

## Index

- actio*  
*de peculio*, 223  
*tributoria*, 85, 223  
*album iudicum*, 38, 44  
 Alföldy, Géza, 132  
 Allen, Robert, 53  
 animal handlers, 34  
*anniculi probatio*, 155n86  
*annona*. *See* grain, distributions of  
 Aphrodisias, 50, 140  
 Apollonios (*strategos* of Apollonopolites Heptakomia), 187  
 apprentices  
   abused by instructors, 109, 200  
   business contacts established by, 236  
   in funerary inscriptions, 200  
   managing businesses of instructors, 200, 236n101  
   market for constrained  
     by artisans' reliance on freedmen, 190–1  
     by thin product markets, 240  
   trained by slaves, 183  
 apprenticeship  
   boys with deceased fathers and, 201  
   costs of, incurred by instructors, 237–8  
   mediated by strong social ties, 239  
   of slaves, 200  
   opportunity costs of, 176–9  
     restrict access to training, 177–9, 271  
   prevalence of, 199–202  
   sons established in independent careers  
     through, 198–9, 202, 233–8  
   stages of, 176, 236  
   transaction costs of, 108  
     mitigated by relational contracts, 108–10  
 apprenticeship documents, 177, 200, 201, 202, 236–8, 251  
 Apuleius, 50, 93, 126, 140, 243, 251, 257, 259  
*arbitrium boni viri*, 105, 119n177  
 Aretaeus, 88  
 Arezzo, 97  
 Artemidorus of Daldis, 23  
   on career prospects, 23–4  
   on daughters, 249  
   on debt, 3  
   on expulsion from *collegia*, 121  
   on irregular employment, 24  
   on slaves and self-hire, 143  
   on wives, 248–50  
 artisans  
   definition of, 14–15  
   historical approaches to, 3–4  
   sources for, 15–17  
 associations, professional. *See* *collegia*  
 Aubert, Jean-Jacques, 4  
 Augustine, 66, 92  
 Augustodunum, 98  
 Augustus, 38, 174, 246  
 Bagnall, Roger, 196–7  
 bakers, bakeries, 1, 3, 93, 127  
   early modern, 229  
 Bang, Peter, 58  
 bankers, 214  
 bargemen, 34  
 Becker, Gary, 243  
 bedframe makers, 92, 138  
 Birk, Stine, 98  
 blacksmiths. *See* ironworkers  
 Bradley, Keith, 251  
 breakability, 61  
 brickmakers, brickyards, 35  
 Brittany, early modern, 260  
 Brixia, 114  
 builders, building trades  
   bespoke production and, 34–5  
   disintegrated production, 83  
   labor recruitment, 141, 144, 186  
   seasonality and its impact on, 34, 35, 40  
   slaves and freedmen, 128  
   specialization, 86–9

- building contractors (*redemptores*), 88, 89, 103, 141  
 butchers, 261
- Caesar, forum of, 88  
 Camera Iarinae (tailor), 159, 253  
 carpenters, 3, 50, 88, 93, 140  
 casters, casting, 90, 91  
 Cato the Elder, 135, 169  
 Celaenae, 49  
 census returns, from Roman Egypt, 196–7  
*centonarii*. See wool-workers  
 chariot-makers, 92  
 chimneysweeps, early modern, 229  
 Chippendale, Thomas (furniture maker, early modern London), 80, 81, 100  
 Christian congregations, as associations, 121  
 Cicero, 85, 89, 90, 103, 183, 200  
 Claudius, 37  
 cloak-makers, 163  
 coachbuilders, coachbuilding, early modern, 79  
 Coase, Ronald, 73  
*collegia*, 8–9, 68–74, 110–24  
   and economic growth, 21, 124–9  
   and guilds compared, 71–3, 121–4, 182–3  
   and labor placement, 184–5  
   as governance structures, 21, 68, 74, 78, 103, 110–24, 225, 271  
   charters, statutes, and pacts of, 73, 115, 116, 118, 119n176, 121  
   disputes resolved privately within, 118–20  
   elections within, 124  
   family continuity within, 197  
   geographical and social reach of, 122  
   hierarchy within, 123–4  
   intensive human capital fostered by, 124  
   *ius coeundi*, 70–1  
   membership  
     exclusivity of, 115–17, 125–6  
     fees, 116  
     profiles of, in industries supporting intensive specialization, 112–15  
   private regulation of members by, 73  
   private-order enforcement of contracts in, 103, 115–21  
   regulatory role of, in economy, 71–3, 229  
   reputations of members monitored within, 118–20  
   sanctions applied against members by, 120–1  
   *scholae* of, 184  
   slaves excluded from, 126, 127  
   sociability, as a focus for, 69–70, 117, 121–2  
   start-up costs limited by, 125  
   structural similarities between professional and non-professional, 115  
   women excluded from, 126
- collegia*, non-professional  
 Athenian Iobacchoi, 116, 118, 120  
 Sevirii Augustales, 122  
*tenuiorum*, 69  
 worshippers of Diana and Antinous, 116, 120
- collegia*, professional  
*anularii* (ring-makers), 114  
*brattiarrii* and *inauratores* (makers of gold-leaf and gilders), 114  
 bronzesmiths, 115  
*centonarii* (wool-workers), 114  
 dealers of ivory and citrus-wood, 116  
*fabri navales* (shipwrights), 113  
*fabri subaediani* (interior finishers), 112n149  
*fabri tignarii* (builders), 112–13, 113n152, 119, 124  
 goldsmiths, 115  
 ironsmiths, 115  
 ivory and citrus-wood dealers, 120  
*lenuncularii* (lightermen), 114n152  
*negotiantes vascularii* (dealers in tableware), 115n157  
 silversmiths, 110  
*structores* (builders), 112  
*teectores* (plasterers), 113n149  
*vestiarii* (wool-workers and tailors), 114  
 weavers, 110
- coloniae*, 45–6  
 Columella, 42, 135, 145–6, 169, 175  
 commemoration, commemorative practice, 203, 204–9  
   and succession, 203, 206–9  
   freedmen, as commemorators of artisan patrons, 226–7  
   in occupational inscriptions, 205–6  
   of freed and freeborn artisans compared, 204, 209  
   wives, as commemorators of artisan husbands, 226–7  
 comparative evidence, utility of, 18–20  
 concrete, 35, 79  
 consumption goals, 245–55  
   and economic growth, 244, 265–6  
   and household purchasing power, 263–4  
   women's allocation of time affected by, 22, 243, 245, 255–63  
 consumption, Roman and early modern European compared, 60–4  
 contracts, limitations of, 103–6  
 Cornelius Atimetus, Lucius (knifsmith), 130, 139, 163, 165, 187, 270  
 Cornelius Epaphra, Lucius (knifsmith), 130, 163, 165, 187  
 Cornelius Saturninus (carpenter), 50  
*coronarii* (garland-makers), 36  
 courts, seasonality of, 38–9, 46

- Crassus, 128  
 credit, credit management, 81, 84–6, 125, 214, 221, 222–4, 224, 226
- daughters, 216, 232, 250, *See also* women
- de Vries, Jan, 13, 61, 243–4, 265
- Delos, 138
- demand  
   household strategies affected by, 227–38, 263–4  
   labor recruitment affected by, 136, 138  
   middle-income groups, 60–4  
   organization of production affected by, 81, 82, 136  
   Roman world and early modern Europe  
     compared, 101, 238–42, 266  
   seasonal variation in, 5, 21, 26–7, 32–49, 268–70  
     early modern Europe, 27–30  
     uncertainty of, 5, 21, 30–1, 49–65, 268
- Demetrios (silversmith), 99, 100, 108
- Diamond Dealers Club, New York, 120
- Dio Chrysostom, 49
- Diocletian, price edict of, 53, 175
- disease, seasonal, 42, 42n64, 46
- divisions of labor  
   among silversmiths, 66  
   as index of economic performance, 14  
   governance structures and, 67  
   subcontracting and, 81, 96  
   within firms, 3, 93–4, 95–6
- doctors, 166
- dyers, dyeworks, 35, 127, 161
- Echion (*centonarius*, fictional), 200, 201, 202
- economic growth, 9–14, 271–2  
   *collegia* and, 124–9  
   consumption goals and, 13, 265–7  
   empirical challenges to study of, 10  
   limited potential for, 5  
   Malthusian-Ricardian, 11  
   manumission as impediment to, 189–91  
   market coordination and, 11–14  
   Roman historians and, 9–10  
   Roman world and early modern Europe  
     compared, 256, 265–6  
   theoretical challenges to study of, 11
- economies of scale, 77
- Egypt, 141, 142–3, 175, 177, 182, 187, 196
- Ehmer, Josef, 227, 229
- embroiderers, 51
- employment. *See* labor recruitment
- engravers, engraving, 90, 91, 114, 156
- Ephesus, 99, 100
- Epinikos (weaver), 110
- Erdkamp, Paul, 59
- Erickson, Amy Louise, 248
- Eudaimonis (mother of Apollonios), 187–8
- familia Caesaris*, 205n40
- festivals, economic impact of, 35–7, 48
- fides*, 111
- Finley, Sir Moses, 6, 71
- firms, the theory of the firm. *See* transaction costs; governance structures
- Flavius Hilario, Titus (magistrate, builders' association at Rome), 119, 128n216
- food supply, Rome, 59–60
- Francis Place (tailor, early modern London), 30
- freedmen. *See also* manumission; *operae libertorum*  
   accumulation of capital by, 154, 189  
   and epigraphic habit, 204, 209  
   artisans, working in patrons' workshops, 5, 7, 130, 163–4  
   competitors with patrons, 183  
   dependent on former masters, 133  
   family lives of, 157, 204, 209–10  
     manipulated by patrons, 154  
   heirs or legatees of artisan patrons, 154–5, 158, 160, 225–6, 226  
   hired out by patrons, 184  
   juridical status of, manipulated by patrons, 155–6  
   labor costs of, relative, 169–72  
   living apart from former masters, 151  
   manumitted by women, 159, 161, 251, 252, 254–5  
   number of, in Roman population, 209n48  
   power exercised over, by patrons, 153–6  
   trained in workshops of former masters, 158–60, 225
- Freu, Christel, 200
- Frier, Bruce, 196–7
- Friesen, Steven, 57
- Frontinus, 34
- fullers, fulleries, 34, 35, 93, 186, 200
- furniture makers, furniture making, 51, 92  
   early modern, 80, 81, 100
- Gaius, 73, 112, 152, 258, 261
- GDP, Roman world and early modern Europe  
   compared, 57n121, 57
- Geertz, Clifford, 17, 18
- gender. *See* women
- Germanus of Auxerre, 40
- gifts, gift-exchange, 36n37, 36–7
- glaziers, early modern, 179
- Goldin, Claudia D., 150
- goldsmiths, 51, 52, 127, 252, 257
- governance structures, 67–8  
   and specialization, 67

302

governance structures (cont.)  
 firms, 75  
 networks, 102, 108  
   private-order enforcement, 76, 111, 115,  
   117, 120  
   relational contracts, bilateral, 76, 102, 103  
 governors, assizes of, 48–9  
 grain  
   distributions of, 54  
   inelastic demand for, 33  
   prices of, 55, 58, 169n118  
   seasonal price cycle and impact on purchasing  
   power, 33  
 Grantham, George, 11, 12, 13, 266  
 growth. *See* economic growth  
 guilds, early modern  
   and *collegia* compared, 71–3, 121–4, 182–3  
   as governance structures, 102  
   corporate registers of, 137  
   family continuity within, 196  
   internal structure of, 123  
   labor market conditions affected by, 179–81  
   succession affected by, 227–8, 229  
   transaction costs mitigated by inspection  
   powers of, 102  
 Hadrian, 46  
 hairdressers, 257  
 Harper, Kyle, 168  
 harvest, harvest work, 41, 43, 135  
 Holleran, Claire, 64  
 Hopkins, Keith, 132  
 households. *See also* sons; wives  
   as adaptive structures, 194, 195  
   consumption goals of and time allocation  
   within, 243  
   demography and structure of, 201, 209,  
   217n64, 217–18, 218n65  
   family economy model of, 195, 196  
   income diversification in, 227, 231, 233  
   nuclear family plus model of, 194  
   strategies  
     and gender ideologies, 195  
     and startup costs, 232  
     as response to seasonal and uncertain  
     demand, 195, 227–38  
   historiography of, 194  
   life cycle and, 231  
   of individuals within, 194  
   sophistication of, 192–3, 224–5  
 succession, 203–27  
   artisans compared to professionals and  
   wholesalers, 214–16  
   capital assets and, 229, 231, 234, 235n96  
   commemoration as evidence for, 203

*Index*

correlation with household labor  
 management, 203  
 manumission and impact on, 209–12  
 son-to-father succession infrequent among  
 artisans, 209, 212–20  
 wives and freedmen preferred by artisans as  
 heirs, 160, 204, 220–7  
 human capital, 66  
   intensive, 67, 78, 81, 124, 129  
*imperitia*, 105  
 income distribution, 57  
 incomes. *See* purchasing power  
*infamia*, 45  
 inscriptions, funerary  
   economic profile of population attested in,  
   222n69  
   family relationships in, 206  
 inscriptions, occupational, 204–5  
   adult men overrepresented in, 212  
   commemorative conventions in, 205–6  
   economic and demographic profile of  
   population attested in, 212–14,  
   216–20, 222  
   formal indications of status rarely used in, 210  
   freed and freeborn difficult to differentiate in,  
   210–12  
   freedmen overrepresented in, relative to  
   freeborn artisans, 204, 209  
   manumission in exchange for *operae* attested  
   indirectly in, 157–66  
   nomenclature an unreliable indicator of status  
   within, 210–12  
   succession documented indirectly by, 203–4  
 insolvency, 81, 84, 85  
 investments, of wealthy Romans, 127  
 Irni, 45, 48  
 ironworkers, 130, 251, 254  
*iudices per omnem Italiam*, 46, 46n81  
 Iulius Helius, C. (shoemaker), 162  
*ius coeundi*, 69  
 jewelers, 51, 254–5  
 Joshel, Sandra, 7, 91, 128, 159, 165  
 Joshua the Stylite, 47  
 journeymen's associations, early modern, 179,  
 181–2  
 judicial calendar, 46  
 Julian, 109, 166–7, 200, 201  
 Junian Latins, 155–6  
 Juvenal, 37  
 Kampen, Natalie, 246, 261  
 Kleijwegt, Marc, 35  
 Knapp, Robert, 5

- labor  
 demand for  
   of family members, 227, 228, 231, 232  
   skilled vs. unskilled, 185–7  
   relative costs of servile and hired, 169–72
- labor markets  
 low-skill equilibrium trap, 191  
 organization and job placement, 184–5  
 Roman world and early modern Europe  
   compared, 189
- skilled segments  
 high transaction costs in, 22, 134, 172–85  
 Roman world and early modern Europe  
   compared, 182–5  
 tightness of, 173–9  
 transaction costs high in, 187–8, 271  
 unskilled and semi-skilled segments, 107,  
   174–5, 186  
 transaction costs low in, 186
- labor recruitment  
 agricultural, 141  
 hoarding, 136, 137  
   and short-term contracting compared,  
   146–7  
 manumission as preferred strategy of, 168–89  
 responses to seasonal and uncertain demand,  
   136, 138  
 spot markets and short-term contracting, 136,  
   137–8, 140–6
- Lancaster, Lynne, 88
- leatherworkers, 185
- lex*  
*Acilia*, 38  
*Aelia Sentia*, 155, 166, 209, 211  
*Coloniae Genetivae*, 45n79  
*Falcidia*, 225n78  
*Junia*, 155  
*parieti faciundo*, 83, 86  
*Rubria*, 45
- Liberalia, 35–6
- Liu, Jinyu, 71
- locatio-conductio*, 105
- locksmiths, early modern, 137
- London, early modern, 91, 137, 147, 240, 248,  
   259, 262
- long eighteenth century, 238, 244, 256, 265
- Lucian of Samosata, 200, 251, 257  
 apprenticeship of, 201–2, 232–3, 239
- magistrates, local, jurisdiction of, 45, 48
- malaria, 42
- manufactured goods  
 bespoke, 79, 83, 139  
 populuxe, 80, 83, 139  
 undifferentiated, 79, 81, 139
- manumission. *See also* freedmen; *operae  
 libertorum*  
 citizenship conferred by, 155  
 economic growth impeded by, 134, 189–91  
 formal, restrictions on, 209  
 informal, 155–6  
*inter vivos*, 130  
 artisan slaveholders and, 133, 160–3  
 slaveholders' motivations for engaging in,  
   130–3, 165–6
- labor obligations imposed in exchange for  
 as cost-mitigation strategy, 151–2  
 as hoarding strategy, in response to seasonal  
   and uncertain demand, 22, 134, 136, 147,  
   149–57, 166–7, 271  
 as response to high transaction costs, 22,  
   168–89  
 enforced by patrons, 153–6  
 epigraphic evidence, 157–66  
 limits demand for apprentices, 190–1  
 self-purchased by slaves, 133
- marble statuettes, manufacture of, 95
- Marcus Aurelius, 46
- market integration, 20, 58–9  
 early modern, 20
- marriage  
 between patron and freedwoman, 211–12  
*in manu*, 193  
 seasonal patterns of, 41  
*sine manu*, 193n3
- Marseilles, early modern, 137
- Martial, 36
- Martin, Susan D., 105
- Mayer, Emanuel, 62
- Mecia Dynata, 192–3, 211
- menders, 35, 258
- Ménétra, Jacques-Louis, 181n163, 197n14
- mercennarii*, 146n49
- merchants, 214
- methodological individualism, 6
- migration, long-term, 185
- migration, seasonal. *See also* travel, seasonal  
 demand affected by, 37, 39, 41  
 early modern Italy, 40  
 Italian and provincial cities  
   disease avoidance, 46–7  
   labor migration, 47  
   landowners and demands of estate  
   management, 47
- Rome  
 disease avoidance, 41–2  
 labor migration, 39–41, 174  
 landowners and demands of estate  
   management, 42–3
- women and, 174

- Morel, Jean-Paul, 97  
 Morley, Neville, 40  
 mortality, 42, 46, 46n85. *See also* households:  
   demography and structure  
 Mouritsen, Henrik, 133, 134, 157, 165  
*municipia*, 45–6, 48  
 Musgrave, Elizabeth, 260
- Naevius Helenus, Lucius, 155, 160  
 New Institutional Economics (NIE), 17–18  
 nucleated workshops, 97
- operae fabriles*, 153, 226n80  
*operae libertorum*, 133–4. *See also* manumission;  
   *paramone*; freedmen  
   capital accumulation by freedmen impeded  
   by, 226  
   discharged at freedman's expense, 151–2  
   evidence for importance of, 157–67  
   freedwomen and, 163–4  
   Junian Latins and, 156n88  
   limitations on patrons' claims to, 153, 156–7  
   performed at the convenience of patrons, 153  
   quantity demanded by slaveholders in  
   exchange for manumission, 148–9  
   skilled labor and, 152–3  
*operae officiales*, 153  
 opportunism, 75, 106  
 Ostia, 34, 113  
 Ovid, 37  
 Oxyrhynchus, 108, 110, 178, 202
- Papinian, 52, 84, 224  
*paramone*, 148, 151, 152  
 Paris, early modern, 179, 181, 230  
 Patrae, 47  
 Paul (Roman jurist), 144, 145, 151, 175  
 Paul (the Apostle), 33, 126, 185  
 Pausanias, 47  
 Pausiris (weaver), 109–10, 202, 233–4, 235–6,  
   236, 237  
 pearl-sellers, 205  
 Pearse, J.L.D., 113  
 peasants  
   and manufacture, part-time, 82, 139  
   labor productivity, 39–40  
   seasonal migration, 40  
*peculium*, 85, 132–3  
   and self-hire by slaves, 144, 146  
   *concessio liberae administrationis*, 132, 144  
   freedom purchased by slaves from, 133, 165  
   granted to children in *potestas*, 258  
   liquidated to repay slaves' debts, 223  
 Perge, 48  
 periodic markets (*nundinae*), 82
- Petronius, 200, 201  
 Pfister, Ulrich, 101  
 Place, Francis (tailor, early modern London), 25  
 plasterers and stucco workers, 87, 144  
 Plautus, 51, 84  
*plebs frumentaria*, 54, 55, 56n116  
 Pliny the Younger, 37, 43, 121  
 Plutarch, 128  
 Pompeia Memphis (goldsmith), 252, 253  
 Pompeii, 62, 94, 260, 261  
 Pomponius, 246  
 porters, 34  
 Portus, 113  
*potestas*, 157, 168, 193  
 potters, potteries  
   Campanian ware, 97  
   *terra sigillata*, Arretine ware, 97–8, 138  
 prices  
   fluctuations, short-term, 58–60  
   mitigation of, 59  
   vulnerability to, 59–60  
   grain, 55, 58, 169n118  
   limited evidence for, 53  
   of slaves, 169, 175  
   workshop space, 235n96  
 printers, printing, early modern, 230  
*probatio*, 105  
 product markets. *See* demand  
 production  
   disintegrated, 77  
   of bespoke goods, 30, 49–52, 86–93  
   of populuxe goods, 95–101  
   of undifferentiated goods, 93–5  
   for inventory, 82, 84  
   integrated within firms, 75, 77  
   and economies of scale, 77  
   factors militating against, 82, 136, 270  
   in capital-intensive trades, 93  
   inelastic demand and impact on, 94  
   stimulated by proximity to raw  
   materials, 95–6  
   regularization of  
   limited opportunities for, 139–40  
   stimulated by export markets, 137, 138–9  
   specialization  
   and network governance, 78  
   builders, 87  
   facilitated by *collegia*, 124, 129  
   silversmiths and goldsmiths, 66, 89–91  
   subcontracting  
   and weak demand for populuxe goods,  
   100–1  
   bronzesmiths, 98–9  
   builders, 87  
   in early modern Europe, 79–81, 91–2, 94

- preferred to integration, 21, 81, 86, 136, 271
  - sculptors, 98
  - silversmiths and goldsmiths, 67, 99
  - strategic response to seasonal and uncertain demand, 68
- professional services, 214
- purchasing power
  - freedmen, 190
  - middle-income groups, 60–4
  - praetorian guardsmen, 55n115, 55
  - uncertain demand exacerbated by, 57–60
  - unskilled workers
    - Diocletian's edict, 53, 263n181
    - early modern Europe, 53
    - Roman Egypt, 53, 54n111, 263n181
  - urban cohorts, 56
  - urban population
    - aggregate, 53–7
    - average, 56
- purple-sellers, 85
- Puteoli, 34, 83
- quality, in contracts, 75, 104–6
- reciprocity, 6, 7–9, 76
- rents, for workshop space, 235n96
- reputation, 8, 111–12
  - and coordination of production, 9
  - and New Institutional Economics, 18
  - and private-order contract enforcement, 76, 103, 111–12
  - and social norms, maintenance of, 111
  - value of, within *collegia*, 115–16, 117
- retail
  - artisans and, 64
  - ready-made goods, of, 51, 51n103
- retailers, 214, 231
- street traders, 64–5, 82, 174, 258
- revocatio Romae*, 46n81
- risk
  - demand and, 5, 140, 167
  - integrated production and, 82, 270
  - investment behavior among elite and, 127
  - investment in training of slaves and, 126
  - tolerance for, 146, 191, 237
  - vulnerability to, 263
- Rome
  - Cermalus Minusculus, 161
  - food supply, 33
  - peak season for consumer demand, 21
  - population, seasonal fluctuation in, 37–8
  - Sacred Way (*sacra via*), 92
  - tabernae* in, 260
  - Vicus Tuscus, 159
- Rosser, Gervase, 102
- Roth, Ulrike, 132
- Rouen, early modern, 137, 138
- Royden, Halsey, 124
- Saittai, 114
- Saller, Richard, 175, 206, 210, 212–14, 217, 218n65, 243
- salt-dealers, 73, 78
- Samothrace, Samothracian mysteries, 48
- sarcophagi, manufacture of, 84n54, 96
- Saturnalia, 36
- sawyers, 143
- Scaevola, 144, 251
- Scheidel, Walter, 11, 53, 57, 150, 174
- sculptors, 50, 98, 140, 232
- seasonality
  - early modern Europe
    - climatic factors, 27–8
    - social factors, 28–30
  - Roman world
    - climatic factors, 21, 33–5, 268
    - social factors, 21, 35–46, 268
- Secundinii, 82
- selecti*, 38, 45
- Senate, annual recess, 38, 38n50
- Seneca the Younger, 37
- Shaw, Brent, 41, 206, 210, 212–14
- shipping season, 33–4, 48
  - economic impact of, 34
  - maritime loans and interest, 34
- shipwrights, 34, 142
- shoes, shoemakers, 50n98, 109, 144, 162
  - early modern, 81, 137
- sigilla*, 36
- Sigillaria, 36
- silversmiths, 66–7, 89–92, 108, 127, 140
  - riot of, in Ephesus, 99–100
- Simitthus, 95, 96
- skill. *See also* apprenticeship; human capital
  - identity and, 14
  - Roman contracts and, 105
- slaveholders, wealthy, 126–9
- slavery
  - as labor-hoarding strategy, 147
  - economic costs and benefits of, in Roman literature, 135
  - in antebellum United States and British North America, 144–5, 149–51, 183
  - potestas* expressed by, 135, 168
  - social vs. economic motivations for, 168
- slaves
  - agricultural labor and, 135
  - apprentices, 200
  - artisans, operating businesses, 1, 85, 126, 127, 132, 183, 223

- slaves (cont.)  
 artisans, owned or manumitted by wealthy slaveholders, 127–9, 159–60  
 excluded from *collegia*, 126, 127  
 hired by artisans, 144  
 hired out by owners, 143, 149–51, 184  
 labor costs of, relative, 169–72  
 managers of owners' businesses, 183  
 overseers (*vilici*), 43  
 prices of, 107, 169, 175  
 self-hire by, 132, 143–6, 174  
 working alongside artisan owners, 89
- Smith, Adam, 30, 137
- Snettisham, 139
- social relations, strategic use of, 6–9, 271
- Sonenscher, Michael, 28, 138
- sons  
 apprenticed or employed outside of their natal households, 198, 199, 201–2, 220–7  
 as response to demand conditions, 22, 198, 227–38, 241–2  
 in early modern Europe, 195–6  
 patterns of succession as evidence for, 203, 204  
 family enterprises and, 195, 196  
 in early modern Europe, 229–30, 240–1  
 independent careers of, 194, 196, 198  
 infrequent successors to artisan fathers, 209, 212–20  
 succession to professionals and wholesalers, 214–16
- specialization. *See* production
- spinners, 243, 247, 258, 259
- Stabiae, 87
- standards of living, 54–5. *See also* purchasing power
- Statilii Tauri, 128
- stipulatio*, 105
- stonemasons, 87, 144
- subcontracting. *See* production
- substantivism, 6
- succession. *See* households
- Suetonius, 38
- swordsmiths, 159
- tabernae*, 64, 260
- Tacitus, 60
- tailors, 159, 161  
 early modern, 138, 231n89
- textile production, rural, 82
- thick market externalities  
 as drivers of intensive growth, 12, 244, 265  
 inhibited by coordination problems, 125  
 limited in Roman world  
 by exclusivity of *collegia*, 125  
 by household consumption goals and women's allocation of time, 265–6  
 by manumission in exchange for labor obligations, 189–90
- tombstones, Christian, 42
- Trajan, market of, 88
- transaction costs, 17, 18, 73–5  
 governance structures and, 75–8, 101  
 intensive human capital inhibited by, 124  
 labor recruitment and, 168–89  
 legal institutions and, 74, 103–6  
 production and  
 bespoke and populuxe goods, 103–6, 107–8  
 undifferentiated goods, 106–7  
 strategic responses to, 5  
 subcontracting arrangements and, 106  
 thick market externalities and, 265
- travel, seasonal. *See also* migration, seasonal  
 demand affected by, 37, 41  
 Italian and provincial cities  
 judicial business, 48–9  
 tourism and *theoria*, 47–8
- Rome  
 judicial business, 44–6  
 political business, 44  
 tourism and *theoria*, 43–4
- Treggiari, Susan, 6
- trust  
 apprenticeship and, 109, 239  
*collegia* and, 115, 118  
 governance structures and, 76–7, 102, 111  
 production strategies anchored in, 5, 6, 7–8
- Tryphon, son of Didymos (weaver), 233
- Tryphon, son of Dionysios (weaver), 202, 233–4, 235, 236–8
- turners, 93
- Ulpian, 87, 144, 148, 200, 223, 261
- uncertainty, 49–65  
 aggregate purchasing power and, 21, 52–64  
 bespoke production and, 21, 49–52, 269  
 commercial structure as evidence of, 64–5  
 in early modern Europe, 30
- underemployment, 30, 107, 175, 259
- van Nijf, Onno, 71, 72
- Varro, 135
- vascularii*, 90, 91, 154, 158, 160, 163, 198
- Venuleius, 87, 141
- Verboven, Koenraad, 8
- Verecundus (felt-maker), 261
- Vergilius Eurysaces, Marcus (baker), 1–3, 93, 268, 270
- Veturia Flora (dyer), 161, 253
- Veyne, Paul, 8



- Vienna, early modern, 229  
 vinedressers, 169  
 vintage, 43, 135, 141  
 Vitruvius, 200
- wages. *See also* purchasing power  
 and compensation of apprentices compared,  
 237–8  
 at Mons Claudianus (Roman Egypt), 178n151  
 limited evidence for, 53, 169, 169n119  
 skill premiums, 175
- Wakelin, Edward (goldsmith, early modern  
 London), 91, 102
- Waldstein, Wolfgang, 133
- Wall, Richard, 195
- Wallace-Hadrill, Andrew, 61, 62–3
- weavers, 108–10, 142, 186, 202, 233–4, 237–8
- wetnurses, 258
- wheelwrights, 92, 158, 205
- wholesalers, 214, 232
- wigmakers, early modern, 137, 138
- wills, testaments, 132, 154–5, 160, 192, 193, 204, 251
- wives. *See also* women  
*custodes* or *oikouroi*, 245, 249–50, 255, 257, 260  
 heirs to artisan husbands, 225–6, 226  
 household tasks prioritized by, 7, 257, 259  
 idealized roles within household, 245–7  
 income-generating potential, 248–49, 264  
 income-generating work  
 ancillary and managerial tasks performed  
 within the household, 259–61  
 independent proprietorship, 257  
 wage labor and contracting, 257, 258–9  
 working alongside husbands, 248, 252  
*institores*, 261  
 production by, for internal household  
 consumption, 246–7  
 under *potestas* of their fathers, 259
- women. *See also* daughters; wives  
 allocation of time within the household,  
 242–4, 256–63  
 economic performance and, 244  
 growth and, 22, 195, 243, 256, 265–6  
 household tasks prioritized by, 245–55, 255  
 impact on household purchasing power and  
 aggregate demand, 263–4  
 relative productivity of labor and, 256, 257  
 Roman world and early modern Europe  
 compared, 261–3  
 threshold income and, 256, 259  
 apprenticeship and training, access to  
 enhanced in early modern Europe by  
 changing consumption goals, 248  
 impact of slavery on, 242, 253  
 limited in Roman world, 164, 242, 250–5  
 artisans, infrequently attested as, 163, 164  
 business owners, 51n103, 251, 252  
 commemorated chiefly as wives and  
 mothers, 246  
 depictions of, in art  
 early modern, 247  
 Roman, 246  
 excluded from *collegia*, 126, 226  
 gender ideologies, economic impact of, 6–7,  
 195, 242  
 income-generating work, 242  
 inherited businesses, management or  
 liquidation of, 251, 252, 254–5  
 legally independent (*sui iuris*), 193, 193n3  
 patrons of freed artisans, 159, 161, 251, 252,  
 254–5  
 property rights of, 193  
 textile work at Patrae, 47  
 wool-workers, 71, 192, 193, 200, 257
- Z-commodities, 243, 257n160