Patrick Wallis April 28th, 2025

Apprenticeship and economic growth in early modern England

In this extract from the introduction to his new book, ***The Market for Skill: Apprenticeship and Economic Growth in Early Modern England, Patrick Wallis*** *explains how apprenticeship transformed England's workforce from the 16th to 19th century, fostering human capital, innovation, urbanisation and economic growth.*

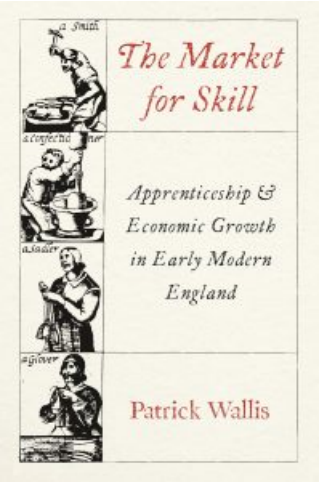
The Market for Skill: Apprenticeship and Economic Growth in Early Modern England. **Patrick Wallis. Princeton University Press. 2025.**

Globally, apprenticeship is one of the most durable and widespread economic institutions. Understood broadly as an agreement to exchange labour for training in a trade over a specific period, apprenticeship is almost a human universal, found everywhere from the shop floors of advanced engineering companies to the tracks trod by Kalahari hunters, from classical Rome to modern Japan. Yet, in few periods or places has it equalled the prominence that it possessed in early modern Europe. There, a specific form of apprenticeship defined by a formalised contractual agreement enforceable at law became a near ubiquitous experience for youths with any aspiration beyond a life of farming, service, or unskilled labour.

In England, when the share of youths training through apprenticeship reached its peak, up to one-third of teenage males would be indentured to serve a master and learn one of a myriad of crafts or trades. Until 1800, the amount of time and money directly invested in human capital formation through apprenticeship outstripped that spent on primary, secondary, or tertiary schooling.

The impression of premodern apprenticeship given by much popular and academic writing is of an archaic, inflexible, overly long period of training rooted in exclusive guilds that monopolised trades. Children had little choice about their futures. Apprenticeship was highly traditional. It had little, if any, connection to innovation. And, in England at least, it had "failed" by the nineteenth century, or "declined" even earlier. In parallel, but now less prominent, is another, more romantic version in

which every artisan had an apprentice, and “skills were recognised, valued and freed”. Both are misleading.



This book presents a new account of apprenticeship and the market for skill. It examines how apprenticeship operated in England from the early sixteenth to the start of the nineteenth century and the consequences this had for economic and social development in this transformative period. This was the era of the Statute of Artificers (1563), the Elizabethan law that made service as an apprentice a legal requirement for those working in many occupations outside farming. Its abolition in 1814 is the event that provides the endpoint for this study. It was also a time of remarkable urbanisation, structural change, and economic development – changes that flew in the face of the intentions of those who wrote the statute, and that I argue were made possible, in part, by the way apprenticeship mobilised labour and diffused knowledge in the English economy.

Industrialisation and modern economic growth have involved a parallel and mutually supportive expansion in education and technology, even a “race” between them

Premodern societies are sometimes mischaracterised as possessing little human capital. There is truth in this if we focus on the number of years of education or levels of literacy, both of which are common measures of human capital today. But the problems with this idea are obvious if we think of the amount of physical skill and tacit knowledge and understanding possessed by craftsmen, traders, and farmers as they wrestled with the everyday challenges of economic life, their depth of understanding about the materials and markets they worked within, and the body of slowly acquired techniques and “recipes” they possessed, the prescriptive knowledge that was integral to production and exchange. It is more accurate to see premodern societies as endowed with high levels of tacit and prescriptive knowledge.

One reason for this mistaken assumption about the level of premodern human capital is what came next. Industrialisation and modern economic growth have involved a parallel and mutually supportive expansion in education and technology, even a “race” between them in Goldin and Katz”s

powerful interpretation. This has been tied to a general shift in the scale and contribution of science and research to the economy, which increased the pace with which technology advanced and prosperity grew.

How apprenticeships transformed premodern England

Accompanying this has been an equally important change in the structure of production that has led to greater differentiation in skills between roles and workers. The increasing division of labour, standardisation, and new tools and machines all served to lower the degree of embodied manual skill required of many roles. In this context, general academic skills and knowledge – literacy, numeracy, science –become more important than technique, and their distribution may become more unequal in sectors or occupations where the workforce becomes divided between a small elite of "thinkers" and a larger body of "labourers". As a result, one kind of deskilling, a loss perhaps in the degree of manual dexterity or craft technique that Marshall noted, can coexist with an increase in skill or human capital in another dimension, produced through general and higher education.

Apprenticeship was also a key mechanism for […] the spread of new skills, techniques, and technologies

Apprenticeship had two critical roles in the premodern economy. Craftsmen and traders" skills, their techniques and knowledge of how to make and sell, were fundamental to production and commerce. Reproducing these essential skills between generations of workers was a lengthy and challenging process, one that relied on observation and extended practice through immersion in the work itself because much of the knowledge was "tacit" in the sense of being hard, even impossible, to articulate and communicate by description. This continuous replenishment of human capital was largely achieved through apprenticeship.

However, apprenticeship did not just maintain the aggregate stock of economically useful knowledge that skilled workers possessed. It also enabled its expansion and diffusion. The

combination of different types of skills, particularly the complementarity between prescriptive and propositional knowledge, made the techniques inculcated through apprenticeship crucial to the realisation of innovations, to turning ideas into machines, materials, and products. Apprenticeship was also a key mechanism for the next step in this process: the spread of new skills, techniques, and technologies. It was one of the factors setting the pace at which innovation occurred and diffused.

This book extract gives the views of the authors, not the position of the LSE Review of Books blog, or of the London School of Economics and Political Science.

***Main image credit**: New Inventions of Modern Times [Nova Reperta], The Invention of the Clockwork, plate* 5 *by Jan Collaert I ca.1600. **License:** Public Domain via The Metropolitan Museum of Art, New York.*

Enjoyed this post? Subscribe to our newsletter for a round-up of the latest reviews sent straight to your inbox every other Tuesday.

About the author

Patrick Wallis

Patrick Wallis is a Professor of Economic History at LSE, and president-elect of the Economic History Society. His research largely centres on early modern European, and particularly British, economic history, especially how the ways in which young people gained skills developed between 1500 and 1800 and the consequences this had for society and economy.

Posted In: Britain and Ireland | Contributions from LSE Staff and Students | Economics | History | LSE Book | LSE Event