Estimating and explaining public service provision by religious organisations in the late-medieval Low Countries

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Among many other things, the medieval church was famous for its wealth.[1] The many separate organisations making up the church spent a large part of that wealth on religious services (liturgy). However, they were also responsible for most of the social spending in the preindustrial era (Tierney, 1959; Lindert, 1998).

Just how much social spending happened was something that could vary substantially from one place to the other. For instance, estimates on the Southern Low Countries suggests that fivefold differences existed in the distributions per recipient of poor tables (Blockmans and Prevenier, 1975). Similarly, the database presented below suggests that the amounts spent per recipient may have varied as much as 5–50 per cent of the subsistence level.[2] Explaining such differences would contribute greatly to the understanding of social policy and the distribution of wealth in the preindustrial era.

The purpose of this paper is first to present new estimates of the church's social expenditures in the cities and villages of the late-medieval Low Countries, specifically the counties of Flanders and Holland, the Duchy of Brabant, and the prince-bishopric of Utrecht (Nedersticht). The novelty in these estimates lies in eschewing detailed data on a relatively small number of individual poor relief organisations in favour of a cruder approach that would however encompasses a far greater number of organisation that would have participated in welfare. Although the focus is on social spending by religious organisations, estimates of religious expenditures are also presented. After all, religious and social expenditures were strongly intertwined in this period (Henderson, 1994; 2006). Their relationship is accordingly of interest as well.

The second goal of this paper to search for explanations for the differences in social spending. These will be sought in the political and social environment in which the religious organisations were founded and managed. Specifically, the interaction between urban politics and labour markets is investigated. We find strong effects of corporative politics on social spending in the cities of the Low Countries.

[1] Overviews of the economic role of the church in (Hoffman, 2007; Gilchrist, 1969).
[2] Assuming a 20 per cent dependency rate (Blockmans and Prevenier, 1975, p. 513) and using subsistence levels from Allen's real wage data (Allen, 2001).

The paper is structured as follows. Section one explains what religious organisations were and which services they might have provided to society. The second section introduces general theories on social spending that might guide the investigation. How estimates of the level of social and religious spending were constructed is explained in the third section. Section four discusses the relevant explanatory variables and how data on these was collected. Section five presents the results.

1. What were religious organisations?

What do we mean when we speak of religious organisations? The idea is that the medieval church was not a monolith, but actually consisted of many separate, relatively autonomous organisations: monasteries, chapters, church fabrics, rectories, poor tables, hospitals, chantries, and so forth.

One important shared characteristic of these organisations was their legal and financial construction. Roughly since the Gregorian Reform, the church consisted of many independent legal persons (Berman, 1983). Although the exact legal framework was still being developed, we would today recognise them as foundations, or trust-like devices (Feenstra, 1998). This meant that the assets of the organisation were separated from the beneficiaries by the rules of the foundation or a trustee (entity shielding, cf Hansmann et al., 2006). In addition, the pious activities were mostly funded from the returns on their endowments, instead of directly spending these assets. A substantial saving effort thus preceded the activities the foundations were meant to support (Hansmann, 1990). In other words, the wealth of the medieval church was distributed over many independent saving jars (about six thousand in the research area).

These foundations were in one way a very flexible device. The founder could stipulate a variety of purposes, provided it was at least nominally pious. For instance, outside the more familiar provision of a variety of prayers and charity, they could even be used to fund travelling lodges and maintain bridges (Barrois, 1966, p. 71). However, religious organisations also had one very inflexible characteristic. They were usually meant to last forever, so whatever purpose was deemed necessary at the time of foundation would be there for a long time afterwards. Although the authorities could make changes to the purpose of a foundation, this was not an easy process, requiring the involvement of many parties and the observance of many regulations (Kuys, 2004; van Beeck Calkoen, 1910).

In lieu of the state, these religious organisations were responsible for the provision of many of the non-violent public services in preindustrial Europe. For the sake of clarity, only two main categories of public services are distinguished here. Religious services make up the first category. It consisted of

paying for liturgy, remunerating the clergy, maintaining church buildings, and so forth. In many of the organisations treated here, these made up the bulk of the expenditures. Social spending made up the second category of public services, consisting of welfare (poor relief), health care, and education. In the preindustrial period, the religious organisations described above were responsible for pretty much all of it. Governments rarely if ever picked up the tab for social spending in this period (Lindert, 2004; Nicholas, 1987).

The most important category of social spending provided by religious organisations was welfare, both outdoor (mostly by poor tables) and indoor (by hospitals). These two organisations aimed at welfare were outnumbered by those predominantly providing religious services, such as church fabrics, rectories (*pastoriën*), monasteries, and chapters. Nonetheless, the combined contributions of the letter sort of organisation to the provision of welfare mattered as well. For instance, the small fraction a large rural abbey such as Rijnsburg spent on poor relief was still more than many rural poor tables could muster.

Religious organisations provided the other forms of social spending than welfare on a much smaller scale. Education was only rarely encountered in the accounts of religious organisations. Unambiguous health care expenditures were also observed infrequently. Furthermore, before the invention of curative medicine there was very little chance of it actually improving anyone's health (Colgrove, 2002), making such expenditures of questionable benefit. Because of this and their small size, the choice was made to subsume these two small categories in the welfare expenditures.

2. Theories on social spending

Lacking any substantive theories on social spending by religious organisations, we rely on more general theories on the causes of social spending to guide the investigation. Three main explanations can be distinguished. First, there is the voting explanation which asserts that the poor voted to take from the rich and give to themselves. In this theory, social spending only took off after the extension of the franchise (Lindert, 2004). The theory can apply to non-democratic societies as well because informal pressure (protests, riots, and the like) might have substituted for voting (Thompson, 1971; McCants, 1997, pp. 4–5).

The second theory is the elite control explanation. It suggests that the elite in a society used social spending to manage society, especially its lower ranks. It could for instance prevent unrest. It could also be used to manage labour markets by preventing emigration of workers in times of slack labour demand. This theory is especially popular in social and economic history (Boyer, 1985; Lis and Soly, 1979; van Leeuwen, 1994; McCants, 1997).

Finally, there is the insurance perspective. It suggests that corporate institutions providing welfare should be understood by the functions it fulfilled for their members. In order to mitigate the risks coming with the emerGhent European market economy, people are thought to have pooled their resources to assist in times of adversity. Guilds and confraternities are the most important corporate actors in this theory, but other religious organisations such as parish churches, monasteries, and poor tables are mentioned as well. More so than the previous two explanations, this one relates welfare spending directly to the needs they met. Private initiative accordingly has a large role here, whereas state actors are not strictly necessary (Greif, 2006; Richardson, 2005; Clegg and Reed, 1994; de Moor, 2008; Dehejia et al., 2007).

The three theories suggest two common directions to explain the prevalence of social spending. The first is political. How did the political decision making process work? Were politics participatory or not? Did governments have the power to influence welfare at all? With its emphasis on private initiative, the insurance perspective has the least need for political actors. The control explanation on the other hand has the strongest need since it focuses on the elites of society. Given their position, the instrument of choice in achieving their objectives would be have been government. Finally, the voting explanation suggests a strong role for participatory politics.

The second direction these theories hint at is the degree of uncertainty in the environment. Were there any risks to be managed? As the insurance perspective is largely driven by meeting the needs of participants, uncertainty in the economic and social environment is very important there. The relation is less direct in the control explanation, but an elite's willingness to press for social spending would still make more sense if there was some social problem that needed managing. Since lobbying for more money would make sense all the time, an uncertain environment is the least important in the voting explanation.

To scrutinize these theories, data is required on the level of social spending and the political and social makeup of the places where it was provided. The next two sections detail how this data has been collected for settlements in the Low Countries.

3. Constructing estimates on public service provision by religious organisations

Estimates on the expenditures on social and religious services by religious organisations are the starting point for this whole investigation. Constructing these estimates required two steps. First, the incomes of religious organisations in each of the settlements of the research area were required.

Next, these estimates had to be combined with the shares of those incomes going to social and religious services.

The basis for the income estimates is the first proper tax levied on religious organisations in the Low Countries. Unlike earlier haphazard taxes, the 1532–3 *Geestelijke subsidie* tax granted by Clemens VII to Charles V included many of the relevant organisations and clearly stated how they were to be assessed.[3] The tax was levied in most of the principalities making up the Low Countries. Though the Nedersticht at first did not participate, in the period 1543–53 a number of taxes were levied there that were clearly modelled after the *subsidie* tax.[4] These taxes allow us to make reasonably accurate estimates of the incomes of religious organisations, even for the many whose own administration has been lost.

The tax required some processing before it could be used. First of all, the *subsidie* used income brackets. Organisations with an annual income exceeding 24 ducats (fl. 44.4) were assessed at 50 per cent of their annual income, those with an income between 12–24 ducats (fl.22.2–44.4) at 20 per cent, and those below 12 ducats were exempt.

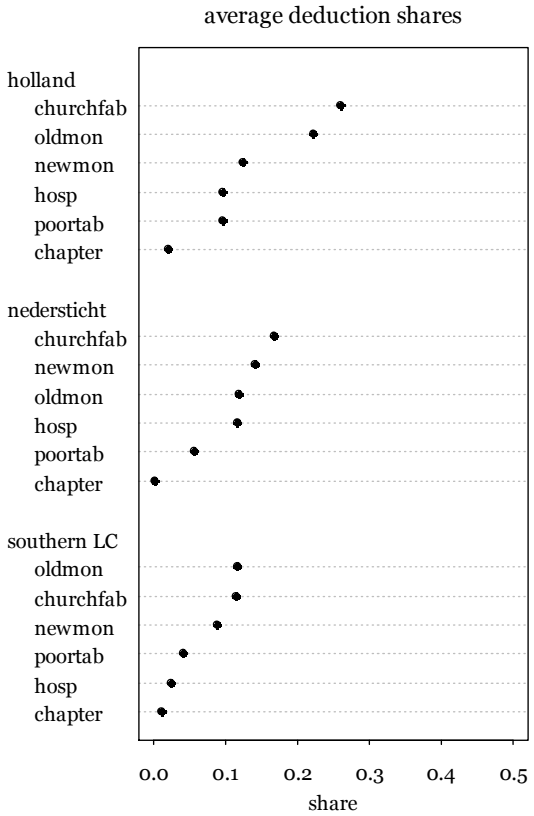
The differing tax rates are easily resolved, but the exemptions pose a bigger problem: which organisations are missing? The solution was to enumerate all religious organisations in the research area. A list of all organisations with their (approximate) foundation and dissolution years in the research area was made from ecclesiastical atlases, in turn based on contemporary diocesan administration (*cathedraticum* payments and *pouillés*, mostly) (Muller and Joosting, 1921–3; De Moreau, 1940–1952). The result was cross-checked with and supplemented by archival inventories and secondary sources on church architecture, hospitals, and monasteries (e.g. Goudriaan, 2005; 2008; Ursmer et al., 1890–1993; van den Hartog, 2002; English, 1939; Demey, 1977; Firmin de Schmidt, 1940; van Buyten and Verhelst, 1968; Goudriaan, 2010; Mertens, 1845–1853; Bonenfant, 1965; Maréchal, 1978; Smith, 1979; Kuys, 2004).

Armed with this list, crude estimates of the income of missing organisations could be made. Some were expected to be included in the tax and were thus presumed too poor to tax. They were accordingly imputed at values in the exempt income bracket. Most of these were benefices for small churches and chapels. The other missing observations were probably exempt for other reasons than poverty. In the bull, the pope exempted only the houses of mendicant and military orders. The incomes of the latter could be obtained from the literature and the extensive archives of these strongly

[3] Baelde gives an introduction to the tax (Baelde, 1965). The tax records with a copy of the papal bull are in: Nationaal Archief (NA) 3.01.27.02 Grafelijkheidsrekenkamer *nos* 3538–41; Rijksarchief te Brussel (RAB),Chambres des comptes, *nos* 15762 (Brussels) 32716 (Antwerp), 22655 ('s-Hertogenbosch), 41374 (Ghent), 22734 (Bruges), 7414 (Mechelen).
[4] Utrechts Archief (UA) 216 Domkapittel *nos* 3351, 3363, and 3374.

hierarchical orders (Mol, 1991; van Winter, 1998).[5] Mendicant houses were more problematic because they have left behind very few administrative records. The mandatory communal and private poverty of these houses is probably to blame for these lacunae – there was not much to administrate in the first place (Brooke, 1975). It however also means that their absence should not create great distortions. Without any property these orders would not be very wealthy. The mendicant houses were estimated at budgets of the same order of magnitude as the few for which budgets could be found.

Hospitals and poor tables were not exempt in principle, but Holland chose not to tax them anyway. For a good number of cases, alternative income estimates could be used, either from the literature on hospitals or their own accounts. These organisations were often taxed in Brabant, Flanders, and the Nedersticht. The remaining hospitals were estimated through random imputation together with the remaining missing organisations based on a simple linear model of incomes and a number of characteristics of the organisations, including type and location (Gelman and Hill, 2007, pp. 529–43).



[5] Archieven Duitse Orde, Balije Utrecht (ABU), Oud Archief (OA), *nos* 335, 2047.

Figure 1. Average deductions as share of total income by type of organisation and region.

Another problem with the tax was that deductions were possible. Fortunately, an instruction to the tax collectors by Mary of Hungary in 1533 provides a list of them (published in Brouwers, 1934). The organisations could deduct expenditures on annuity instalments, contractual or customary distributions to the poor, lay taxes (*bedes*), water management, and expenditures on the care for patients by hospitals. For each type of religious organisations in each province, the share of deductable expenditures was calculated and the incomes derived from the taxes were corrected accordingly (see below for more on the sample from which these deductions were derived). Overhead costs as a share of the total expenditures were fairly stable within one type of organisation, so these estimates are reasonably accurate. Hospitals could make much larger deductions, usually around 70 per cent of their income. Their actual tax rates (about ten per cent) were obtained by directly comparing tax assessments with incomes for hospitals where both were available. The eventual income estimates of these procedures are presented in figure 2.

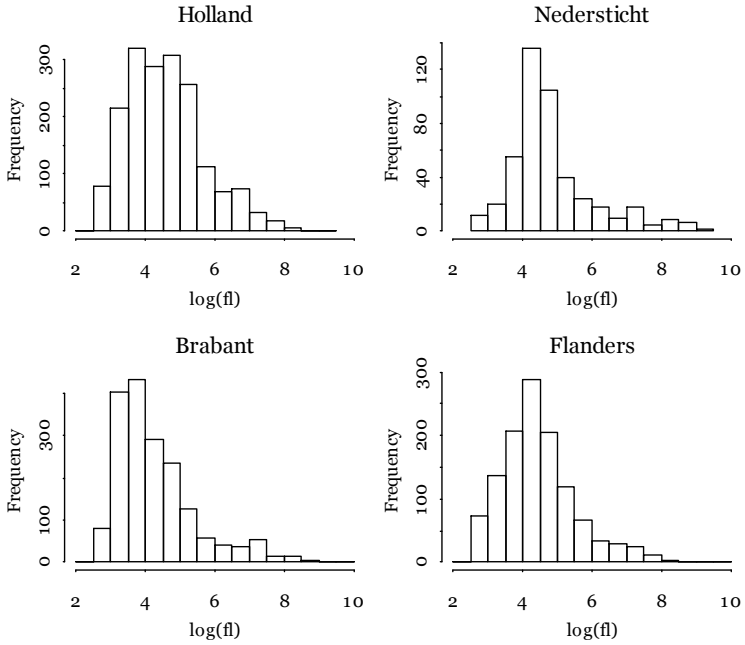


Figure 2. Distribution of estimated incomes of religious organisations by province.

The next step was to determine how much of these incomes would have gone to the two public services. To this end, a sample of the expenditure patters of

religious organisations was made. Data was collected from the accounts of the organisations in the Rijnland region of Holland, the prince-bishopric of Utrecht (Nedersticht), and the city of Ghent and its surroundings in Flanders (for Brabant an average of the three regions was used). For each type of organisation (church fabrics, poor tables, hospitals, chapters, old monasteries, and new monasteries) the shares of the budgets going to either social or religious services (as well as a host of other matters) were reconstructed. This sample of expenditures was based on 151 accounts spread over 49 different organisations. Variation of the shares within each type of organisation was small, even amongst organisations located in different principalities.[6]

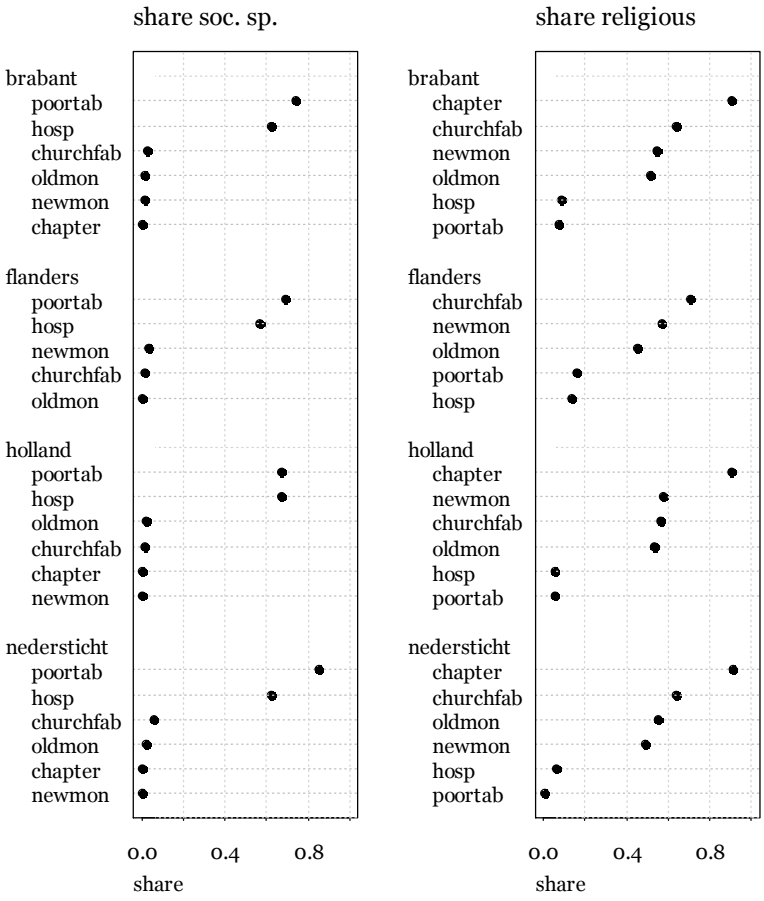


Figure 3. Expenditure shares on social spending/welfare and religious services, by province and type of organisation.

For the separate benefices there were no sources to reconstruct expenditures shares. Since their proceeds went directly to the clergy, they were assumed

[6] See the rest of the thesis for extensive details on this sample.

to go nearly completely towards the provision of religious services, not unlike the patterns found for chapters, the most narrowly focused organisations in the sample.

This sample of shares was then used to obtain expenditures on the two public services by multiplying them with their respective incomes. Next, these expenditures were aggregated for each settlement to obtain the total expenditures on social and religious services there. By using the foundation and dissolution years of organisations, the data could be compiled for multiple points in time, allowing us to construct very crude growth figures as well.

Aggregating the data on individual organisations was a complex step in the construction of the dataset. There were three possible indicators on which this could be done: parishes, contemporary settlements, and present-day settlements. Their coverage could vary considerably. For instance, a city might consist of multiple parishes (e.g. Utrecht) or one parish might cover a number of settlements (Haarlem and the villages of Heemstede, Berkenrode, Tetrode, Zandvoort all residing under St Bavo). Wherever possible, contemporary settlements were used and parishes were merged and split accordingly. In some cases, contemporary settlements had disappeared (usually due to flooding). In those cases, nearby present-day settlements were used so geospatial information could be added nonetheless.

Because we needed to express the expenditures on a per capital level, population estimates for all cities and villages in the dataset were required as well. The estimates for villages were made on the basis of the detailed heart counts for Holland (1504: Fruin, 1866), Brabant (1526: Cuvelier, 1912-1913), and Flanders (1469: de Smet, 1935; Mertens, 1977). For the cities direct population estimates from secondary sources were used (Lourens and Lucassen, 1997; van Uytven, 2004a; Stabel, 1995). Estimating the population in the Nedersticht required relating a housing tax (the *huisgeld* of 1530) to later similar taxes and population estimates (1623, cf Vermeulen, 1847; de Vries, 1974).[7]

The eventual results of the per capita expenditure estimates are presented in figure 4. With social expenditures in cities ranging from as little as fl. 0.10 to over fl. 2 per capita, there is indeed something left to explain. The rural range is even larger. This is mostly due to the 'abbey effect'. Some of the largest religious organisations were purposely located in the countryside, far from large population centres. This could blow up the per capita expenditures in the small nearby villages. Conversely, some villages hardly any religious organisations nearby.

[7] *Huisgeld* tax: UA 58 Staten van Utrecht *no* 369.

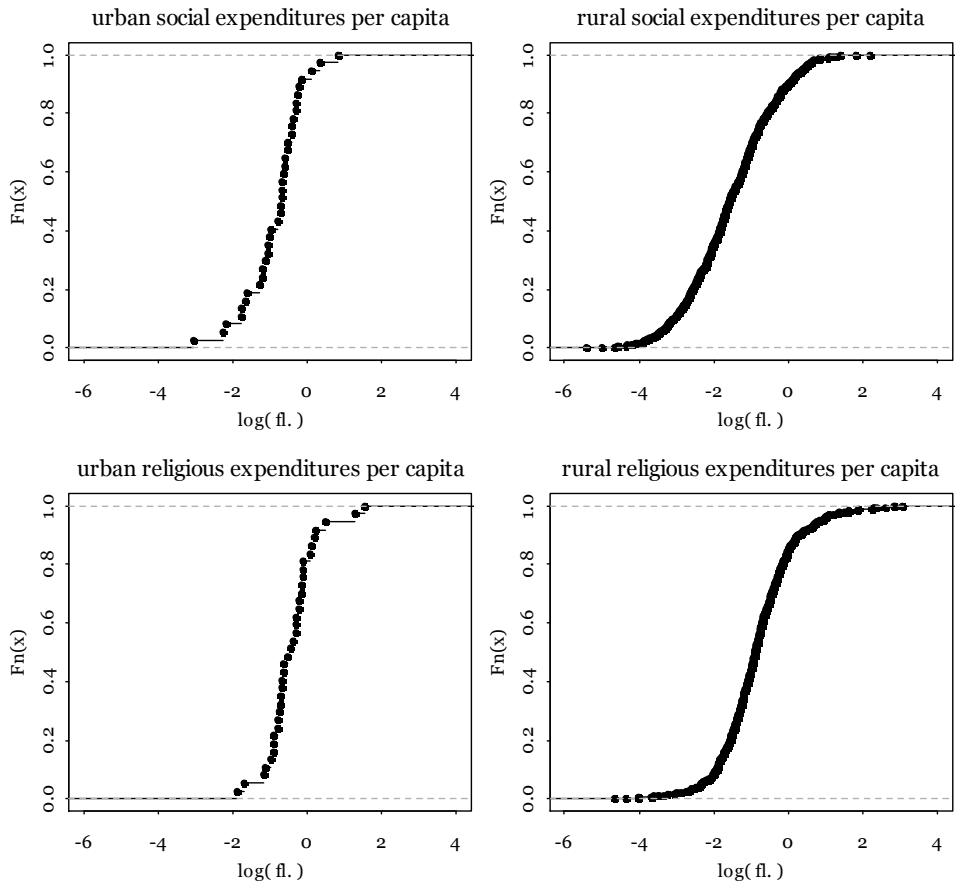


Figure 4. Cumulative distributions of social (top panels) and religious (bottom) expenditures by religious organisations in the urban(left) and rural (right) settlements of the Low Countries in ca *1532.*

The steps described above suggest that these estimates can sometimes have a substantial margin of error. Making these estimates is nonetheless a worthwhile exercise. First of all, as far as I know, estimates like these have never been made for the late-medieval period. Any such quantitative effort would pretty soon run into missing-data problem and the like. Although a certain degree of uncertainty would thus surround any investigation into this period, this should not preclude quantitative research from being undertaken in the first place. Instead, we should try to find out how much we can do with the limited resources available. Second, the wealthiest organisations were by far the most likely to be estimated directly, so most of the total income is accounted for. Finally, expenditures have been aggregated for each settlement. So although there might be uncertainties surrounding some of the individual organisations, the totals for the settlements, especially the larger ones, are less sensitive to this.

4. Explanatory variables

The theories about the causes of social spending suggested that the political environment and labour conditions were very important. In this paper, variation in these two factors is sought at the level of cities and their surroundings. This sections discusses why this level of analysis is appropriate and presents some of the variables that were collected.

At first sight, ecclesiastical and central governments may seem to be the most pertinent institutions in the control of religious organisations. Though we will try to include them in the analysis as well, the starting point for this paper is that the most pertinent explanations for the social spending by religious organisations need to be sought at a lower level.

The most important reason for looking at a lower level is that the founding of organisations was highly dependent on local initiative. Only rarely can policy by ecclesiastical or territorial authorities be distinguished in foundations beyond encouragement and private involvement of clergymen. Furthermore, were foundations were always going to happen near the residence of someone making the foundation. Not only would they reap any possible benefits there, but they also needed to donate their often local assets (often real estate) to the organisation. This also held for donations to existing organisations, another important sources of growth and regulations for religious organisations.

Another reason to give ecclesiastical factors less attention is that by the fourteenth century ecclesiastical government was no longer what it had once been. After the thirteenth-century high point in ecclesiastical hierarchy, the Papal Schism and a sprawling bureaucracy began to seriously undermine the effectiveness of its governance (Southern, 1970). Territorial and local secular authorities stepped in to fill the gap. Moreover, in the research area, most of the sees of the bishoprics (Cambrai, Tournai, Liège) were outside the principalities being studied here. This made enforcement of any of their decisions very difficult, since this often relied on secular cooperation. In the remaining diocese, Utrecht, the bishops were in a constant struggle with the chapter provosts about ecclesiastical jurisdiction (Kuys, 2004). In both situations, the independence of religious organisations vis-à-vis the church hierarchy was increased.

The choice was furthermore made to focus on local governments rather than the ascendant central governments of countries. Part of the reason for this was practical. Nearly all of the principalities included in this analysis were long united under the Burgundian-Hapsburg government, which in turn was the source of the crucial taxation sources. It was thus unfeasible to collect data on such a scale that state-level comparisons were possible.

Using cities as the unit of analysis would however also be desirable in its own right. Simply put, for most of the preindustrial period, cities were very important political and social focal points. This holds true for large parts of Europe (Epstein, 2001; Kiesßling, 1989; Chittolini, 1989) and especially for the Low Countries (Blockmans and Prevenier, 2000; van Uytven, 2004b).

Indeed, in spite of the ideal of ecclesiastical liberties we can observe a good deal of *de facto* policy concerning religious and charitable organisations being made at a regional level (Constable, 1964, p. 308). Cities were especially productive in this respect (Tervoort, 2009). Some examples include Leiden and Delft striving to merge monasteries with hospital in the sixteenth century (Ligtenberg, 1908; Oosterbaan, 1954), Leiden's interference with its female monasteries (van Luijk, 2003), 's-Hertogenbosch's successful attempt to limit the number of nuns at the Great Hospital (Coopmans, 1964, pp. 145–54), and the aldermen's regulations for Bruges' hospitals (Maréchal, 1978).

These arguments lead to the search for variables capturing the effectiveness of local governments, the political decision making process there, and the labour environment they had to deal with. Many of these explanatory variables could however only be collected for cities, not for the rural villages in the data. The solution employed here is to work from the fact that cities had considerable influence over their surrounding countryside (Kiesßling, 1989; Epstein, 2001). Because the analysis of rural and urban settlements will be kept separate (see below), the results of this solution can still be distinguished later on.

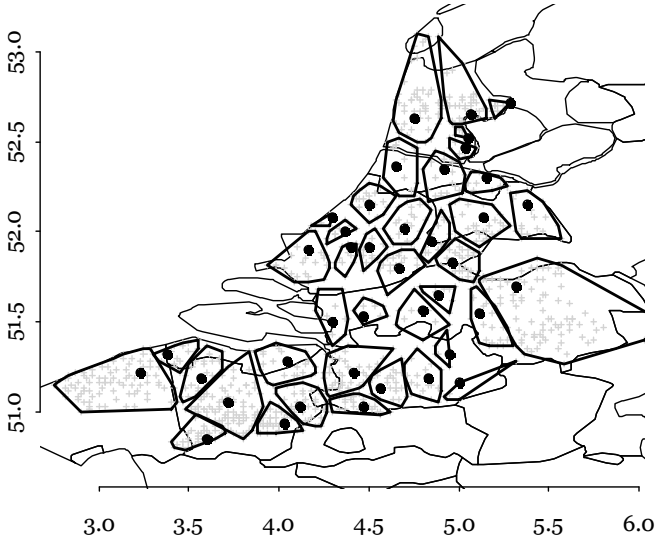


Figure 5. Cities and regions in research area projected on map of present day Low Countries.

Defining city-regions is not straightforward. Secular and ecclesiastical jurisdictions did not always bear a relation to the location of cities, especially newer ones. Moreover, such jurisdictions did not provide all cities with a region. Instead, the region of a city was defined to include all locations closer to that city than to any other. Figure 5 presents the resulting regions.

Because it would intuitively not make sense for a town like Eeklo (2 000 inhabitants) to be assigned a region as large as that of Ghent (60 000), the distances were weighted by the population of the city. This correction made regions at most 50 per cent larger than they would be if absolute distances were used. Repeating the analysis below for other region definitions did not qualitatively change the results. Experiments with variables indicating the secular and ecclesiastical jurisdictions were also unfruitful.

One important factor to include in the analysis is the capacity of urban governments', the ability to enforce its decisions. The control and voting explanations would suggest a positive effect from such a variable. The more saying power governments could get over religious organisations, the more we'd expect elites (control explanation) or lobby groups (voting explanations) to be able to increase welfare to their desired ends.

However, because capacity is a very broad concept, coming up with variables that can capture it is difficult. Gathering information on the cities' budgets is one solution, but this data was not available for enough cities. Another solution is to look at the different periods in which cities originated. To do this, we have looked at the length of time a city had governed itself, approximated by the length of time it had urban liberties. The idea behind this variable is that cities cold gain the most extensive privileges early on, during the period when central authorities still needed to make bargains to solidify their rule (van Bavel, 2010, pp. 209–13). Governance institutions of the city would also have been more mature if there was a longer tradition of self-government.

To collect this data for the Netherlands, Cox's database on urban liberties could be used (Cox, 2005). For Belgium the data had to be collected from a variety of secondary sources (van Uytven, 1980, p. 218; Blockmans, 1938; Steur, 1971–2). Some of the cities, especially the older ones in Flanders and Brabant, probably had extensive privileges and self-governance before any formal urban charter was granted. Typically, such cities had values indicating considerably age anyway, but in these cases the actual duration of autonomy might be underestimated.

Similarly, we also tried to capture the cities' influence at the central authorities. Regulations concerning religious organisations were also made at the territorial level, for instance the many attempts at *mortmain* regulations to stop the accumulation of assets in the tax-exempt hands of religious organisations. It were in fact the cities of Holland that lobbied for these and other regulations concerning religious organisations on more than one occasion (Jongkees, 1942). Increased influence over religious organisations through the central government would be expected to have had similar effects as the previous variable on government capacity.

To measure this aspect, a contemporary assessment of the necessity of the central authorities to negotiate with a city can be used. The estates general of the Low Countries were just the place where such negotiations would take place. Therefore, data has been collected on how often the city was represented at the estates general in the period 1464–1506 (Wellens, 1974).

Presumably, the level of social spending would grow along with the settlement and this is something that should be controlled for. Expressing the outcome variable on a per capita basis is already a step in this direction. For the cities, it was also possible to control for population growth itself. Data on population was therefore collected for *ca* 1400 as well as *ca* 1500 (van Uytven, 2004a; Lourens and Lucassen, 1997). Flemish city population estimates for *ca* 1400 were estimated from the *transport* tax of 1408 (Stabel, 1997).

In the theories explaining the prevalence of social spending, the political decision making process and the labour environment had a prominent place. Guilds have a number of characteristics that make them a useful source of variation to analyse these matters. First of all, they were a political force in their own right. Guilds could either have an institutionalised position in urban government, or would at least be a potentially riotous lobby group that had to be taken into account by governments (Prak, 2006). Naturally, labour issues would be high on their agenda. The importance of such organised social and political groups is furthermore emphasised in the theoretical literature (Acemoglu et al., 2005; North, 1990).

The second characteristic is that they were an alternative system of providing security for its members. They could either have lobbied for more social spending or substituted for it through regulations and own provisions (Hungerman, 2005). In other words, guilds could either increase social spending in the framework of a voting or control explanation, or they could decrease it in the insurance perspective by substituting for it.

Measuring the strength of guilds is not straightforward. Information on their institutionalised position is available for some cities, but far from all. One way around this is to look at the origins of guild strength. A crucial

event in the position of guilds was the Battle of the Spurs in 1302. Shortly following the success of the urban militias there, guilds obtained strong positions in many of the cities of the Low Countries. Guilds movements started after this moment were usually unable to do the same (van Uytven, 1962; Prak, 2006).

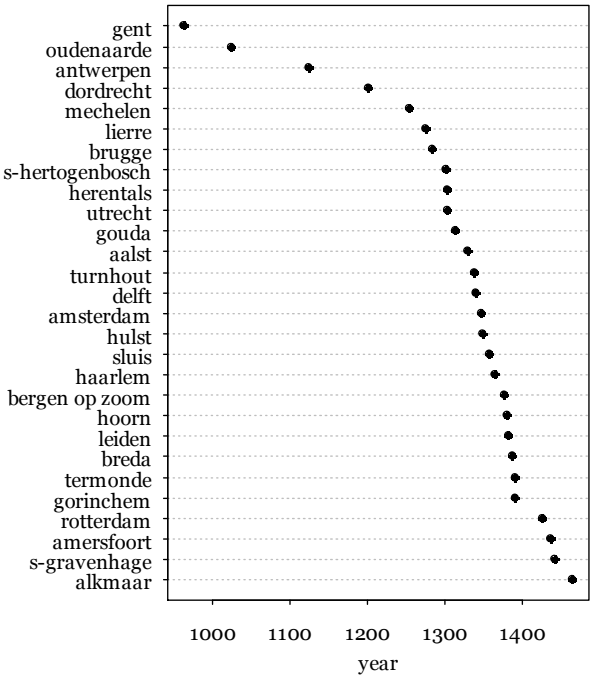


Figure 6. Years of earliest recorded guilds in cities in the research area. Cities without any guilds are omitted. Source: see text.

Data on guilds comes from updated versions of the databases started by Lourens & Lucassen (Netherlands) and Demunck & Soly (2011; Lourens and Lucassen, 1994; De Munck et al., 2006).[8] From these databases, variables were constructed on whether or not guilds were already present early on (before or shortly after the Battle of the Spurs), the number of guilds, and the length of time guilds were present for each city in the research area.

It was suggested in a number of the theories that the exposure of the beneficiaries of social spending to the risks of a specialised and commercialised economy mattered. For instance, in urban environments the presence of a large exporting manufacturing sector with its reliance on wage labour and sensitivity to the fluctuations of international trade could bring along sharp

[8] An early version of the database for the Netherlands to appear on collective-action.info was provided by Tine de Moor.

changes in the income of the workforce there. Especially the control and insurance explanations had a large role for such factors. This was measured by looking at whether the city had an export-oriented textile industry (Fruin, 1866; Dekker et al., 1997; Stabel, 1997; van Uytven, 2004a).

Although the autonomy of religious organisations and the importance of their local environment has been stressed so far, ecclesiastical authority obviously must have had some impact as well on the functioning of religious organisations. At the very least, this factor should be controlled for. A very crude way was to include a variable measuring the distance to the diocesan centre, departing from the idea that with difficult lines of communication, proximity would imply more influence.

Another option was to include an indicator variable for the presence of large religious organisations in a settlement before 1200. In a similar vein, a variable on the age of the parish has been constructed as well. These variables exploit the fact that a local position of power by religious organisations typically had to be obtained early on in the Middle Ages. In this period, foundations were still closely associated with royalty or feudal lords. They, in turn, were able to bestow great wealth and privileges.

Many examples of such strong positions of the oldest religious organisations can be given. For instance, the most frequently represented clergy in the States of the Nedersticht were the five chapters of Utrecht (van den Hoven van Genderen, 1987), two of which were founded in the ninth, and three in twelfth century. Similarly, the prelates with a seat in the estates of Flanders came from large foundations of the seventh (St Bavo, St Peter in Ghent), ninth (Torhout chapter), eleventh (Oudenburg, Eekhout, St Donatian in Bruges, St Pharailde in Ghent), and twelfth centuries (Ter Doest, Zoetendale) (Blockmans, 1968). Furthermore, this type of organisation often owned seigneuries, adding local jurisdictional powers to their sphere of influence.[9]

5. Results

The dataset described above is analysed with simple linear regression models of the growth of per capita expenditures two public services (social and religious) over the period 1200–1532 on the political and ecclesiastical variables as well a number of control variables. This allows us to estimate the size of effects suggested by the ideas put forth in the section on theories of social spending while controlling for as many variables as possible.

[9] For seigneuries in Utrecht, see UA 58 Staten van Utrecht *no* 369; on the Franc of Bruges: Mertens (Mertens, 1977). In Holland, the abbeys of Egmond (f. 889) and Rijnsburg (f.1132) had seigneuries (Fruin, 1866).

The models have been estimated separately for urban and rural environments. There are a number of reasons to do this. The first reason is the somewhat artificial construction of city regions. The idea that a city's influence would be felt in its surroundings as well was not entirely farfetched, but urban environments were legally distinct from rural environments. So although there were close connections between a cities and its surrounding countryside, the possibility that these would accordingly have developed differently needs to be allowed.

A second reason to estimate rural and urban models separately is that expenditures for urban locations were aggregated from many organisations whereas rural observations could consist of far fewer, sometimes only a single chapel. This means that the observations for large conglomerations of organisations such as cities are less sensitive to measurement errors.

	log(growth soc. spending/capita)		log(growth rel. spending/capita)	
	Estimate	Std. Error	Estimate	Std. Error
		Urban		
(Intercept)	-0.987	1.921	3.395**	1.724
city growth	0.016	0.034	0.01	0.021
log(pop)	-0.069	0.214	-0.538**	0.214
city age	-0.044	0.097	-0.021	0.104
estates	-0.017	0.016	-0.008	0.011
utrecht	-1.541*	0.792	-0.23	0.955
large relorg. in 1200	-0.441	0.462	0.492	0.437
distance to diocese	0	0.002	-0.002	0.003
parish age	0.152	0.106	0.11	0.079
early guilds	1.586***	0.481	1.049**	0.526
textile	0.08	0.348	0.403	0.328
early guilds × textile	-1.652***	0.543	-1.536***	0.472
		Rural		
rural	5.434***	1.906	-0.636	1.611
city growth	-0.02	0.042	0.003	0.021
log(pop)	-0.852***	0.229	-0.114	0.202
large relorg. in 1200	-0.411	1.24	-0.46	0.644
distance to diocese	-0.003	0.002	0.003	0.003

	log(growth soc. spending/capita)		log(growth rel. spending/capita)	
parish age	-0.364***	0.122	-0.177**	0.084
city age	-0.009	0.117	-0.026	0.097
estates	0.033*	0.017	0.012	0.011
early guilds	-1.971***	0.686	-0.781	0.494
textile	-0.204	0.446	-0.232	0.357
early guilds × textile	1.781**	0.73	1.368***	0.489
	n = 561		n = 635	
	k= 538		k= 612	
	residual sd= 1.398		residual sd= 0.952	
	R-squared= 0.32		R-squared= 0.29	

*Table 1. Estimates and standard errors for a regression model of the growth of social (left columns) and religious expenditures (right columns) by religious organisations in urban (top half) and rural (bottom) settlements in the Low Countries over the period 1200–1532. Standard errors clustered at regions. Significance at the ten, five, and one percent levels indicated by *, **, and *** respectively.*

Table 1 presents the results of the models. Because it sticks the closest to most of the explanatory variables, the urban results for social expenditures will be discussed first. To get the less productive variables out of the way first, demography (population level and city growth) did not show an effect on growth in per capita social spending over the period 1200–1532 once all the other variables were accounted for.

The variables meant to capture the position of the ecclesiastical hierarchy (parish age, the distance to the diocesan centre, the indicator variables for Utrecht and the presence of large religious organisations before 1200) do not fare well in this specification. Only the Utrecht indicator meant to capture the diocesan centre has a significant negative effect, but this one observations can hardly account for all the intricacies of the Nedersticht's coinciding ecclesiastical and secular government.

The variables measuring government capacity (duration of city liberties and representation at the estates general) do not perform better. All these effects are small and statistically insignificant. So far, this does not bode well for the proposed political effects, especially the control explanations. It hinted at a mechanism where strong governments would be able to use

welfare – largely funded from outside the city – to control its population. No such association has however been found.

However, the guild variables do stand out. Taken together, the early presence of guilds showed no effect that was distinguishable from zero (the combined effect of guilds and the guilds × textile interaction, roughly 1.59 – 1.65 and not statistically significant). However, once the distinction is made between early guilds in cities with a large manufacturing workforce (those heavily involved in textile export), the effect becomes very large and significant. Holding all else equal, early guilds in textile producing cities (Ghent, Mechelen, and so forth) were associated with much lower growth of per capita social spending over the period 1200–1532 (five times less, exp[-1.59]). In cities with another economic base (trade cities especially, think of cities like Dordrecht or 's-Hertogenbosch), the early presence of guilds was associated with a higher level of social spending of roughly the same magnitude.

How should these effects be interpreted? The fact that there was a positive association between high social spending and early guilds in non-textile cities suggests that voting-like explanations hold some sway. These were typically cities with a substantial degree of participatory politics (van Uytven, 1962), or where there was at least a well organised social group to take into account. Furthermore, the fact that this did not occur in locations with volatile labour environment is not supportive of the control explanations. After all, in these locations, managing the labour market would be of even greater importance than elsewhere. Instead, social spending was highest in cities without such an environment.

Where there were both early guilds and a high-risk environment, there appears to have been no need to build a large support infrastructure through religious organisations. The most obvious explanations is that the guilds' regulations and own support network lessened the need for social spending through religious organisations. So instead of out-and-out political perspectives, this picture of corporate actors substituting for support gives credence to the insurance perspectives. Guilds were much more focused on resource pooling by participants, whereas religious organisations were. largely funded with outside wealth, not by the direct beneficiaries of the organisations. The results found here suggest that private initiatives were the first port of call to deal with the uncertainties of commercialised economies.

However, some reservations should be made. First of all, in experiments with the alternative guild variables, the effects were not of the same magnitude. For instance, something like the mere presence of guilds did not show

an equally strong associations with social spending.[10] This in turn suggests it was the institutionalised position of guilds in politics that gave the edge. In other words, the ability to provide for the participants depended on the political environment as well.

A second reservations is that the effect is somewhat too great for comfort. Is an average fivefold increase realistic? This sort of variation did exist between cities (see figure 4), but it is hard to believe that all this was down to the presence of corporative groups alone. The true mechanisms are probably more nuanced. However, given the number of city observations and the difficulty of constructing explanatory variables for each, it is at the moment not possible to investigate these issues further.

Looking at the religious expenditures, it is found that these by and large, moved with, not against those of social expenditures. In other words, one did not come at the expense of the other. In a system where many religion-focused organisations did some social spending and many social-focused organisations did some religious spending, this is not very strange. Nonetheless, substantial specialisation between different classes of organisations did exist (see figure 3), so foundations and donations them would have to keep equal pace in a city to obtain such a result.

The most interesting part of the rural results is that they are often the opposite of what was found for the cities. This may be explained by the fact that the patrimony of the largest urban organisations was based on rural property. This means that the income behind urban social spending largely came from the countryside, leaving less resources for the rural settlements themselves.[11]

6. Conclusion

This paper has presented estimates on the public service provision by religious organisations in the cities and villages of the late-medieval Low Countries. It was discussed how enumerations of religious organisations and ecclesiastical taxes can give estimates on the level of social as well as religious spending.

[10] The number of guilds variable could even work the opposite way: an extra guild was associated with slightly more social spending in industrial cities. The number of guilds is however a poor measure of their position. Many guilds did not necessarily translate into strong guilds.

[11] Observations for some rural settlements sometimes consisted of more inaccurately estimated organisations than was comfortable. Because these observations were usually also low values (these were much more likely to be missed). In this respect, the data can be considered to be bottom-coded. Therefore, a censored regression model was estimated as well that excluded these problematic observations (results not shown). As expected, this alternative specification showed no differences for the urban models. The effects in the rural models were diminished, but qualitatively similar.

Three theories were used to better understand the causes underlying social spending by these organisations. One suggested the importance of voting, the other the importance of elite control, and the last one looked at social spending from an insurance perspective. Despite their differences, all had implications on the relative importance of the political and social environment in which social spending happened, especially in relation to labour markets. Therefore, data was collected on these factors. A common strategy for constructing variables on these factors was to exploit the timing of their development in the Low Countries.

The results showed a very strong guild effect. This suggested two things. First, the high level of social spending in cities with strong corporative groups hinted at the importance of lobby and vote-like political explanations, even in the relatively undemocratic preindustrial era. Second, the low level of social spending in manufacturing centres with strong guilds showed that there might have been a substitution effect. Private initiative for regulation and own support networks could replace social spending through religious organisations.

7. References

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