functioning of pre-industrial labour markets showing how networks of strong ties could have altered the markets for skill formation and labour mobility. Building on previous contributions on the subject, I show that southern European markets for apprenticeships were not fluid, accessible and merit-based as other markets for

skills in early modern Europe (Leunig et al., 2011; Zeev et al., 2017). Instead, I argue that networks of strong ties played a key role in facilitating access to economic opportunities, thereby reinforcing social and economic inequalities.

Secondly, in early modern Genoa, apprenticeship was entirely run by guilds. Thus, as argued by various scholars, Genoese guilds were in a position to extract benefits for their members by acting as cartels, rationing access to human capital investment, and redistributing resources to their members at the expense of the wider economy, especially during periods of economic instability (Acemoglu et al., 2011; Caracausi, 2017; Ogilvie, 2019, 2020). My analysis provides one of the first pieces of empirical evidence for the early modern period on how guilds reacted to socio-economic transformations, restricting the access to professional opportunities to those not linked with their members.

Finally, this paper speaks to the wider interest in understanding the institution of apprenticeship. Most of the works done on this topic has sought to study who was able to access apprenticeship, how effective the training was, whether innovation was encouraged and the flexibility of this system in case of premature terminations (De Munck, 2007; Schalk, 2019; Schalk et al., 2017; Wallis, 2019). This work builds on the existing literature on apprenticeship but tries to explore the link between apprenticeship and occupational mobility. Challenging the view that apprenticeship necessarily promoted upward mobility within pre-industrial societies, I show that, in the absence of social connections, apprenticeship was probably used only as a tool to manipulate entry into urban labour markets and, at the same time, a source of underpaid labour.

## References

- Acemoglu, D., Cantoni, D., Johnson, S., and Robinson, J. A. (2011). The Consequences of Radical Reform: The French Revolution. *American Economic Review*, 101(7):3286–3307.
- Barahona, V. L. and Nieto Sánchez, J. A. (2019). Artisan Apprenticeship in Early Modern Madrid. In Prak, M. and Wallis, P., editors, *Apprenticeship in Early Modern Europe*, pages 44–77. Cambridge University Press, 1 edition.
- Caracausi, A. (2017). Information asymmetries and craft guilds in pre-modern markets: evidence from Italian proto-industry. *The Economic History Review*, 70(2):397–422.
- de la Croix, D., Doepke, M., and Mokyr, J. (2018). Clans, Guilds, and Markets: Apprenticeship Institutions and Growth in the Preindustrial Economy. *The Quarterly Journal of Economics*, 133(1):1–70.

- De Munck, B. (2007). *Technologies of learning : apprenticeship in Antwerp guilds from the 15th century to the end of the ancien régime*. Turnhout : Brepols.
- Edwards, J. and Ogilvie, S. (2012). Contract enforcement, institutions, and social capital: the Maghribi traders reappraised<sup>1</sup>. *The Economic history review*, 65(2):421–444.
- Farr, J. R. (2000). *Artisans in Europe, 1300-1914*. New approaches to European history ; 19. Cambridge University Press, Cambridge ;.
- Jackson, M. O. (2010). *Social and Economic Networks*. Princeton University Press.
- Leunig, T., Minns, C., and Wallis, P. (2011). Networks in the Premodern Economy: The Market for London Apprenticeships, 1600—1749. *The Journal of Economic History*, 71(2):413–443.
- Mokyr, J. (2019). The Economics of Apprenticeship. In Prak, M. and Wallis, P., editors, *Apprenticeship in Early Modern Europe*, pages 20–43. Cambridge University Press, Cambridge.
- Munshi, K. (2003). Networks in the modern economy: Mexican migrants in the U. S. Labor market. *Quarterly Journal of Economics*, 118(2):549–599.
- Ogilvie, S. (2019). *The European Guilds*. Princeton University Press.
- Ogilvie, S. (2020). Guilds and the Economy. In *Oxford Research Encyclopedia of Economics and Finance*. Oxford University Press.
- Schalk, R. (2019). Apprenticeships with and without Guilds: The Northern Netherlands. In Prak, M. and Wallis, P., editors, *Apprenticeship in Early Modern Europe*, pages 187–216. Cambridge University Press, Cambridge.
- Schalk, R., Wallis, P., Crowston, C., and Lemerrier, C. (2017). Failure or Flexibility? Apprenticeship Training in Premodern Europe. *The Journal of Interdisciplinary History*, 48(2):131–158.
- Wallis, P. (2008). Apprenticeship and training in premodern England. *Journal of Economic History*, 68(3):832–861.
- Wallis, P. (2019). Between Apprenticeship and Skill: Acquiring Knowledge outside the Academy in Early Modern England. *Science in Context*, 32(2):155–170.
- Zeev, N. B., Mokyr, J., and van der Beek, K. (2017). Flexible Supply of Apprenticeship in the British Industrial Revolution. *The Journal of Economic History*, 77(1):208–250. Edition: 2017/02/21 Publisher: Cambridge University Press.