

What did retirement cost back then?

Commercial old age provisions in St. Jorishof Amsterdam and St. Catherine's and St. Cecilia's hospitals Leiden, 17th-18th centuries

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*We present an analysis of the prices of corrody contracts in early-modern Holland. Such contracts provided food, drinks, housing and basic care; they were especially popular among people in their late fifties and early sixties who were looking for an untroubled old age. Initially, corrodies in the luxurious St. Jorishof Amsterdam were available for those who could spend the equivalent of 2000 day wages; a life-long stay in the hospitals of St. Catherine and St. Cecilia, in Leiden, started out at 300-400 day wages. Real corrody prices, however, seem to have doubled between 1600 and 1800. We discuss the implications of reduced access to retirement in terms of social history, suggesting that friendly priced corrodies allowed for an 'emancipation' of ageing parents in relation to their children in the late Middle Ages. We also suggest that the various types of retirement were closely linked to individuals' sense of social status: old age should be spend in a respectable place. For higher middling groups this was a proveniershuis such as St. Jorishof, for lower middling groups a stay in a hospital. Finally, with respect to financial history, our data suggest that corrodies continued to be a viable alternative for life annuities throughout the early modern period. We suggest that by investing in corrodies, buyers transferred the risk of inflation to the seller, and thus reduced their dependency on the unpredictable market economy.**

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Introduction

We study institutions that provided long-term care to the elderly in two of the largest towns of Holland, the merchant city Amsterdam and textile center Leiden. These institutions operated on a commercial basis, providing the necessities of life and infirmity to ageing individuals. The latter would purchase a care-free old age regardless of their longevity. Since individuals cannot predict their longevity, old-age provisions should ideally take the form of a lifelong fixed income, either in kind, as with corrodies, or in cash, as with life annuities.

Commercial old-age provisions have received surprisingly little attention. When early-modern elderly are discussed, they are usually equated with the poor. Impoverishment was a real threat, since old age brings physical and mental deficiencies: reduced mobility, arthritis, dementia etc. lowered labour participation, and reduced self-sufficiency. However, this needed not result in a dreadful old age among the elderly, as people could prepare for old age. The question how people from urban elites or middling groups prepared for old age, how they prevented impoverishment and joining the ranks of the elderly poor, is highly relevant for our understanding of social and economic history. How did ageing individuals use their capital assets, as well as human, social and cultural capital, to prepare for old age? What were people from different social groups willing to spend on a respectable old age? How did their spending affect financial markets, in terms of lifecycle saving anticipating retirement, and in terms of demand for the financial instruments best suited to realize this? And how did retirement affect relations between parents and children – or perhaps more accurately: testators and heirs?

Ageing individuals from elites and middling groups had sufficient agency to prepare for old age: in Amsterdam and Leiden many hundreds made sure they would receive necessities of life even when they were no longer able to work, cook or do groceries. They realized this within the realm of the household economy: for these individuals the lifecycle of the household was characterized by

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capital accumulation through receiving, buying, investing, and saving during an initial phase, and using this to enable retirement during a later phase.¹ On the other hand many households did not require such preparations because children would be able to support their parents during old age, or they could not make such preparations out of poverty. It is this latter group that has caught the eye of historians. A growing literature focuses on households – including those of the elderly poor – depending on the many poor relief institutions of the Dutch Republic.² Marco van Leeuwen focuses on social redistribution, discussing aid to the poor in terms ranging from self-interest of elites and middling groups, to altruism.³ In Amsterdam and Leiden we encounter members of the elite who built *hofjes* aiming to accommodate widows or the elderly, but also middling and lowering groups contributing to collections for poor relief.⁴ Participation in social institutions, especially financial contributions, entitled members to poor relief. This was true for the many church denominations in Dutch towns, who all provided poor relief to their members, and for craft guilds.⁵ Town governments could even be particularly generous: Maarten Prak and Jan Luiten van Zanden argue that the majority of the urban poor were not citizens, but were nevertheless ‘to some extent considered as citizens, be it as second-class citizens’. Accordingly, they were entitled to basic civic poor relief.⁶ Such charities were undeniably important in the Dutch Republic. However, for middling groups and elites being on

¹ The objective, to insure quality of life, is perhaps best captured in Franco Modigliani’s permanent income hypothesis, which predicts that households try to stabilize consumption, by saving when they could, and using savings when they had to (F. Modigliani, ‘The life cycle hypothesis of saving, the demand for wealth and the supply of capital’, *Social Research* 31 (1966) 160-217). Cf. applications in historical research: T. de Moor and J. Zuijderduijn, ‘Preferences of the poor: market participation and asset management of poor households in sixteenth-century Holland’, *European Review of Economic History* 17 (2013) 233-249 ; U. Pfister, ‘Rural land and credit markets, the permanent income hypothesis and proto-industry: evidence from early-modern Zurich’, *Continuity & Change* 22 (2007) 489-518; L. Di Matteo, ‘Wealth accumulation and the life-cycle in economic history: implications of alternative approaches to data’, *Explorations in economic history* 35 (1997) 296-324.

² A. Schmidt, *Overleven na de dood. Weduwen in Leiden in de Gouden eeuw* (Amsterdam 2001); H. van Wijngaarden, *Zorg voor de kost. Armeenzorg, arbeid en onderlinge hulp in Zwolle 1650-1700* (Amsterdam 2000).

³ M.H.D. van Leeuwen, ‘Logic of charity. Poor relief in preindustrial Europe’, *The journal of interdisciplinary history* 24 (1994) 589-613).

⁴ D. Teeuwen, ‘Collections for the poor. Monetary charitable donations in Dutch towns, c. 1600-1800’, *Continuity & change* 27 (2012) 271-299.

⁵ M.H.D. van Leeuwen, ‘Guilds and middle class welfare, 1550-1800: provisions for burial, sickness, old age, and widowhood’, *The economic history review* 65 (2012) 61-90.

⁶ J.L. van Zanden and M. Prak, ‘Towards an economic interpretation of citizenship. The Dutch Republic between medieval communes and modern nation-states’, *European review of economic history* 10 (2006) 111-147, pp. 124.

welfare had severe social repercussions: for them this entailed social descent, turning them into 'shame-faced poor'.⁷ Another disadvantage of social welfare was its unreliability with respect to the quality and quantity of support, as well as the social control it entailed with respect to social and religious morality. Our research suggest that people who could afford this rather turned to commercial care: this did not entail social descent, was based on an actual contract between the supplier and receiver of care, and probably involved less social control.

The first signs of this commercialization of care are already visible in the Middle Ages. Monasteries occasionally took in paying customers: people who paid an entry sum, and in return received a right to food, drinks, fuel, care and accomodation on the monastic premises. For abbots this was a way to attract ready money, and to make best use of any vacant buildings. The extent of this practise appears to have been limited to a few 'corrodians' per institution – although there is evidence that such care packages were in demand.⁸ Large-scale suppliers of care first emerged when poor relief institutions, such as hospitals and leprosaria, decided to enter the market, mainly for financial reasons. In Amsterdam, the St. Peter's hospital took in at least several dozens of paying customers – corrodians – around 1500. In Leiden St. Hiëronymusdal, an abandoned monastery located right outside the town walls, was exploited as an old folk's home since 1531; again, inhabitants were paying customers.⁹ Our knowledge of the development of such institutions is opaque: there are numerous examples of institutions that began to provide commercial care after c. 1500, and that attained a certain level of specialization (such as the St. Catherine and St. Cecilia hospitals in Leiden) or even complete specialization (such as St. Jorishof Amsterdam). Their origins could be monastic (such as St. Hiëronymusdal Leiden) or in health care (St. Jorishof Amsterdam used

⁷ Cf. S.E. Dinan, *Women and poor relief in seventeenth-century France. The early history of the daughters of Charity* (Aldershot 2006) 33.

⁸ In 1388 the town government of Leiden issued a bylaw prohibiting further admission of of corrodians to St. Catherine's hospital. In 1401 this bylaw was renewed (C. Ligtenberg, *De armezorg te Leiden tot het einde van de 16e eeuw* (the Hague 1908) 28, 30.

⁹ See Zuijderduijn, 'St. Hiëronymusdal'.

to be a leprosarium), or even poor relief,¹⁰ but there are also examples of newly established institutions, such as ‘corrodian’s homes’ (*proveniershuizen*) in Schiedam and Edam.¹¹ In many institutions the sick and poor cohabitated with corrodians who had paid for their stay. Other residents also paid, but not for lifelong care like corrodians, but by the week; these people stayed in hospitals such as St. Catherine’s and St. Cecilia in Leiden while recovering from an illness or accident. As a result, the only way to track down corrodians is by looking at the contracts they agreed with the directors of the institutions they stayed with.

Yet, it seems that institutions (partly) specializing in commercial old age provisions emerged in the sixteenth century in particular. Universal poor relief was typical for the Middle Ages, when society highly valued ‘good works’, regardless of the moral status of the recipients. Back then, hospitals were open to pilgrims, travellers and vagrants, who could sleep at no cost in a hall (called *baaijerd* in medieval Dutch). This open character of hospitals disappeared in the sixteenth century, when under the influence of humanist writers such as Juan Luis Vives (1492/1493-1540), author of *De subventionem pauperum* (1526), society’s attitude towards the poor hardened.¹² This might have created an excess of places in poor-relief institutions: orphans, widows and the elderly – the deserving poor – continued to be entitled to poor relief, whereas the often able-bodied vagrants should find a job (in the seventeenth-century they were even put to work). At the same time early reformatory movements reduced the popularity of monasticism. Convents gradually became depopulated, or were confiscated after the beginning of the Dutch Revolt. Either way, town governments faced the question what to do with these relatively large buildings. In Leiden, they decided to turn St. Hiëronymusdal into an old folks home; St. Catherine’s was granted the use of a confiscated church and turned this into a nursing hall (until the eighteenth century it is referred to as

¹⁰ Arend Maartenshof in Dordrecht started out as a typical *hofje* aimed at poor relief, but over time also admitted corrodians.

¹¹ C. Boschma-Aarnoudse, *Preuve en proveniershuis, Edam. Armenzorg in de 16^e eeuw en de geschiedenis van het proveniershuis* (Edam 1987); H. Schmitz, *Het proveniershuis te Schiedam. Vijf eeuwen instelling van weldadigheid* (Schiedam 1966).

¹² See Prak, ‘Armenzorg’.

the 'church hall'). A relatively new group of people who had prudently prepared for old age was to inhabit these large structures, often accompanied by the deserving poor.

To study these corrodians, we use data based on more than 1700 corrody contracts. For Amsterdam we use a ledger of corrody contracts of the St. Jorishof, covering 1600-1799,¹³ for Leiden we use several registers of the St. Catherine's and St. Cecilia hospitals covering 1665-1799.¹⁴ The data cover a variety of institutions: a *proveniershuis* (St. Jorishof) and two hospitals that combined temporary paid care of inmates with long-term care of corrodians. Together these institutions provide a long-term view of the cost of retirement – or perhaps more accurately: the cost of life-long care packages – under various conditions. The next section describes the different types of corrodies we encounter, the following section provides evidence of the increase of real corrody prices, and the final section discusses implications for social and financial history.

Corrodies

In general, there were three types of corrodies:

1. One including a right to stay in a small house, apartment or room, as well as food, drinks, lighting and fuel, and medical attendance. The recipient was called *provenier*.
2. One including a right to stay in a bed in the hall, as well as food, drinks, help and medical assistance. The recipient was called *commensaal*, or *conventueel*.
3. One only consisting of food, drinks, and sometimes lighting and fuel. The recipient of this *preuve* – which is perhaps best comparable to today's 'meals on wheels' programme – was supposed to stay at home.

¹³ SA, Sint Jorishof, Leprozenhuis, en Oude mannen- en vrouwengasthuis, inv. nr. 8.

¹⁴ RAL, Archief gasthuizen, inv. nrs. 37 and 58.

Suppliers of corrodies differed a great deal: St. Jorishof in Amsterdam specialized in *proveniers*, exploiting several small *proveniershuizen* all located on the same grounds. The St. Catherine and St. Cecelia hospitals in Leiden only had a few *proveniershuizen* and focused much more on the housing of many dozens of *commensalen*¹⁵ in several nursing halls.¹⁶ The third category, which existed in Utrecht in the nineteenth century, is not discussed in this paper – although future research should deal with this type of institutional care for those elderly living by themselves.

These care packages were intended for the elderly: only in a few instances were people younger than 50 years admitted. The bylaws of St. Jorishof Amsterdam prescribed that corrodians had to exceed 50 years of age – except for couples where at least one of the spouses should exceed 50, and the other should be above 45.¹⁷ They had to provide proof of their age by advancing a certificate of baptism – which was of course also crucial for establishing life expectancy, and hence the entry sum.¹⁸ In Leiden the age of 50 years was also used as the benchmark for admission. This becomes for instance clear when we look at the care provided to Janneken Frans Meese, a woman who lived in an orphanage until the age of 25, lived on welfare courtesy of the *huiszittenmeesters* until the age of 50, and then moved to St. Cecilia hospital. This woman, who might have been disabled and therefore unable to provide for herself, was taken care for by poor relief institutions since childhood. When she turned 50, it was time for the next and final step on her path in the care

¹⁵ We use the term *commensaal* to refer to people identified as *commensaal*, *ordinaris commensaal*, *ordinaris* or *conventuaal* in our sources. All terms appear to indicate the same type of corrody, namely one that entitled the corrodian to a bed in the nursing hall. Cf. *commensaal* EL, *archieven gasthuizen*, inv. nr. 58-1, f. 50; cf. *ordinaris* EL, *archieven gasthuizen*, inv. nr. 58-1, f. 50v. Cf. the combination *ordinaris commensaal* EL, *archieven gasthuizen*, inv. nr. 58-1, f. 64v; Cf. *conventuaal* EL, *archieven gasthuizen*, inv. nr. 58-1, f. 150; Cf. *provenier* EL, *archieven gasthuizen*, inv. nr. 58, f. 48v. That *commensaal* and *ordinaris* refer to a bed in the hall becomes evident when we see that this is the description used when people were sent to the hospital by poor relief institutions (cf. EL, *archieven gasthuizen*, inv. nr. 58-1, f. 65v and passim). Furthermore, see the remark that Jacquemijntje Jans Tijbout was admitted to the hall (*ziekenzaal*) as *ordinaris commensaal* (EL, *archieven gasthuizen*, inv. nr. 58-1, f. 86).

¹⁶ Many institutions had *proveniershuizen* built on their premises, or even outside. Cf. W.Th.M. Frijhoff, 'Food patterns of the middle classes: the Proveniershuis at Rotterdam, c. 1720-1840' in: ' "Proeve 't al, 't is prysselyck" : verbruik in Europese steden (13de-18de eeuw) = Consumption in European towns (13th-18th century) : liber amicorum Raymond van Uytven', *Bijdragen tot de geschiedenis, in het bijzonder van het hertogdom Brabant* 81 (1998) 191- 206, pp. 194.

¹⁷ SA, Sint Jorishof, Leprozen en Oude mannen- en vrouwengasthuis, inv. nr. 2 (instruction dated 1697).

¹⁸ SA, Sint Jorishof, Leprozen en Oude mannen- en vrouwengasthuis, inv. nr. 2 (instruction dated 1697).

of civic institutions: she moved to the nursing hall of St. Cecilia to live there as *commensaal*.

Interestingly, the directors of St. Cecilia agreed to do this without charge – which was quite rare: there are only a few other examples of admission *om niet*.¹⁹

Occasionally these institutions admitted people younger than 50 years of age. Some had mental problems, such as Martijn van Twedder, admitted in St. Cecilia in 1666, who was called mentally disabled (*innocent*) in the contract. We are informed of his condition by a few letters his wife Marja Vroombroeck wrote from her residence Rotterdam. She informs about his severe melancholia (*sware melancholije*) which apparently prevented him from going out in the street and enjoy the company of other people. She also tells about her request to the directors of St. Cecilia to allow Martijn to go to the hospital's church alone, or accompanied by others. She finishes by expressing the desire he will recover and return home.²⁰ Although serious enough, Martijn's problems did not justify a stay in the mental hospital (*dolhuis*); we might assume the other 18 corrodians with mental problems we encounter in the registers of St. Catharina and St. Cecilia also suffered from disorders that were not so severe to prohibit living in a nursery hall. Altogether we are informed of the age at entry of 1219 corrodians in the three institutions (table 1). A majority of 86,5% had surpassed the age of 50, only 13,5% entered before. As said, in St. Jorishof Amsterdam women were allowed entry from 45 on, provided their spouse was past 50 – indeed in the age category 40-49, 67 out of 92 corrodians were 45 or older. In this institution the average age at entry was 58,5, in St. Catherina Leiden this was 64,1, in St. Cecilia Leiden 59,3. Clearly, the corrodies these institutions sold were aimed at an ageing population.

Life in these institutions should not be idealized. *Proveniers* were best off: they had their own small house, or at least an apartment,²¹ which provided some privacy. *Commensalen* shared a nursing hall with dozens of others. Their personal living space consisted of a bed, sometimes called

¹⁹ EL, Archieven gasthuizen, inv. nr. 58-1, f. 77. Cf. EL, Archieven gasthuizen, inv. nr. 58-1 f. 31, 148v, 153.

²⁰ EL, Archieven gasthuizen, inv. nr. 58-1 f. 3v-4 (two letters found in the register).

²¹ EL, Archieven gasthuizen, inv. nr. 58-4, f. 11, 52, 166v.

comptoir,²² which suggests this may have included some closet space as well, and possibly even a door. Occasionally adjustments could be made: when the woman Catharina Hennen entered St. Catherine's, in 1792, she demanded an attic to be built in her *comptoir* – probably above her bed.²³ *Proveniers* and *commensalen* all had to obey to the directors (called *binnenvader* or *binnenmoeder*) and comply with the rules.²⁴

It is difficult to get a good impression of the basic provisions corrodians received. In 1697 St. Jorishof Amsterdam spent 165 guilders per *provenier* per annum – food and drink were served at a table. Corrodians demanding 'room service' paid an additional 60 guilders per annum, or in the event of couples, 50 guilders per person.²⁵ What was served may actually look a lot like the menu of the *proveniershuis* of Rotterdam – which served such things as rice pudding, porridge or salad for supper, and roast meat, beef or fish for dinner. Willem Frijhoff, in his article on consumption in this *proveniershuis*, suggests that its varied menu corresponds with the 'burgher consciousness' of its customers.²⁶ Indeed, one wonders whether less well-off corrodians, staying in the hall in St. Catharine's and St. Cecilia's in Leiden, received a similar menu. The fact that many paid to have their diet extended, with white bread, butter, cheese and beer, suggests that the basic diet offered to *commensalen* was not all that great. Perhaps such extras also served as breakfast, which was not included in the standard care package - of which we unfortunately do not know a great deal as of yet.²⁷ Furthermore, one gets the impression that people tried to avoid what was sometimes referred to as

²² EL, Archieven gasthuizen, inv. nr. 58-4, f. 150, 154, 168v.

²³ EL, Archieven gasthuizen, inv. nr. 58-4, 168v (...en dat voor haar bij haar inkomen zal worden gemaakt een zoldertje in haar comptoir...).

²⁴ SA, Sint Jorishof, Leprozen en Oude mannen- en vrouwengasthuis, inv. nr. 1 (bylaws dated 1520).

²⁵ SA, Sint Jorishof, Leprozen en Oude mannen- en vrouwengasthuis, inv. nr. 2 (instruction dated 1697). Corrodians keeping a servant paid 75 guilders per year for the servant's basic provisions.

²⁶ Although he also points out that the food was never really luxurious (W.Th.M. Frijhoff, 'Food patterns of the middle classes: the Proveniershuis at Rotterdam, c. 1720-1840' in: "'Proeve 't al, 't is pryselyck" : verbruik in Europese steden (13de-18de eeuw) = Consumption in European towns (13th-18th century) : liber amicorum Raymond van Uytven', *Bijdragen tot de geschiedenis, in het bijzonder van het hertogdom Brabant* 81 (1998) 191- 206, pp. 193, 195).

²⁷ RAL, Archief van de gasthuizen, inv. nr. 37-1 f. 42 (contract from 1687): 'will receive on top of the ordinary provisions of the house breakfast in the morning' (*zal boven tordinaris tractement vanden huijse genieten des ochtends een ontbijt*).

huysback – the hospitals’ home-baked bread that may not have been to everybody’s liking.²⁸ In a similar way, instead of the standard – and presumably rather tasteless – beer these hospitals provided, many corrodians paid extra for four-guilder-beer (*vierguldenbier*).

Although corrodians paid up front, many renegotiated their contracts over time. They may have felt the basic diet was too meagre, or received money allowing them to make their stay more bearable. Thus Isac de Smit was quick to decide he really wanted to begin his day with breakfast: months after signing his contract, he agreed to pay 150 guilders to have this for the remainder of his life. He could only enjoy this briefly though, since he passed away that very same year, 1723.²⁹ Others could afford to move from hall to a *proveniershuis*: Dingeman Groenedijk, *commensaal* in St. Catherine’s since 1748, paid 300 guilders to move to a *proveniershuis* in 1752. Here, he was also joined by his wife.³⁰ And these houses were not necessarily the end of on-site migration either: Maria Houbert moved from a ‘small house’ to a larger one that had previously been inhabited by two *proveniers*.³¹

Corrody prices

All contracts in the register of St. Catherine’s and St. Cecilia’s stipulate that the agreed-upon sum was to be paid to the hospital even if the buyer would pass away before this was concluded.³² The contracts resemble life annuity contracts: for the hospitals to make a profit – or break even – corrodians should pass away as soon as possible. Indeed, several customers passed away within a year, and only in a few instances did the directors offer any consolidation: when the man Pieter

²⁸ Thus Jillis van den Heuvel arranged for two white breads per week ‘ and the rest home-baked [bread]’ (*en de rest huysback*) (EL, Archief van de gasthuizen, inv. nr. 58-2 f. 155 (contract from 1743). Cf. EL, Archief van de gasthuizen, inv. nr. 58-1 f. 137 (*gebuuld brood* instead of ordinary bread).

²⁹ EL, Archief van de gasthuizen, inv. nr. 58-2, f. 4.

³⁰ EL, Archief van de gasthuizen, inv. nr. 58-4, f. 4v.

³¹ EL, Archief van de gasthuizen, inv. nr. 58-2, f. 133 (contract from 1740). Cf. *idem*, f. 147v (contract from 1742).

³² EL, Archief van de gasthuizen, inv. nr. 58-4 f. 3 (*...al kwam hij binne die tijd te sterven*) and *passim*.

Pringe died only months after paying 800 guilders for a place in St. Catherine's, the directors struck a deal with the *weesmeesters* of Leiden. The latter, probably representing underage descendants of Pieter, managed to get 650 guilders back; the remaining 150 guilders and all the moveables Pieter had brought were kept by the hospital.³³ Such leniency was unusual though: when the man Jan Levren passed away in St. Catherine's before paying the final installments, a surviving relative agreed to pay 200 guilders that were still outstanding.³⁴ Payments were made in cash, or in installments: only in a few instances did directors accept financial instruments, such as bonds issued by the States of Holland, in lieu of cash.³⁵ Payment in kind, such as real estate and labour services, which were frequently used to pay for corrodies in the 15th and 16th century, did not occur in the 17th and 18th centuries.³⁶

Everyone entering St. Catherine and St. Cecilia was supposed to bring *bed en bulster*: a mattress and bed linen (and perhaps some other household effects as well).³⁷ These were to be kept by the hospital after the inmate had passed away – unless provisions were made to the contrary. Patients bequeathing to hospitals was common practise since the late Middle Ages: a contract agreed with Hendrik Hendriks, *persona miserabilis*, from 1669 still refers to the bylaw count Albrecht (r. 1389-1404) had issued in 1401, which allowed the hospital to receive inheritances.³⁸ The obligation to bring *bed en bulster* was not an empty gesture: in 1697, two years after entering St. Catherine's, the woman Martina Verwey received permission to travel to the town of Wesel 'to get money for her bed linen'. She probably had relatives in Wesel, who had bequeathed her, or were willing to otherwise give money to be used for bed linen. Anyway, Martina's obligation to provide *bed and bulster* justified this trip to a town located c. 180 km from Leiden.³⁹ Corrodians were furthermore supposed to provide their own clothing. Thus for clothing Leendert Symons (a mentally

³³ EL, Archief van de gasthuizen, inv. nr. 58-1, f. 44-44v.

³⁴ EL, Archief van de gasthuizen, inv. nr. 58-2, 87v.

³⁵ EL, Archief van de gasthuizen, inv. nr. 58-1, f. 115v; EL, Archief van de gasthuizen, inv. nr. 58-4 f. 4, 95.

³⁶ Cf. Zijjderduijn, 'St. Hiëronymusdal'.

³⁷ The term *bed en bulster* can refer to mattress and bed linen, but also more generally to household effects.

³⁸ See Ligtenberg, *De armezorg*, 311-312.

³⁹ EL, Archief van de gasthuizen, inv. nr. 58-1, f. 71v.

incapacitated man) would turn to his relatives and ‘friends’ that had admitted him to St. Catherine’s – a stipulation that appears in every contract in the registers.⁴⁰

Corrodians in St. Catherine and St. Cecilia received a roof over their heads, food and drinks (and in the eighteenth century some also received candles and fuel); for a matras, bed linen and clothing they had to take care themselves. This applied equally to *proveniers* and *commensalen*. What did corrodians pay for this care package? Prices for life-long care reflect a number of things: opportunity costs (what were the alternatives for buyers and sellers of corrodies?), anticipated duration of the contract (based on the age of the corrodian and possibly also gender and medical condition) and the composition of the care package, which was often subject of negotiation. Before we discuss these, let us take a look at the long-term development of prices. Figures 1a provide average prices paid in Amsterdam’s St. Jorishof per decade (see also appendix 1a). The three categories (*proveniers* contracts for males, females, and couples) follow the same trend: when expressed in nominal terms, average entry sums more than doubled between 1600 and 1799. Couples paid about twice the amount singles paid, and on average males paid more than females. The latter may sound surprising considering the superior longevity of today’s women; however, early modern women did not outlive men on average, so there was no need to make women pay higher entry sums.⁴¹ The development of *commensalen* contracts in Leiden shows a similar trend: a gradual rise in prices (figures 1b-c and appendices 1b-e). This is especially clear when we ignore the scarce data for the 17th century (where the effect of age at is not cancelled out by a larger number of observations) and focus on the 18th century. At the end of this century *commensalen* paid c. 50% more than at the beginning. The prices for couples suffer from a low number of observations throughout our time period (resp. 38 and 13) and therefore do not provide a reliable trend.

⁴⁰ EL, Archief van de gasthuizen, inv. nr. 58-1, f. 1 (...so van linnen als wolle tsijnder lijve behorende wel onderleyt ende voorsien bij de voorn. vrunden...).

⁴¹ See the discussion in Zuijderduijn, ‘Living la vita apostolica’.

Nominal prices of corrody contracts increased by 100% (Amsterdam 1600-1799) and 50% (Leiden c. 1700-1799). The increase of the general price level and the cost of living during the early modern period is a well-documented fact: basic foodstuffs became more expensive, while wages stayed behind. Consumer prices doubled between 1600-1799, and in this respect corrody prices seem to have followed suit.⁴² To find out more about access to corrodies, figures 2a-c give entry sums expressed in day wages of a master craftsman.⁴³ The figure thus tells us how much day wages people had to save (or raise in another way) before they could retire. It does so for people from middling groups – master craftsmen – who are the most likely candidates for having purchased corrodies. This exercise does little to alter our initial impressions of a strong long-term rise of the costs of retirement: to enter St. Jorishof Amsterdam individuals could suffice with less than 1000 day wages at the beginning of the seventeenth century, but had to raise at least 2000 day wages at the end of the eighteenth century. Early-seventeenth-century couples capable of saving less than 2000 day wages could spend their old age in St. Jorishof, but their late-eighteenth-century counterparts had to raise the equivalent of almost 4000 day wages. By then retirement in St. Joris had apparently become something for a different social group. The less luxurious *commensalen* contracts in Leiden show a similar pattern, starting out at c. 300 day wages (St. Catherines) and c. 400 (St. Cecilia's) around 1700, and reaching resp. c. 550 and 600 day wages around 1800; access to this type of retirement was also subject to change.

Of course this is not the whole story behind corrody prices. We might assume that the age at entry was a major factor in price making.⁴⁴ Did this variable change over time, for instance because people chose to 'retire' at an earlier age? Figure 3 gives the average age at entry per decade (see also appendix 2) for St. Jorishof Amsterdam. For 1600-1799 the average age at entry for single men was

⁴² See the consumer price index available at the IISH website (<http://www.iisg.nl/hpw/brenv.php>).

⁴³ We use the average nominal wages for a master craftsman in the Western Netherlands given by Jan de Vries and Ad van der Woude (J. de Vries and A. van der Woude, *The first modern economy. Success, failure, and perseverance of the Dutch economy, 1500-1815* (Cambridge 1997) 610-611.

⁴⁴ This was quite usual in the eighteenth century: see the list of the *leprozenhuis* stipulating entry sums based on the age of corrodians (SA, Sint Jorishof, Leprozen en Oude mannen- en vrouwengasthuis, inv. nr. 331).

57,6, for single women 59,8, and for couples 57,7. The long-term development shows a slight increase: in the seventeenth century the average age at entry for all categories were 56,1, in the eighteenth century this was 60,6. The age at entry was particularly low during the first half of the seventeenth century, at 54,3. Age at purchase thus increased over time; this should have caused prices to decrease – unless life expectancy increased markedly between 1600-1799. If this were the case, corrodians in the early seventeenth century could suffice with a relatively low entry sum, whereas their longer-living eighteenth-century companions had to compensate their relative longevity by paying more. According to the historian Shulamit Shahar, longevity did not change much until the nineteenth century,⁴⁵ and indeed, when we take a look at the years corrodians stayed in St. Jorishof, there is little reason to believe corrodians spent a longer time. Figure 4a presents the average stay of *proveniers* in St. Jorishof Amsterdam. It shows a great deal of volatility in the seventeenth century (caused by a relatively low number of observations) but on average not a shorter stay than in the eighteenth century. The opposite was rather true: the seventeenth-century average (all categories) was a stay of 15,7 years, considerably higher than the eighteenth-century average of 11,4. Even when we exclude the final decades of the eighteenth century – which are biased because corrodians living past 1799 were not recorded – figures do not exceed thirteen years.⁴⁶ For the sake of completeness, figures 4b-c present data on the average stay at St. Catherine and St. Cecilia Leiden; the low number of observations before the second half of the eighteenth century prevent us from drawing clear conclusions though.

Discussion

Economic and political history

⁴⁵ S. Shahar, 'Who were old in the middle ages?' *Social history of medicine* 6 (1993) 313-341, pp. 329.

⁴⁶ For instance, the average stay for 1700-1779 is 12,6, for 1700-1769 is 12,8.

Our data suggest the supply of old-age provisions took off in the late Middle Ages. Institutions raised the number of corrodians and also began to specialize in this type of care. Why did this happen then, and did it also happen elsewhere in Europe? In this respect a number of variables might have played an important role.

Apparently the number of elderly capable of purchasing a corrody increased. This might have been a consequence of improving real income in the late Middle Ages and the ability for middling groups to save.⁴⁷ It might also have been enabled by an increasing ability for parents to decide for themselves what they would do with their property – in spite of expectations of children and next of kin. In Leiden and Amsterdam, many corrodians in the sixteenth century sold land to be able to purchase a corrody.⁴⁸ According to Martha Howell, possibilities to alienate property increased in the sixteenth century in Northwest Europe and England.⁴⁹ This raises the question whether this was impossible before, in the late Middle Ages, and also whether barriers to alienation continued to prevent the emergence of a sufficiently large demand for commercial old-age provisions elsewhere in Europe.

Religious turmoil and warfare appear to have played an important role in the emergence of commercial old age provisions. The early reformatory movement, and the decline of monasticism, caused the depopulation of convents up to the point where they were taken over by town governments – Leiden's St. Hiëronymusdal is a case in point. After the 'wonder year' 1566, this development gained further momentum, and after the outbreak of the Dutch revolt confiscations of catholic property gave yet another impulse to the availability of large buildings with the capacity to cater to dozens of individuals. Again, this development is predominantly restricted to the Northern Low Countries and parts of the German Empire.

⁴⁷ De Moor and Van Zanden, 'Girl power'; Zijlderduijn, 'Who hoarded in Holland?'

⁴⁸ Zijlderduijn, 'St. Hiëronymusdal'.

⁴⁹ M.C. Howell, *Commerce before capitalism*.

Political and cultural developments with respect to poor relief must also be considered here: in the sixteenth century attitudes to poor relief hardened, with help becoming more exclusive. This might have had a twofold effect: limiting the number of inmates to 'deserving poor' created space in existing hospitals. Furthermore, new attitudes to the poor might also have spilled over to create a new view on the elderly poor. In theory old age continued to be a reason to receive help (elderly were included among the 'deserving' poor). On the other hand, the distinction between 'deserving' poor and vagrants might have caused a shift in the self-reflection of the elderly: did they really want to blend in with the 'deserving poor'? Investments in *commensalen* contracts in Leiden suggests many elderly preferred to pay for necessities of life and infirmity, rather than turn to poor relief.

Social history

The findings presented in this paper also have implications for social history. In the eighteenth century fewer people would have been able to retire as *proveniers* or *commensalen* than in the seventeenth. Research into retirement in Amsterdam and Leiden, c. 1450-1550, shows that back then corrodies were even cheaper, both in real terms and expressed in day wages. *Commensalen* paid the equivalent of less than 300 day wages of a master craftsman – roughly a year's income.⁵⁰ This long-term development of the cost of retirement had a tremendous impact on social relations: initially parents were relatively independent from their children for old-age provisions, but this advantageous situation disappeared over time. This development coincides with the rise of the Western European marriage pattern in the Low Countries in the late Middle Ages, when ties between kin became less severe, and the nuclear family became more prominent. Tine de Moor and Jan Luiten van Zanden have suggested that this development was only possible due to increased possibilities for individuals to participate in labour markets to earn money, and invest savings in

⁵⁰ Zijderduijn, 'St. Hiëronymusdal'.

capital markets, so they could prepare for old age.⁵¹ The latter was made easier by relatively low cost of retirement in the late Middle Ages: parents from middling groups and elites could make their own provisions for old age. While this may have allowed for a loosening of family ties, pensions becoming more expensive over time may have created problems for early-modern elderly.⁵²

Commercial old-age provisions such as *corrodies* played a decisive role in social relations. The possibility (or impossibility) to spend old age independently from family members has a strong effect on household structures. Where reliable old-age provisions are not available outside the family, individuals will try to ensure family members will be available during old age. One way to do so is to make inheritance conditional on support during old age.⁵³ Other ways include not supporting children financially in setting up their own households and in helping them to migrate, or not paying for an education that would allow them to become independent of the household. And of course parents could also exercise a variety of more informal ways to make sure children would not stray too far, by teaching them to become care takers, and formulating expectations.⁵⁴ On the contrary, when reliable old-age provisions are available, parents might not feel the need to tie their children to the parental household. The result is a different attitude with respect to such issues as human capital formation in children and life-cycle saving.

Like so many things in early-modern society, retirement entailed questions with respect to social status. The elderly risked social descent due to their increasing incapacity to work; old-age provisions were not only aimed at survival, but also at maintaining their social position. Among elites

⁵¹ De Moor and Van Zanden, 'Girl power', esp. 23 and 28.

⁵² Perhaps these problems were in part countered by restoring some of the power of the *pater familias*. De Moor and van Zanden cautiously suggest the return of the patriarchy 'to a certain degree' in the Low Countries and England. They also indicate that this development was stronger in other parts of western Europe (T. de Moor and J.L. van Zanden, *Vrouwen en de geboorte van het kapitalisme in West-Europa* (Amsterdam 2006) 99. See also the reaction by Manon van der Heijden, Elise van Nederveen Meerkerk and Ariadne Schmidt (M. van der Heijden, E. van Nederveen Meerkerk and A. Schmidt, 'Terugkeer van het patriërchaat? Vrije vrouwen in de Republiek', *Tijdschrift voor Sociale en Economische Geschiedenis* 9 (2012) 61-72).

⁵³ T. Lambrecht, 'English individualism and continental altruism? Servants, remittances, and family welfare in eighteenth-century rural Europe' *European Review of Economic History* 17 (2013) 190-207, pp. 202.

⁵⁴ D.S. Reher, 'Family ties in Western Europe: persistent contrasts', *Population and development review* 24 (1998) 203-235, pp. 215.

the elderly could probably afford to continue living at home, by hiring personnel. For middling groups this was probably too expensive: for them the *proveniershuis*, with its privacy and varied diet, provided a respectable alternative. For elderly from lowering middling groups there was the possibility to become *commensalen*: this care-package provided little privacy and a sparse diet, but it allowed buyers to abstain from charity. The latter was a means of last resort for those unable to provide for themselves during old age. With respect to retirement facilities for social groups there remains a lot of work to be done; the fact that thousands paid substantial sums to become mere *commensalen* suggests contemporaries were very much aware of the social implications of spending old age either in a commercial hospital, or in a charitable institutions such as a poor house or old folks home. Further research should focus on the differences between *proveniers*, *commensalen* and the elderly recipients of poor relief. What did each category receive in necessities of life and infirmity, and how certain could they be of its supply? Which social and cultural ramifications did several care packages have? Was it for instance considered more honourable to be a *commensaal* than an old man or woman on charity, and if so, how did individuals make sure other people knew they were a *commensaal*? The latter question might have been especially pressing considering that hospitals could be home to both *proveniers*, *commensalen* and people on charity. Furthermore: how does the *commensaal* feature in contemporary popular culture?

Financial history

The paper also has implications for financial history. The *corrodies* we encounter in Amsterdam and Leiden must be regarded as an alternative for the life annuity, which was widely available at the time. The main difference was *corrodies* providing care, and life annuities providing a monetary revenue. Since the thirteenth century – and probably earlier as well – individuals used the latter to

make arrangements for old age.⁵⁵ An annuity-buyer (the creditor) paid a principal to a seller (the debtor), and received a life-long pension in return. Payments could be made in money or sometimes in kind, usually wheat or rye. These pension contracts are known as *corrodies*, *rentes viageres*, *Leibzucht/lijftocht* and *lijfrente*.⁵⁶ They forced the pensioner to access the market: cash payments still had to be turned into food, fuel, housing and care. The possibility of inflation and/or monetary debasements – ‘market risk’ – was therefore a real threat to elderly dependent on cash pensions. Annual payments in wheat or rye were less risky, although these again forced the recipient to trade wheat/rye for other necessities. Furthermore, regardless whether payments were in cash or kind, moral hazard and credit crunches posed a serious threat to pensioners who depended on payments from one debtor. This was even true in the event this one debtor was the state or town government: annuity payments were frequently suspended, or reduced.⁵⁷

In this respect it is understandable that people began to pool pensions. Since the fourteenth century – but again, probably earlier as well – religious and charitable institutions allowed individuals to enter convents without becoming clerics – they are usually described as *proveniers/commensalen*. These constructions offered a few advantages compared to life annuities. Pensioners received a complete ‘care package’ which usually also included medical attention. Furthermore compared to spending old age individually, convents and hospitals provided a relatively safe environment, due to the presence of personnel such as doormen, and also due to the presence of other inhabitants. Institutions also had the means to spread risks. Convents and hospitals were often active in agricultural production themselves, or entitled to tax-payments in kind, which gave them direct access to foodstuffs. Furthermore, convents and hospitals had proper storage facilities that allowed

⁵⁵ See James Tracy’s survey on the origins of some financial instruments: J.D. Tracy, ‘On the dual origins of long-term urban debt in medieval Europe’, in M. Boone, K. Davids and P. Janssens (eds.), *Urban public debts. Urban governments and the market for annuities in Western Europe (14th-18th centuries)* (Turnhout 2003) 13-24.

⁵⁶ Of course, any kind of fixed income could be used as a pension for old age, including regular investments in capital markets (mortgage interest) and lease markets (leases). However, due to the presence of the longevity element in *corrodies* etc. these usually allowed for much higher returns to investments, which made these instruments particularly useful for creating relatively inexpensive old-age provisions.

⁵⁷ See many references in: Zijderdijn, *Medieval capital markets*, 124-136 ; H.L. Houtzager, *Hollands lijf- en losrenteleningen vóór 1672* (Schiedam 1950) 57-64, 72-96.

them to prepare for scarcity. In the event they purchased supplies in the market, they are likely to have been able to negotiate more favourable deals than individuals. Also, institutions had a diversified income, usually including leases, various capital market investments, tithes and gifts. Compared to individuals, they were less likely to suffer greatly from market risk, moral hazard and credit crunches.⁵⁸ Perhaps most importantly, in providing payments in kind (food, fuel, medical attention), small institutions – and not their pensioners – bore the risk of inflation, which was beneficial for the latter.⁵⁹ Corrodies thus offered an alternative to life annuities – and even remained attractive when corrody prices increased relative to prices of life annuities. In the nineteenth century this came to halt though: *proveniers* and *commensalen* gradually disappeared. H. Schmitz, writing about the small *proveniershuis* of Schiedam suggests this institution was unable to make ends meet, particularly after the suspension of government bonds at the end of the eighteenth century.⁶⁰ However, there are also some other possibilities: in spite of the advantages of corrodies, it is obvious that prices of corrodies relative to other financial instruments could not continue to rise. At some point other financial instruments or old-age provisions may have become better suited for elderly. In this respect the rise insurance by craft guilds and widows funds since the eighteenth century may have played a role, and the same goes for of ‘mutual funds’ (*onderlinges*).⁶¹

By selling a corrody, a hospital created an obligation: to provide the corrodian with the necessities of life and infirmity. To be able to do this, and to live up to this obligation, its directors had to invest the principal in a profitable manner: ideally the returns would pay for the corrody. Unless hospitals were governed in a capitalist way – aimed at productive use of capital assets, and a minimization of expenses – they would not survive. Perhaps more than any other pre-industrial

⁵⁸ This point is also made by Ligtenberg, claiming that Leiden’s *Heilige Geest* provided individuals ‘insurance against hunger’ (Ligtenberg, *De armezorg*, 178).

⁵⁹ Bell and Sutcliffe call pensions paid in kind ‘effectively inflation proof’ (A. Bell and C. Sutcliffe, ‘Valuing medieval annuities: were corrodies underpriced?’, *Explorations in economic history* 47 (2010) 142-157, pp. 143).

⁶⁰ Cf. Schmitz, *Het proveniershuis*, 52.

⁶¹ See M.H.D. van Leeuwen, ‘Guilds and middle class welfare, 1550-1800: provisions for burial, sickness, old age, and widowhood’, *The economic history review* 65 (2012) 61-90;

institution, the hospital had to make a profit in order to meet its legal obligations. Future research should therefore include an analysis of hospital's asset management: how did directors safeguard their hospital's financial future, did they 'play' the market or behave more conservatively, and to what degree did they use early actuary science that emerged in the seventeenth and eighteenth centuries to calculate corrodian's life expectancies? Were there any developments in finance and administration allowing for scale-enlargement in commercial old-age provisions in the sixteenth century? And were there any problems with the hospitals' business model that can help explain why this type of old-age provision did not survive in the nineteenth century?

Table 1. Age at entry corrodians St. Jorishof Amsterdam, St. Catharina and St. Cecilia Leiden

| | St. Jorishof | St. Catharina | St. Cecilia | All |
|---------------|---------------------|----------------------|--------------------|-------------|
| <30 | 2 | 1 | 3 | 6 (0,5%) |
| 30-39 | 11 | 10 | 11 | 32 (2,6%) |
| 40-49 | 92 | 23 | 12 | 127 (10,4%) |
| 50-59 | 268 | 73 | 41 | 382 (31,3%) |
| 60-69 | 296 | 115 | 33 | 444 (36,4%) |
| 70-79 | 72 | 91 | 19 | 182 (14,9%) |
| >80 | 11 | 24 | 11 | 46 (3,8%) |
| total | 752 | 337 | 130 | 1219 |

Figure 1a. Average prices St. Jorishof Amsterdam per decade (guilders)

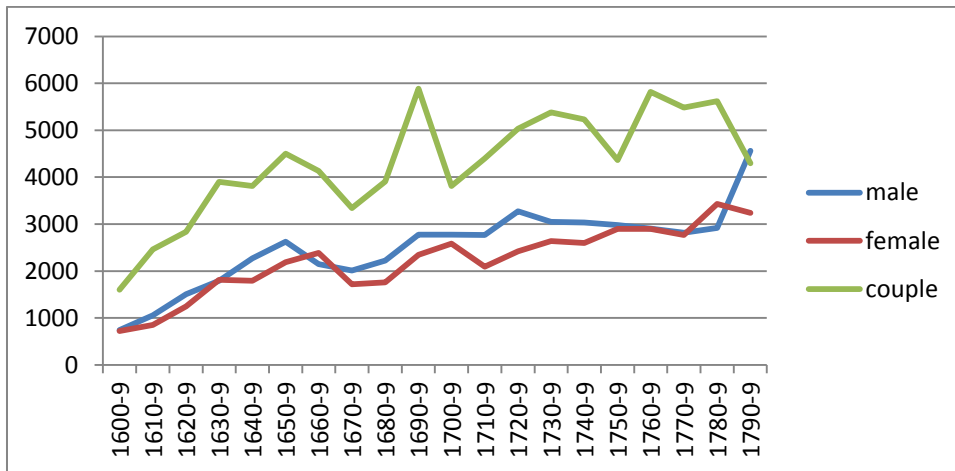


Figure 1b. Average prices *commensalen* St. Catherine's Leiden per decade (guilders)

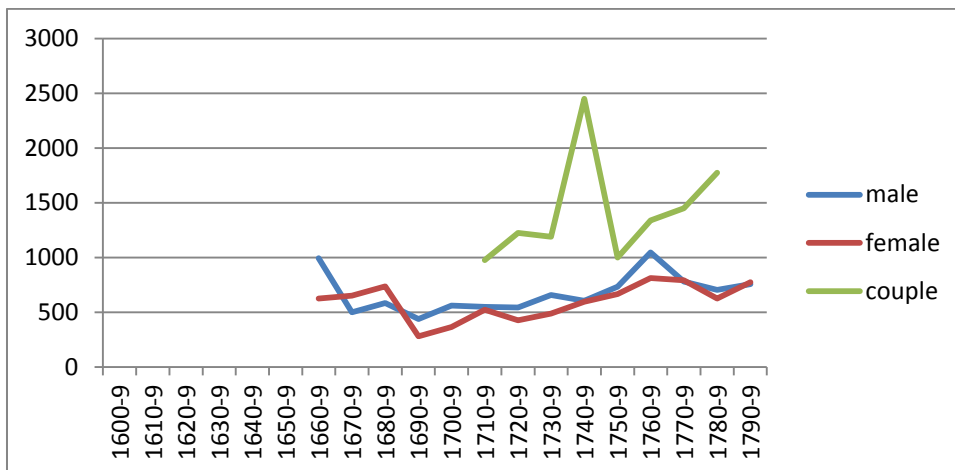


Figure 1c. Average prices *commensalen* St. Cecilia's Leiden per decade (guilders)

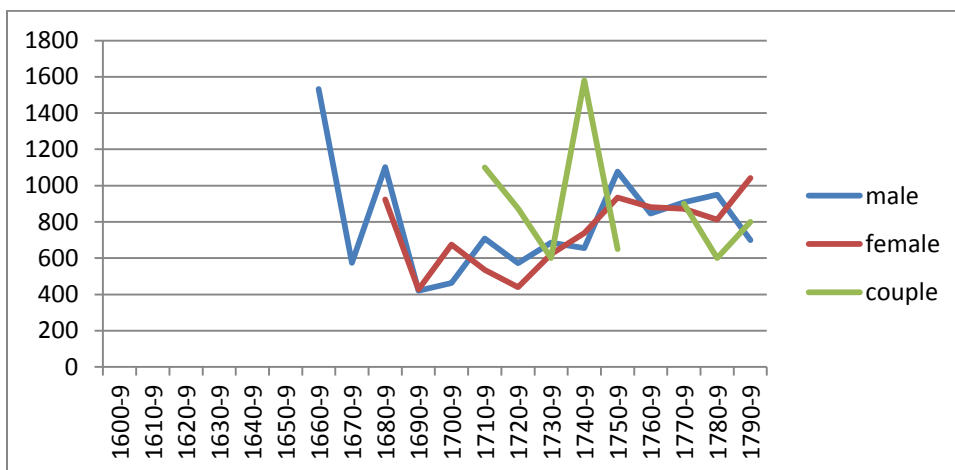


Figure 2a. Entry sums St. Jorishof Amsterdam expressed in day wages of a master

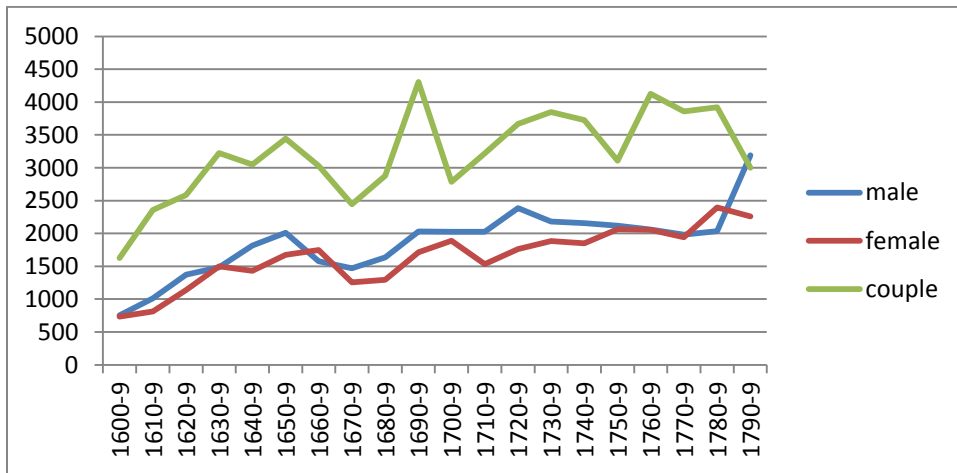


Figure 2b. Entry sums St. Catherine's Leiden expressed in day wages of a master

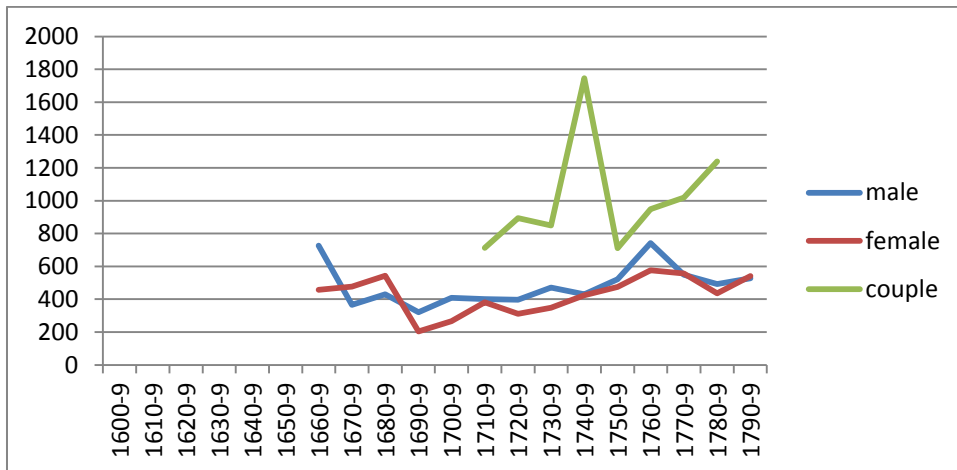


Figure 2c. Entry sums St. Catherine's Leiden expressed in day wages of a master

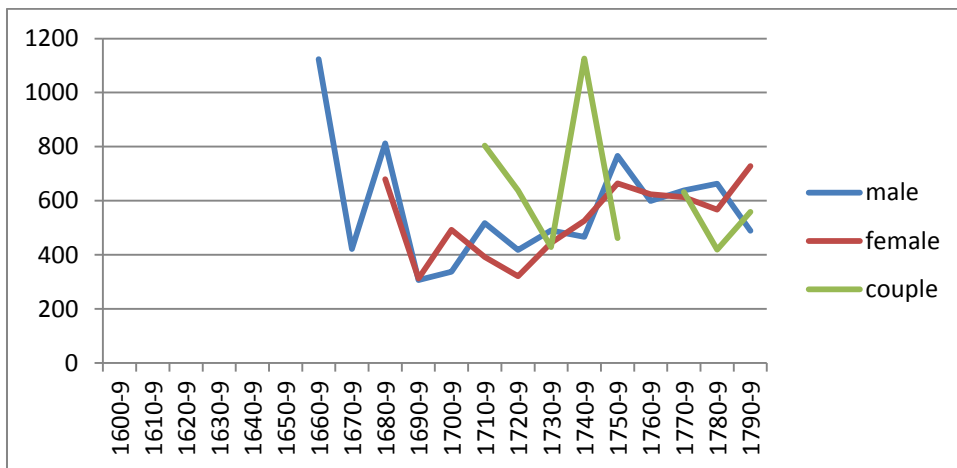


Figure 3a. Average age at entry *proveniers* St. Jorishof Amsterdam per decade

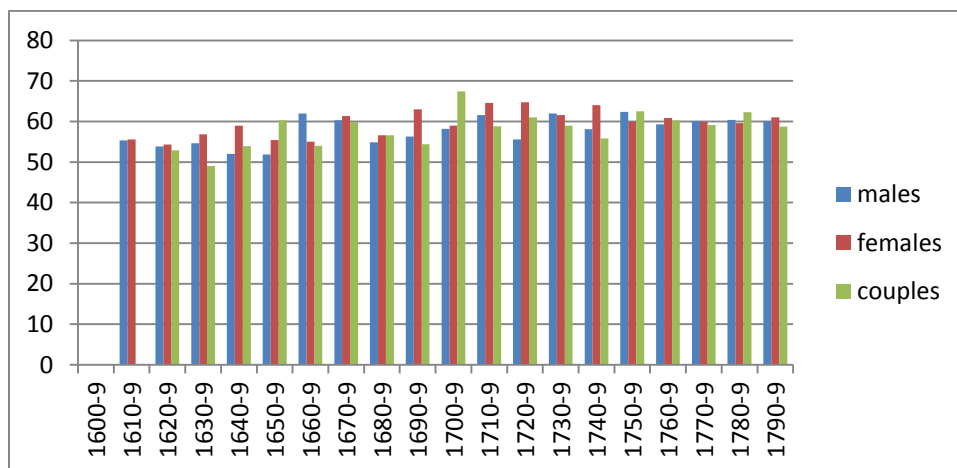


Figure 3b. Average age at entry *commensalen* St. Catherina Leiden per decade (N=269)

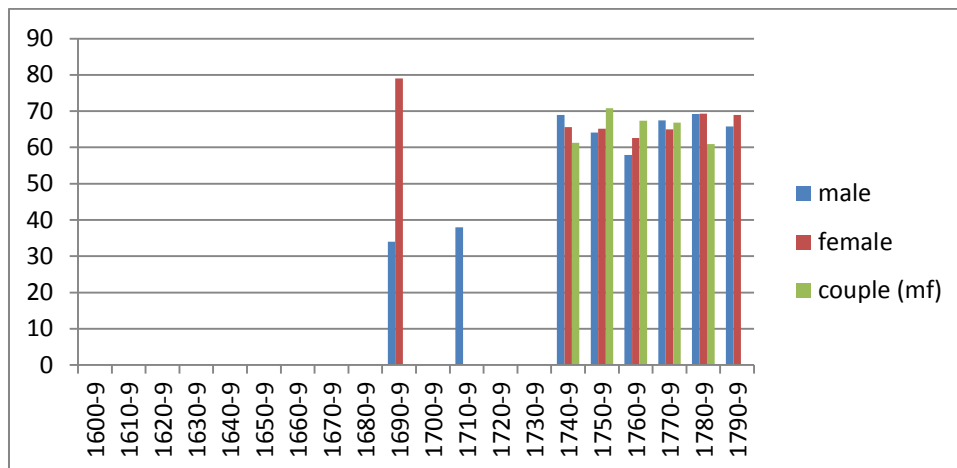


Figure 3c. Average age at entry *commensalen* St. Cecilia Leiden per decade (N=100)

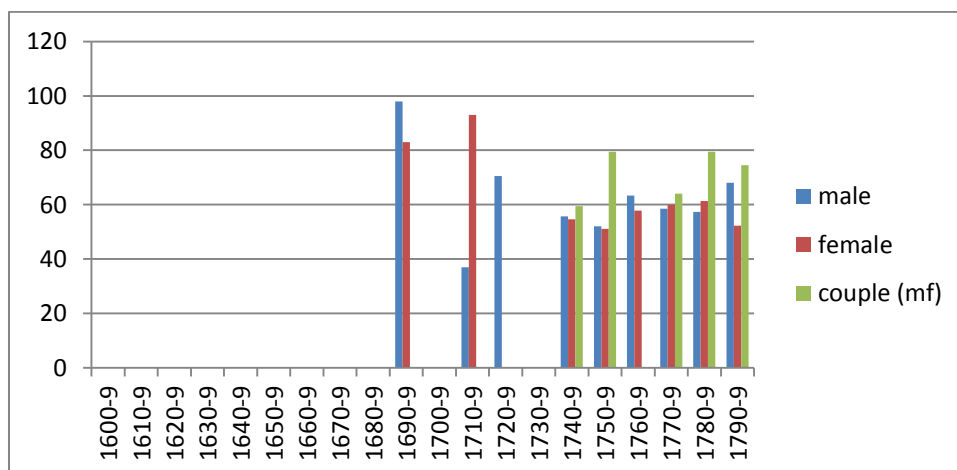


Figure 4a. Average stay St. Jorishof Amsterdam

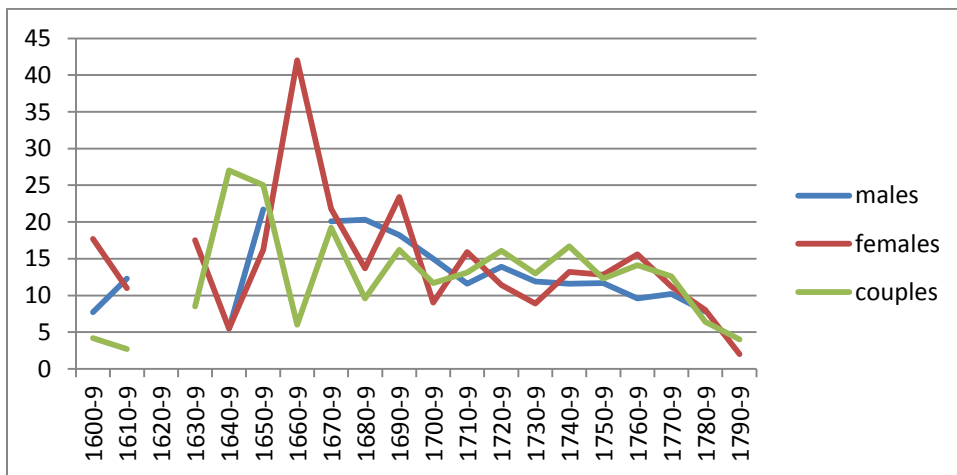


Figure 4b. Average stay St. Catherina Leiden

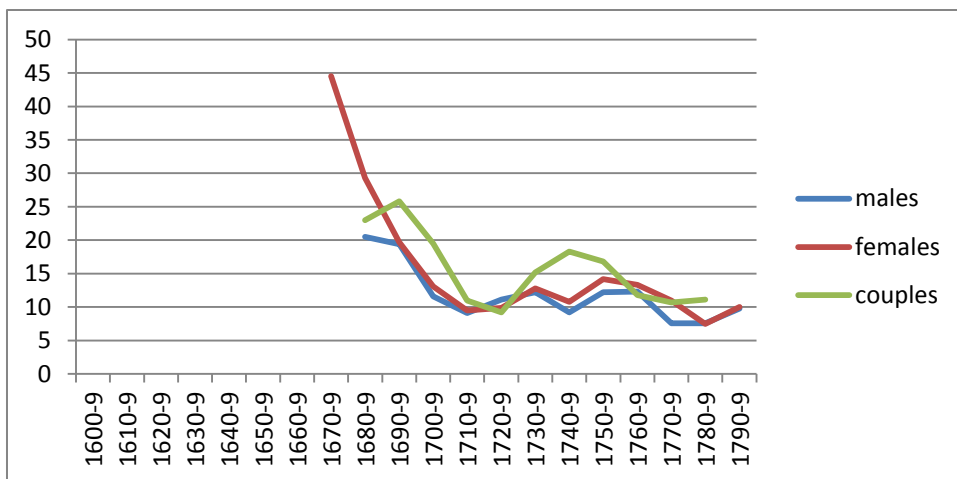
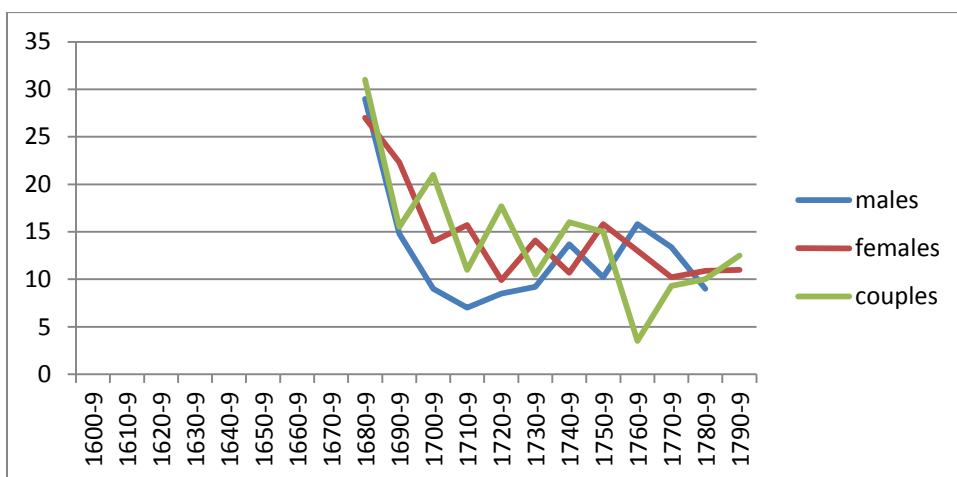


Figure 4c. Average stay St. Catherina Leiden



Appendix 1a-1e. Average purchase prices

a. In St. Jorishof Amsterdam *proveniers* per decade (N)

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------|--------------|--------------|-------------|--------------|-------------|-------------|-------------|
| 1600-9 | 740,9 (11) | 723,4 (18) | 775 (2) | 1600 (9) | - | 1533 (3) | 2350 (1) |
| 1610-9 | 1057,7 (13) | 847,4 (29) | - | 2462,5 (8) | - | - | - |
| 1620-9 | 1505,6 (18) | 1248,3 (18) | - | 2838,9 (9) | - | 2800 (1) | - |
| 1630-9 | 1792,9 (7) | 1811,1 (9) | - | 3900 (11) | - | - | - |
| 1640-9 | 2272,2 (9) | 1790,9 (11) | - | 3813,3 (15) | - | 3500 (1) | - |
| 1650-9 | 2625 (10) | 2188 (15) | 4500 (1) | 4500 (7) | - | 2800 (1) | - |
| 1660-9 | 2150 (2) | 2385,7 (7) | - | 4133,3 (3) | - | - | - |
| 1670-9 | 2008,8 (16) | 1714,1 (16) | 1700 (1) | 3340 (10) | - | - | - |
| 1680-9 | 2223,4 (16) | 1756,7 (15) | 2400 (1) | 3905 (10) | - | - | - |
| 1690-9 | 2775 (6) | 2341,7 (6) | - | 5887,5 (8) | - | - | - |
| 1700-9 | 2775 (6) | 2585 (5) | 2200 (1) | 3812,5 (8) | - | - | - |
| 1710-9 | 2770,5 (11) | 2093,6 (18) | - | 4400 (7) | - | 3400 (1) | - |
| 1720-9 | 3275 (8) | 2418,4 (19) | 2650 (2) | 5031,5 (4) | - | 4500 (1) | - |
| 1730-9 | 3050 (8) | 2639,3 (14) | 2300 (1) | 5383,3 (6) | - | 3900 (1) | - |
| 1740-9 | 3031,3 (8) | 2598,3 (12) | 3025 (2) | 5233,3 (3) | - | 5450 (2) | - |
| 1750-9 | 2978,6 (7) | 2900 (27) | | 4366,7 (6) | - | 4600 (1) | - |
| 1760-9 | 2902 (15) | 2900 (12) | 5500 (1) | 5816,7 (6) | - | - | 4700 (1) |
| 1770-9 | 2818,2 (11) | 2765,6 (16) | 2550 (1) | 5483,3 (9) | - | - | 4750 (1) |
| 1780-9 | 2916,7 (9) | 3432,1 (14) | 400 (1) | 5617,8 (9) | - | - | 2950 (1) |
| 1790-9 | 4562,5 (6) | 3235 (10) | 2918,8 (8) | 4293,8 (4) | - | - | 5450 (2) |
| total | 2375,1 (197) | 2116,3 (291) | 2643,5 (23) | 4150,1 (152) | - | 3416,6 (12) | 4275 (6) |

N=681

b. In St. Catherine's Leiden *proveniers*

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------|-----------|-----------|---------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | | 1100 (1) | | | | | |
| 1670-9 | 2000 (1) | | | | | | |
| 1680-9 | | 1000 (1) | | | | | |
| 1690-9 | | 900 (1) | | 1550 (1) | | 1000 (1) | |
| 1700-9 | 1800 (1) | | | | | | |
| 1710-9 | 1800 (1) | | | | | | |
| 1720-9 | | | | | | | |
| 1730-9 | | 875 (2) | | 2067 (3) | | 2600 (1) | |
| 1740-9 | 2800 (2) | 1383 (3) | | 3200 (3) | | | |
| 1750-9 | | 1200 (4) | | 1600 (1) | | | |
| 1760-9 | 1117 (3) | 1200 (1) | | 2600 (4) | | | |
| 1770-9 | | | | 2133 (3) | | | |
| 1780-9 | 2010 (5) | 1650 (3) | | 2825 (6) | | | |
| 1790-9 | 1525 (1) | 1600 (1) | | | | | |
| total | 1866 (14) | 1262 (17) | | 2558 (20) | | 1800 (2) | |

c. In St. Catherine's Leiden *commensalen*

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------|-----------|-----------|----------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | 992 (3) | 625 (2) | | | | | |
| 1670-9 | 500 (4) | 650 (3) | | | | | |
| 1680-9 | 583 (5) | 737 (3) | 822 (2) | | | | |
| 1690-9 | 439 (44) | 280 (26) | 275 (2) | 775 (2) | | | |
| 1700-9 | 561 (23) | 365 (18) | 533 (3) | | | | |
| 1710-9 | 548 (27) | 522 (19) | 500 (1) | 975 (3) | | | |
| 1720-9 | 544 (40) | 426 (45) | 425 (2) | 1225 (5) | | | |
| 1730-9 | 658 (35) | 486 (50) | 1000 (1) | 1188 (10) | 1200 (1) | | |
| 1740-9 | 603 (29) | 595 (38) | 300 (1) | 2450 (2) | | 400 (1) | |
| 1750-9 | 733 (21) | 667 (19) | | 1000 (2) | | | |
| 1760-9 | 1046 (21) | 813 (17) | 375 (1) | 1338 (4) | | | |
| 1770-9 | 780 (19) | 791 (26) | 875 (1) | 1450 (5) | | | |
| 1780-9 | 705 (29) | 624 (18) | | 1775 (5) | 2100 (1) | | |
| 1790-9 | 755 (5) | 775 (2) | | | | | |
| total | 635 (305) | 542 (288) | 550 (14) | 1338 (38) | 1650 (2) | 400 (1) | |

d. In St. Cecilia's Leiden *proveniers*

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------|-----------|-----------|---------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | | | | | | | |
| 1670-9 | | | | | | | |
| 1680-9 | | | | 1000 (1) | | | |
| 1690-9 | 1100 (1) | 800 (1) | | 1300 (1) | | | |
| 1700-9 | 1700 (1) | | | | | | |
| 1710-9 | 1150 (1) | | | | | | |
| 1720-9 | 1000 (3) | 1463 (2) | | | | | |
| 1730-9 | 1508 (3) | 1400 (2) | | | | 1900 (1) | |
| 1740-9 | 1038 (2) | | | 2400 (1) | | | |
| 1750-9 | 600 (1) | 1400 (1) | | 1875 (2) | | | |
| 1760-9 | 1350 (2) | 1400 (2) | | 600 (1) | | | |
| 1770-9 | 1400 (1) | 1325 (2) | | 2412,5 (2) | | | |
| 1780-9 | | | | | | | |
| 1790-9 | | 1175 (4) | | | | | |
| total | 1217 (15) | 1291 (14) | | 1734 (8) | | 1900 (1) | |

e. In St. Cecilia Leiden *commensalen*

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|---------------|-----------|-----------|----------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | 1533 (3) | | | | | | |
| 1670-9 | 575 (2) | | | | | | |
| 1680-9 | 1102 (3) | 923 (5) | | | | | |
| 1690-9 | 420 (22) | 427 (15) | 633 (3) | | | | |
| 1700-9 | 463 (13) | 675 (6) | | | | | |
| 1710-9 | 708 (10) | 536 (9) | 400 (1) | 1100 (1) | | | |
| 1720-9 | 573 (28) | 440 (17) | 1000 (1) | 875 (2) | | | |
| 1730-9 | 686 (20) | 622 (16) | 1550 (1) | 600 (1) | | | |
| 1740-9 | 655 (15) | 738 (21) | 300 (1) | 1581 (4) | | | |
| 1750-9 | 1077 (17) | 934 (8) | | 650 (1) | | | |
| 1760-9 | 846 (6) | 881 (6) | | | | | |
| 1770-9 | 908 (6) | 873 (10) | | 900 (2) | | | |
| 1780-9 | 950 (4) | 813 (8) | | 600 (1) | | | |
| 1790-9 | 700 (1) | 1042 (3) | | 800 (1) | | | |
| total | 691 (151) | 677 (124) | 736 (7) | 1048 (13) | | | |

Appendix 2. Average ages at entry per decade (N)

a. *proveniers* at St. Jorishof Amsterdam

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------------|------------|------------|-----------|-------------|-------------|-------------|-------------|
| 1600-9 | - | - | - | - | - | - | - |
| 1610-9 | 55,3 (3) | 55,6 (13) | - | - | - | - | - |
| 1620-9 | 53,8 (17) | 54,3 (18) | - | 52,9 (18) | - | 59,5 (2) | - |
| 1630-9 | 54,6 (7) | 56,8 (9) | - | 49 (22) | - | - | - |
| 1640-9 | 52 (9) | 59 (11) | - | 53,9 (30) | - | 55,5 (2) | - |
| 1650-9 | 51,9 (10) | 55,4 (15) | 40 (1) | 60,3 (14) | - | 73,5 (2) | - |
| 1660-9 | 62 (2) | 55 (7) | - | 54 (4) | - | - | - |
| 1670-9 | 60,3 (16) | 61,3 (16) | - | 59,8 (10) | - | - | 50,3 (4) |
| 1680-9 | 54,9 (16) | 56,6 (16) | 50 (1) | 56,6 (20) | - | - | - |
| 1690-9 | 56,3 (6) | 63 (6) | - | 54,4 (14) | - | - | 47,5 (2) |
| 1700-9 | 58,2 (6) | 59 (5) | 62 (1) | 67,4 (16) | - | - | - |
| 1710-9 | 61,6 (11) | 64,6 (18) | - | 58,8 (12) | - | 71,5 (2) | 69 (2) |
| 1720-9 | 55,6 (8) | 64,7 (19) | 64 (2) | 61 (6) | - | 59,5 (2) | 61,5 (2) |
| 1730-9 | 62 (8) | 61,6 (14) | - | 59 (10) | - | 61 (2) | 47,5 (2) |
| 1740-9 | 58,1 (8) | 64 (12) | 65,5 (2) | 55,8 (6) | - | 51,5 (4) | - |
| 1750-9 | 62,4 (7) | 59,9 (28) | - | 62,5 (12) | - | 60 (2) | - |
| 1760-9 | 59,3 (15) | 60,9 (14) | 58 (1) | 60,2 (12) | - | - | 56 (2) |
| 1770-9 | 60,1 (11) | 59,9 (16) | 59 (1) | 59,1 (18) | - | - | 60 (2) |
| 1780-9 | 60,4 (9) | 59,6 (14) | - | 62,3 (18) | - | - | 64 (2) |
| 1790-9 | 60,1 (7) | 61 (11) | 61,5 (6) | 58,7 (8) | - | - | 64,3 (4) |
| total | 57,6 (176) | 59,8 (262) | 59,8 (15) | 57,7 (258) | - | 60,4 (18) | 57,7 (22) |

N=751

b. *proveniers* at St. Catherine's Leiden

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------------|----------|-----------|---------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | | | | | | | |
| 1670-9 | | | | | | | |
| 1680-9 | | | | | | | |
| 1690-9 | | | | | | | |
| 1700-9 | | | | | | | |
| 1710-9 | | | | | | | |
| 1720-9 | | | | | | | |
| 1730-9 | | | | | | | |
| 1740-9 | | 53,7 (3) | | 47,7 (9) | | | |
| 1750-9 | | 69,3 (4) | | 64,5 (2) | | | |
| 1760-9 | 60,3 (3) | 65 (1) | | 64,5 (8) | | | |
| 1770-9 | | | | 65,7 (6) | | | |
| 1780-9 | 56,8 (4) | 58,3 (3) | | 59,9 (14) | | | |
| 1790-9 | 60 (1) | 60 (1) | | | | | |
| total | 58,5 (8) | 61,5 (12) | | 59,1 (39) | | | |

c. *Commensalen* at St. Catherine Leiden

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------|------------|------------|---------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | | | | | | | |
| 1670-9 | | | | | | | |
| 1680-9 | | | | | | | |
| 1690-9 | 34 (1) | 79 (1) | | | | | |
| 1700-9 | | | | | | | |
| 1710-9 | 38 (1) | | | | | | |
| 1720-9 | | | | | | | |
| 1730-9 | | | | | | | |
| 1740-9 | 69,0 (21) | 65,6 (30) | | 61,3 (6) | | 71 (2) | |
| 1750-9 | 64,1 (21) | 65,2 (19) | | 70,8 (4) | 49 (2) | | |
| 1760-9 | 57,9 (21) | 62,6 (16) | 87 (1) | 67,4 (8) | | | |
| 1770-9 | 67,5 (19) | 65,0 (26) | 61 (1) | 66,8 (10) | | | |
| 1780-9 | 69,2 (27) | 69,3 (18) | | 60,9 (13) | 57 (2) | | |
| 1790-9 | 65,8 (5) | 69 (2) | | | | | |
| total | 65,2 (116) | 65,7 (112) | 74 (2) | 64,6 (41) | 53 (4) | 71 (2) | |

d. *Proveniers* at St. Cecilia Leiden

| | male | female | unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------|----------|----------|---------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | | | | | | | |
| 1670-9 | | | | | | | |
| 1680-9 | | | | | | | |
| 1690-9 | | | | | | | |
| 1700-9 | | | | | | | |
| 1710-9 | | | | | | | |
| 1720-9 | | | | | | | |
| 1730-9 | | | | | | | |
| 1740-9 | 57,5 (2) | | | 51,5 (2) | | | |
| 1750-9 | 65 (1) | 56 (1) | | 57,8 (4) | | | |
| 1760-9 | 58,5 (2) | 48,5 (2) | | 71 (2) | | | |
| 1770-9 | 56,0 (1) | 60,5 (2) | | 54,5 (2) | | | |
| 1780-9 | | | | 57,5 (2) | | | |
| 1790-9 | | 62,3 (4) | | | | | |
| total | 58,8 (6) | 58,1 (9) | | 58,3 (12) | | | |

e. *Commensalen* at St. Cecilia Leiden

| | male | female | Unknown | couple (mf) | couple (mm) | couple (ff) | couple (uu) |
|--------|-----------|-----------|---------|-------------|-------------|-------------|-------------|
| 1600-9 | | | | | | | |
| 1610-9 | | | | | | | |
| 1620-9 | | | | | | | |
| 1630-9 | | | | | | | |
| 1640-9 | | | | | | | |
| 1650-9 | | | | | | | |
| 1660-9 | | | | | | | |
| 1670-9 | | | | | | | |
| 1680-9 | | | | | | | |
| 1690-9 | 98 (1) | 83 (1) | | | | | |
| 1700-9 | | | | | | | |
| 1710-9 | 37 (1) | 93 (1) | | | | | |
| 1720-9 | 70,5 (2) | | | | | | |
| 1730-9 | | | | | | | |
| 1740-9 | 55,7 (6) | 54,7 (7) | 67 (1) | 59,5 (4) | | | |
| 1750-9 | 52,1 (17) | 51,1 (8) | | 79,5 (2) | | | |
| 1760-9 | 63,3 (6) | 57,8 (6) | | | | | |
| 1770-9 | 58,5 (6) | 59,9 (10) | | 64 (2) | | 74,5 (2) | |
| 1780-9 | 57,3 (4) | 61,4 (8) | | 79,5 (2) | | | |
| 1790-9 | 68 (1) | 52,3 (3) | | 74,5 (2) | | | |
| total | 57,4 (44) | 58,2 (44) | 67 (1) | 69,4 (12) | | 74,5 (2) | |

Appendix 3 Average stay per decade

a. *Proveniers* St. Jorishof Amsterdam

| | males | N | females | N | couples | N |
|--------------|-------------|------------|-------------|------------|-------------|------------|
| 1600-9 | 7,7 | 3 | 17,7 | 7 | 4,2 | 13 |
| 1610-9 | 12,3 | 4 | 11 | 4 | 2,7 | 3 |
| 1620-9 | - | - | | | - | - |
| 1630-9 | - | - | 17,5 | 2 | 8,5 | 2 |
| 1640-9 | 5,5 | 2 | 5,5 | 2 | 27 | 2 |
| 1650-9 | 21,7 | 3 | 16,2 | 6 | 25 | 1 |
| 1660-9 | - | - | 42 | 2 | 6 | 2 |
| 1670-9 | 20,1 | 7 | 21,8 | 8 | 19,2 | 13 |
| 1680-9 | 20,3 | 15 | 13,7 | 12 | 9,6 | 11 |
| 1690-9 | 18,2 | 6 | 23,4 | 5 | 16,2 | 15 |
| 1700-9 | 15 | 6 | 9 | 5 | 11,7 | 16 |
| 1710-9 | 11,6 | 11 | 15,9 | 18 | 13,1 | 16 |
| 1720-9 | 13,9 | 8 | 11,4 | 19 | 16,1 | 10 |
| 1730-9 | 11,9 | 8 | 8,9 | 14 | 13 | 14 |
| 1740-9 | 11,6 | 8 | 13,2 | 12 | 16,7 | 9 |
| 1750-9 | 11,7 | 7 | 12,8 | 27 | 12,3 | 12 |
| 1760-9 | 9,6 | 14 | 15,6 | 11 | 14,1 | 13 |
| 1770-9 | 10,2 | 10 | 11,2 | 13 | 12,6 | 16 |
| 1780-9 | 7,8 | 4 | 8 | 9 | 6,4 | 10 |
| 1790-9 | - | - | 2 | 1 | 4 | 1 |
| total | 13,4 | 117 | 13,7 | 177 | 12,6 | 179 |

b. *Proveniers* and *commensalen* St. Catherina Leiden

| | males | N | females | N | couples | N |
|--------------|-------------|------------|-------------|------------|-------------|------------|
| 1600-9 | | | | | | |
| 1610-9 | | | | | | |
| 1620-9 | | | | | | |
| 1630-9 | | | | | | |
| 1640-9 | | | | | | |
| 1650-9 | | | | | | |
| 1660-9 | | | | | | |
| 1670-9 | | | 44,5 | 2 | | |
| 1680-9 | 20,5 | 2 | 29,3 | 3 | 23 | 1 |
| 1690-9 | 19,4 | 19 | 19,7 | 15 | 25,8 | 4 |
| 1700-9 | 11,6 | 21 | 13,1 | 17 | 19,5 | 2 |
| 1710-9 | 9,1 | 23 | 9,5 | 15 | 11,0 | 7 |
| 1720-9 | 11,1 | 29 | 9,9 | 41 | 9,2 | 17 |
| 1730-9 | 12,2 | 29 | 12,8 | 45 | 15,2 | 30 |
| 1740-9 | 9,2 | 25 | 10,8 | 37 | 18,3 | 18 |
| 1750-9 | 12,2 | 17 | 14,2 | 22 | 16,8 | 10 |
| 1760-9 | 12,3 | 22 | 13,3 | 17 | 11,8 | 19 |
| 1770-9 | 7,6 | 18 | 11,0 | 26 | 10,7 | 15 |
| 1780-9 | 7,6 | 26 | 7,5 | 18 | 11,1 | 30 |
| 1790-9 | 9,8 | 4 | 10 | 1 | | |
| total | 11,2 | 235 | 12,3 | 259 | 13,5 | 153 |

c. Proveniers and commensalen at St. Cecilia Leiden

| | males | N | females | N | couples | N |
|--------------|--------------|------------|----------------|------------|----------------|-----------|
| 1600-9 | | | | | | |
| 1610-9 | | | | | | |
| 1620-9 | | | | | | |
| 1630-9 | | | | | | |
| 1640-9 | | | | | | |
| 1650-9 | | | | | | |
| 1660-9 | | | | | | |
| 1670-9 | | | | | | |
| 1680-9 | 29 | 1 | 27 | 1 | 31 | 1 |
| 1690-9 | 14,8 | 10 | 22,3 | 9 | 15,5 | 2 |
| 1700-9 | 9,0 | 12 | 14,0 | 6 | 21 | 1 |
| 1710-9 | 7,0 | 11 | 15,7 | 9 | 11 | 2 |
| 1720-9 | 8,5 | 24 | 9,9 | 16 | 17,7 | 6 |
| 1730-9 | 9,2 | 22 | 14,1 | 19 | 10,5 | 6 |
| 1740-9 | 13,7 | 16 | 10,7 | 17 | 16,0 | 10 |
| 1750-9 | 10,2 | 17 | 15,8 | 6 | 15,0 | 6 |
| 1760-9 | 15,8 | 6 | 13,0 | 8 | 3,5 | 2 |
| 1770-9 | 13,4 | 7 | 10,2 | 11 | 9,3 | 4 |
| 1780-9 | 9,0 | 4 | 10,9 | 7 | 10,0 | 4 |
| 1790-9 | 5,0 | 1 | 11,0 | 6 | 12,5 | 2 |
| total | 10,6 | 131 | 13,2 | 115 | 13,8 | 46 |