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POOR RELIEF IN SIXTEENTH CENTURY ENGLAND

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Poor Relief in Sixteenth Century England

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POOR RELIEF IN SIXTEENTH-CENTURY ENGLAND The amount of charitable provision administered by the monasteries of the later Middle Ages has long received the attention of historians exploring pre-industrial social-welfare systems. Most nineteenth-century commentators remained skeptical about the value of monastic poor relief: "The charity distributed by the monks . . . was to a great extent unorganized and indiscriminate and did nearly as much to increase beggars as to relieve them."[1]

No systematic study of monastic charity was carried out, however, until Savine's analysis in 1909. Using the national Church tax assessment of 1535, known as the *Valor Ecclesiasticus* (hereinafter *Valor*), Savine calculated that the average proportion of monastic national gross income spent on poor relief was c. 2.5 percent -- a figure that remained influential on historiography until as recently as 1998. Among those who revised this interpretation, Harvey outlined the provision of the sixteenth-century Westminster Abbey where the monks distributed the large sum of £400 per annum -- about 10 percent of the Abbey's gross income -- in various forms of relief to the poorer inhabitants of Westminster and London.[2]

Several early modern historians have suggested a revision of the traditional view. According to Slack,

> The dissolution of the monasteries, chantries, religious guilds and fraternities in the 1530s and 1540s radically reduced existing sources of charity. The real aid which they had provided for the poor was no doubt concentrated geographically, but it was more substantial than has often been supposed, and

> its destruction left a real vacuum. It has been estimated that monasteries alone provided £6,500 a year in alms before 1537; and that sum was not made good by private benefactions until after 1580.[3]

If Slack is correct and charitable relief was indeed higher than Savine's estimates indicate, the disruption in aid caused by the Dissolution may have had profound effects on the lives and wellbeing of the English poor.

The *Valor* originally consulted by Savine, which contains detailed information about the income and expenditure of most of the religious houses and many of the hospitals in England and Wales, is an indispensable source for the economic condition of the religious houses on the eve of the Dissolution. But it is also problematic. First, it is incomplete. Because data collected from houses in Berkshire, Cambridgeshire, Essex, Hertfordshire, Northumberland, Rutland, and parts of Yorkshire do not survive in the original returns, only a severely truncated accounting of the taxable net income for these counties is available. Second, religious houses appear to have underassessed their gross income at times. Certain houses in Lancashire were especially prone to do so. Third, and perhaps most important, the political situation in 1535 created a sociopolitical bias in the members of the commissions assigned to undertake the valuation.

This study allows for these inaccuracies. It also takes into consideration the effects of topographical and regional aspects of house location on levels of poor relief, as well as any differences by denomination. So adjusted, the evidence contained in the *Valor* can produce rigorous estimates of

the poor relief offered by Tudor monasteries, and provide support for the argument thatSavine's estimate was too low.[4]

This study models any potential bias in recorded poor relief as a function of the characteristics of the data collectors themselves; such characteristics should be unrelated to the poor relief that the religious houses actually provided. We estimate the amount of charitable provision recorded in the *Valor* as a function of house and county characteristics, and our estimated bias function. Using our regression estimates, we then predict what the actual charitable provision would have been in the absence of bias. In other words, we use our parameter estimates to predict actual poor relief when our bias function is set at zero. This approach also allows us to test statistically whether the sociopolitical structure of the commissions should have made any difference in the analysis of this data source.

SOCIAL, POLITICAL, AND RELIGIOUS BACKGROUND Henry VIII's break with Rome entailed a suppression of the Roman Catholic monastic network. In 1535, the Crown was almost certainly well advanced in its plans to take possession of the monasteries' goods and lands. Between 1536 and 1540, almost every monastery in the country was dissolved, closely followed in the early 1540s by a majority of the hospitals, which had come to be seen as special types of religious house.[5]

The *Valor* was the outcome of a parliamentary bill of 1534—a year before the suppression--that procured for the Crown 10 percent of all ecclesiastical income. County commissioners assigned to collect the information from the religious houses were under instructions to deduct from the gross

income of each house--including its legally indentured rents, stipends, and pensions—all customary or legally indentured alms. The income net of charity was the sum upon which the religious houses were taxed.[6]

The alms recorded in the *Valor* represented an institution of monastic charity that had evolved over many centuries. By the early sixteenth century, it had become an effective system of social welfare. Distributions took place within access-controlled almonry courtyards usually on a daily or weekly basis. The recipients were often specified as the local poor -- that is, householders who could be identified as genuinely in need, sometimes by tokens that they carried to exchange for provisions. The *Valor* also includes the cost of providing indoor relief in hospitals (whether or not administered by a monastery), and monastic almonries.[7]

In theory, this detailed document should permit a quantitative assessment of its value from the commissioners' returned surveys. However, Savine's conclusion that the monasteries contributed up to 2.5 percent of their total income to charity is unrealistic for several reasons:

(1) He did not reduce gross income to net income before calculating the percentage of each house's poor relief (that is, he neglected rents, stipends, and pensions). (2) He discounted all of the central government's disallowances of charitable contributions, justifiable or not. (3) He inexplicably omitted forty-seven alms-giving monasteries from his analysis--two of which were among the most generous, Bury St. Edmunds Abbey (£379 1*s*. 1*d*.) and St. Mary's Abbey, York (£196 3*s*. 5*d*.)—and he

included all of the monasteries for which no poor relief is recorded. (4) Finally, he omitted almost all of the hospitals from his analysis.[8]

This last point highlights one of the main problems with taking the *Valor* evidence at face value. The *Valor* lists 277 houses and hospitals as providing no charitable provision at all, and a further 69 for which no details beyond net income survive. Many of the small, underendowed houses so listed probably had little surplus revenue available for charity after expenses, but at least some of the 152 institutions with an annual net income greater than £50 certainly did. For example, the legally binding cartulary entries at Edington Priory in Wiltshire and Newnham Priory in Bedfordshire attest to their charitable donations, as do the internal account rolls at the large, Benedictine Tavistock Abbey in Devon. Moreover, records for some of the lesser houses (those valued at under £200) dissolved in 1536 show that they made provision for sheltering the needy despite the absence of documentation in the *Valor*. Table 1 presents the total number of monasteries and hospitals by net value, as well the number of these houses and hospitals that the Valor lists as giving no poor relief. [9]

Table 1 Number of Religious Houses and Hospitals Recorded in the *Valor* as Not Providing Charity

Net Value	TOTAL NUMBER OF RELIGIOUS HOUSES	NUMBER OF RELIGIOUS HOUSES WITH ZERO POOR RELIEF	TOTAL NUMBER OF HOSPITALS	NUMBER OF HOSPITALS WITH ZERO POOR RELIEF
Under £50	114	88	66	37
£50-£99	98	55	7	2

£100-£149	70	35	4	1
£150-£199	45	18	5	1
£200-£299	62	20	2	0
£300-£499	48	11	3	1
£500-£999	35	7	2	0
>£1000	21	1	0	0
Total	493	235	89	42

NOTE Table does not include the sixty-nine houses in Berkshire, Cambridgeshire, Essex, Hertfordshire, Northumberland, Rutland and parts of Yorkshire for which no details of gross income or expenses are available.

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THE EFFECT OF THE VALOR COMMISSIONS ON THE POOR-RELIEF RECORDS The commissions that were to carry out the valuation of ecclesiastical income were appointed in 1535. They usually consisted of various members of the county gentry, as well as such local officials as justices of the peace. Apart from the appropriate bishop, clerical personnel were conspicuous by their absence. The commissioners owed their allegiance to the Crown and to Lord Protector Oliver Cromwell, who was most likely planning the Dissolution. Cromwell's central government machine was clearly keeping tight reins on the progress of the survey. Although his letters to the commissions did not survive, those written to him from the field indicate that he was demanding constant updates.[10]

The commissioners were keen to assure Cromwell that everything was being done to maximize profits for the Crown from taxation: "We have labored as much as we can for the king's profit, even

exceeding the interpretations of the statutes." Letters from Thomas Tempest and George Lawson, the Yorkshire commissioners, are particularly replete with such assurances. This attitude was bound to have an effect on the valuation of alms provision by the investigated religious houses and could well account for much of their under- or nil assessments.[11]

According to the *Valor*, only small amounts of monastic charity were dispersed in the counties of Staffordshire, Bedfordshire, and Devon. Staffordshire and Bedfordshire have only six houses between them (out of twenty-six) recorded as supplying something, albeit little, and three Devon houses and one hospital (out of nineteen) are credited with small amounts. However, a closer inspection of the evidence from Devon suggests that the reason for the apparent lack of monastic charitable provision in this county was due either to a misunderstanding or a deliberate failure to acknowledge the instructions from central government by the appointed commissioners. William Courtenay, one of the heads of the Devon commission, was involved in a conflict with two religious houses in Devon and Cornwall -- Hartland Abbey and Launceston Priory-- during the first half of 1535 while the survey was in progress. On Cromwell's authority, he received money for his part in the deposition of both heads of these houses, but was aggravated to find that Thomas Arundel had beaten him to a greater part of the goods and livestock of Hartland Abbey: "Since the last abbot was deposed he has conveyed away the plate of the house by means of Sir Thomas Arundell, and no corn is left. There are not four ploughs where there were six or seven. Of 1,000 sheep there is not 4, of 50 kine not 13, and of 100 other cattle not threescore."[12]

That Humphrey Prideaux and Hugh Yeo, justices of the peace and Courtenay's fellow survey commissioners, were refused entry into Hartland Abbey two months later, after Arundel's men had reinstated the old abbot and garrisoned the walls, indicates the level of antagonism that existed between the religious community and the commission in Devon. Evidently, Courtenay was attempting to install Cromwell's men as heads of houses. Furthermore, the Devon returns display a greater degree of stringency in regard to tax reprisals (and poor relief) than any other county. The exact date of the evaluation of Hartland Abbey is not known, but from a gross income of £306 3*s*. 2¼*d*. little more than £13 was allowed as reprisals, none of it for poor relief. Depending on the date of the survey, either Courtenay's commission was taking liberties against the recalcitrant abbot or Cromwell's/Courtenay's newly installed puppet-abbot was allowing the maximum amount of tax to be extracted from the Abbey. A similar refusal to allow reprisals is evident in all the Devon returns. An average of just over 5 percent of the gross income in Devon escaped taxation -- a lower proportion than for the rest of the country. At several of the Devon houses, the only reprisals permitted against tax were for the fees of the very commissioners who were conducting the survey. [13]

The implications for any assessment of the poor relief efforts of the Devon monasteries are evident. Contrary to instructions from the exchequer, the county commissioners were not honoring charitable provision. No other county commission was as thorough in its non-recording of monastic charity, though many other counties also had an unlikely number of houses recorded with no, or with very little, provision. For example, the *Valor* seems to indicate that certain parts of Lincolnshire, in

contrast to others, were entirely devoid of monastic charity. Closer inspection, however, reveals that the areas in question correspond to the deaneries that served as administrative units for certain members of the commission--Yarborough, Grimsby, Walshcroft, and Wraggoe. Hence, their apparent lack of poor relief is more than likely an artifact of under-recording by the six commissioners (out of a total of thirty-one appointed for the county) designated to survey these deaneries. Thornton Abbey, one of the wealthiest of them, enjoyed a net income of £594 17*s*. 2¾*d*., though, according to the *Valor*, it had no charitable obligations.[14]

Any assessment of the quantity of monastic poor relief derived from the *Valor* must first control, as much as possible, for the characteristics of the commissions that made the evaluations. This caveat does not necessarily imply negative control in every instance. The commissioners who belonged to the families who founded monasteries, and often still had relatives within them, were hardly likely to have been hostile to them. In the northern counties, the Pilgrimage of Grace, the only popular rebellion at least partly inspired by the Dissolution of the lesser houses, was instigated with the collusion of several members of the conservative gentry. Ultimately, however, the political environment of 1535 did not make for a commission sympathetic to the fair taxation of the religious houses.[15]

QUANTIFYING THE EVIDENCE FOR MONASTIC POOR RELIEF IN THE *VALOR* Table 2 shows the corrected analysis of the basic data for poor relief as recorded in the *Valor*. If the raised figure of 4.93 percent is applied to all houses in the *Valor* recorded as having a net income greater than £50 but

providing no poor relief, then a figure of £7,403 is yielded from the total monastic net income of £142 834 recorded in the *Valor*.[16]

Table 2 Basic Data Relevant to Poor Relief as Recorded in the *Valor*, Correcting Savine's Analysis

RELIGIOUS HOUSES RECORDED AS SUPPLYING POOR RELIEF	TOTAL POOR RELIEF RECORDED	AVERAGE POOR RELIEF PER RELIGIOUS HOUSE	AVERAGE PROPORTION OF POOR RELIEF PER RELIGIOUS HOUSE
306	£5218	£17.05	5.33%
With all zero poor relief houses worth >£50 added			
431	£5218	£12.11	4.93%

Submitting the data to these kinds of readjustment yields a proportion of monastic poor relief to income in 1535 that roughly doubles Savine's estimates. But these changes do not give proper attention to an important concern. The calculations in Table 2 correct for the methodology of Savine's figures and attempt to deal, at least to some extent, with the issue of underassessment, but this correction implies that the selected sample of houses -- those with non-zero poor relief or those with net incomes less than £50 -- have accurate records and that the excluded ones do not. As previously noted, it is likely that commissioner subjectivity had a substantial impact on the recording of all charitable reprisals, not just on those houses that were recorded as providing zero poor relief. To address more adequately

the potentially important issue of underassessment, we propose a statistical methodology that seeks to model underassessment and to correct for it.

First, assume that actual poor relief can be represented as:

$$a_i = X_i \beta_1 + \varepsilon_{1i} . \tag{1}$$

In addition, assume that the value of poor relief recorded in the *Valor* for each religious house can be represented as:

$$a_i^* = X_i \beta_1 + g(Z_i \gamma)\beta_2 + \varepsilon_{2i} , \tag{2}$$

where the X_i are house and county specific characteristics that should be associated with the actual level of poor relief of house *i*, the Z_i are house- and county-specific characteristics for house *i* that should be associated with the level of poor relief recorded in the *Valor*, but not actual poor relief. The function *g*( ) relates the various Z_i variables to some measure of bias. Finally, the ε_{1i} and ε_{2i} are iid, standard normal disturbances. Taking expected values in equation (2) and using the fact from equation (1) that $E(X_i \beta_1) = a_i$, we can write:

$$E(a_i^*) = E(X_i \beta_1) + E[g(Z_i \gamma)]\beta_2 = a_i + E[g(Z_i \gamma)\beta_2]. \tag{3}$$

This third equation shows that the expected value of a_i^* is actual poor relief, a_i, plus a function of characteristics that should not be associated with actual charitable provision, a bias function.

The idea behind our estimation strategy is to model $g(Z_i \gamma)$ and estimate the second equation. If our model specification is correct, $X_i \beta$ should provide the expected value of actual poor relief for each

individual religious house. In other words, we calculate an estimated value of poor relief in a situation where bias, $g(Z_i\ \gamma)$, is eliminated by setting it equal to zero. This estimation strategy also provides a test of the importance of bias. If the coefficient β_2 is not significantly different from zero, we can conclude that either our bias function is improperly specified or that little systematic bias appears in the recording of poor relief in the *Valor*.

SPECIFYING THE BIAS FUNCTION To proceed with the proposed estimation strategy, we need to develop a bias function and, hence, both a reasonable measure of bias and a set of variables that would influence recorded but not actual almsgiving. From the foregoing discussion, the attribution of zero poor relief in the *Valor* is a good house-level indicator of bias -- at least for those houses with a net income in excess of £50. Moreover, the internal evidence in the *Valor* and the recorded grant of commissions provide information about the size and the structure of the county-specific commissioning bodies that were responsible for auditing the religious houses. Unfortunately, since the names of the individual commissioners who evaluated particular houses are available only for Lincolnshire and a few other counties, this study must rely on general county-level measures for the characteristics of the auditors. Nevertheless, it seems highly unlikely that the size or structure of a particular commissioning body, or its tendency to undervalue other houses in the county, would be at all related to actual poor relief. Moreover, the measures used herein should be able to capture at least some of the variation in commissioners' subjectivity or their tendency to underrecord.[17]

The first stage is to estimate $g(Z_i\ \gamma)$ as a probit function relating county and commission-specific measures to whether or not a particular house was recorded in the *Valor* as giving zero poor relief. In this probit model, the dependent variable is a dichotomous indicator of zero-recorded poor relief. Parameter estimates with positive (negative) signs reflect a higher (lower) probability of zero poor relief when the associated variable takes on larger values. The regressors are only those characteristics that seem to bear no relation to actual charitable provision. If there were no systematic bias on the part of the commissioners, the parameter estimates associated with the *Z* variables -- the γ vector in our notation -- should be insignificant. Table 3 presents the set of *Z* variables chosen for our bias function, along with their definitions, means, and standard deviations.

Table 3 Definitions, Means and Standard Deviations of the Variables Used in the Bias Function

VARIABLE	DEFINITION	MEAN (STANDARD DEVIATION)
Diocesan bishop	=1 if the county's commission included a bishop	0.617 (0.49)
Titled (knights of the realm)	The number of titled individuals in the commission	7.043 (4.89)
Percent titled	The deviation of the percentage of titled people in a particular commission from the average percentage in all other commissions.	-.001 (0.11)
Commissioners	The deviation of the number of commissioners from the average number of commissioners in all other commissions.	8.093 (19.90)
Commissioners to houses	The ratio of the number of commissioners to the number of religious houses in the county	1.298 (0.95)
Percent zero	The percentage of other houses in the county with zero recorded poor relief	0.500 (0.23)

Other reprisals	The amount of other reprisals the house was allowed as a percentage of its gross income	0.184 (0.16)

The variables chosen include several measures of the characteristics of the commissioners assigned to each county. We consider the composition of the commissioning bodies by position and social class of the commissioners. Given that houses were not assessed by the whole commissioning body but evaluated by teams of four to six men, a measure of the ratio of commissioners to houses provides a rough probability of any one particularly hostile or particularly fair commissioner being assigned to assess a given house. An extremely hostile commissioner would have had the chance to underassess a few houses only if there were a large number of commissioners to be assigned. The county-level variables are the same for all religious houses within a particular county. Two house level measures -- the extent to which the group of commissioners underassessed all other religious houses in the same county and how much they allowed for other reprisals against taxation for any given house—are also included. These two measures may well be important indicators of bias, because commissioners intent on maximizing the Crown's taxable income would likely have underestimated other religious houses and other categories of nontaxable income. The percentage of other religious houses recorded as providing no charity may indicate the extent to which a commission was likely to undervalue in general, and the allowance of other reprisals against taxation should capture the general attitude of the particular set of surveyors assigned to a particular house.

An important issue in the attempt to estimate this bias function is the extent to which the chosen variable actually captures underassessment and not real poor relief. The measure of reprisals as a percentage of gross income may be a problematic regressor in the bias function, because it may somehow proxy for a house's income level -- its ability to provide poor relief at all. If the houses with the largest percentage of gross income earning reprisals were, on average, the houses with the highest incomes, it is possible that our reprisal measure is associated with high poor relief. However, houses that earmarked a large percentage of their gross income for other reprisals against taxation might not have had much income available for charity. The latter seems the more probable scenario; regression analysis (results not shown herein) demonstrates that, on average, low-income houses had a higher percentage of income allocated toward reprisals.

Because the association between reprisals and income level is negative, high levels of other reprisals as a percentage of gross income -- if capturing income effects in our probit specification -- would appear to make the level of poor relief lower and zero poor relief more likely. Hence, a positive coefficient would mean that houses with a high percentage of gross income allotted for other expenses would have less income to spend on charity, indicating that our measure of other reprisals is capturing ability to provide poor relief and should not be included in the bias function. On the other hand, if the level of reprisals is to be more associated with commissioner subjectivity, a negative correlation between other reprisals and low poor relief (or zero poor relief, as in our probit specification) would be more indicative of a general attitude on the part of the surveyors.

Another important consideration involving the bias function is that since those houses with a net value less than £50 were probably unable to make charitable donations, their zero assessments in the *Valor* may be valid. To allow for this possibility, our bias functions are estimated with the full sample of houses and a sample of only those houses with a net worth greater than £50 .. Results from both versions of the probit model are presented in Table 4.

Table 4 Parameter Estimates for the Probability of Zero Poor Relief, as a Function of Commission- and House-Specific Characteristics that Should not be Associated with Actual Poor Relief

VARIABLE NAME	FULL SAMPLE (*N*=582)	INCOMES OVER £50 (*N*=402)
Diocesan bishop	0.272 (1.87)	0.294 (1.51)
Titled (knight of the realm)	-0.088 (-4.99)	-0.137 (-4.71)
Percent titled	-2.083 (-2.67)	-3.301 (-2.72)
Commissioners	0.016 (5.46)	0.020 (3.81)
Commissioners to houses	-0.119 (-2.39)	-0.184 (-1.93)
Percent zero	1.345 (5.06)	1.653 (5.20)

Other reprisals	-1.386 (-3.43)	-1.903 (-3.36)
Log-likelihood	-358.97	-229.35

NOTE The *t*-statistics are presented in parentheses. Standard errors are corrected for clustering at the county-level.

Notice that the coefficients are all, with the exception of the bishop indicator and the average number of commissioners to houses (which is borderline significant), significantly related at conventional levels to having been recorded in the *Valor* as providing no poor relief -- a measure that we believe implies underassessment. In order to determine whether these variables are proxies for variations in house-level characteristics across counties, we estimated these probit functions using all of the commissioner and house-level characteristics (both the *Z* and the *X* variables). The coefficients on the *Z* variables were little changed by the inclusion of variables that should influence charitable provision. In other words, these coefficients are not likely to be picking up actual variations in house-level characteristics (at the county level) that should be associated with actual poor relief.[18]

In either sample, those houses audited by commissions with a higher percentage of titled members. were less likely to be recorded as zero–poor relief houses, though this relationship reverses when we estimate the model using the restricted, subsample.

Similarly, for the full sample, a larger than average number of commissioners is associated with a high probability of zero-recorded poor relief, whereas in the restricted sample the relationship reverses.[19]

All other relationships take the expected signs and remain consistent across samples. A high ratio of commissioners to houses reduces the probability of a house having been recorded as providing no charity. As mentioned above, this observation may reflect the fact that a high ratio of commissioners to religious houses reduces the probability that extremely biased individuals were involved in the assessment any one house. Moreover, the more houses within a given county that are underassessed, the higher the chances are that another house within that county will be underassessed as well. Finally, as expected, those commissions that were generous with other reprisals -- that is, they allowed a higher percentage of gross income to be written off as reprisals against taxation -- were less likely to allow no reprisals for charitable giving. This finding strengthens our hypothesis that the variable is capturing commissioner subjectivity and not operating as an income proxy --a source of actual poor relief -- that should be excluded from the bias function. The significance of these measures, which should in no way be related to actual charitable provision, provides convincing evidence of systematic measurement error in poor relief as reported in the *Valor*.

PREDICTING POOR RELIEF IN THE ABSENCE OF BIAS The second stage is to estimate equation (2), entering the predicted probabilities of zero poor relief from our probit specification as the $g(Z_i\ \gamma)$

function. We estimate equation (2) as an ordinary least squares (OLS) regression in which the standard errors are corrected for clustering at the county level. Once again, we estimate the model using both the full sample and a subsample restricted to only those houses worth more than £50..[20]

At first glance, this two-stage estimation technique appears similar to a technique developed by Heckman to correct for sample selection, but it differs in two important ways. First, we introduce the predicted probability of zero alms in the second stage of the estimation rather than as a function of it – the inverse Mill's ratio suggested by Heckman. Second, our bias function is not meant to correct for a truncation of the error term caused by the utilization of only non-zero observations. On the contrary, we posit that our predicted probability captures the level of bias on the part of the commissioning bodies and attempt to remove it from the estimated equation.[21]

Additional house- and county-level variables thought to be associated with the actual level of charitable provision are also included in this regression and are presented along with their definitions, means, and standard deviations (for the full sample) in Table 5. Urban areas usually have larger populations requiring assistance, and therefore face a higher demand for poor relief. Because houses located in urban areas during the early sixteenth century may also have experienced high levels of in-migration, and the resultant migrant poverty, they may have had to provide more charity than houses outside the cities. Similarly, houses located in counties with large cities may also have attracted a substantial volume of migration, along with a corresponding demand for charity. [22]

Other characteristics of the houses themselves -- the type of religious order, its location, or the gender of the inmates -- may have had an impact on how members prioritized spending. Houses with higher income should have been able to provide more poor relief than houses with lower income, and the ratio of a given house's income to the county average should indicate both excess need within the county and the relative importance of that house. Although income is undoubtedly an important determinant of the level of poor relief, indicators are included for the top and bottom 30 percent of the income distributions only. This strategy is meant to mitigate the impact of any undervaluing of income that may have occurred, as well as the impact of heteroskedascity -- a problem that arises with the use of more refined income categories.

Table 5 Definitions, Means, and Standard Deviations of Regressors Used in OLS Regression of Recorded Poor Relief

VARIABLE	DEFINITION	MEAN (STANDARD DEVIATION)
Urban	=1 if the religious house is located in an urban environment[a]	0.381 (0.49)
Large urban town	=1 if the religious house is located in one of the 15 largest urban areas[b]	0.069 (0.25)
Benedictine	=1 if the house is Benedictine	0.249 (0.43)
Female	=1 if the house is a female house	0.359 (0.48)
Large income	=1 if the value of the house is in the top 30% of the distribution	0.300 (0.46)
Small income	=1 if the value of the house falls in the lower 30% of the distribution	0.310 (0.46)

Urban towns in county	the number of large towns (defined as one of the 40 largest) in the county[c]	1.321 (1.08)
North	=1 if the county is located in the north of the country[d]	0.416 (0.49)
Income ratio	the ratio of the house's value to the average value of all other houses in the county.	1.180 (2.09)
Predicted value of no poor relief	as a function of commission characteristics only -- a proxy for bias	0.480 (0.19)

[a] The term *urban* has no distinct referent at this date. This study defines *urban environment* as any settlement with more than eighty taxpayers, as listed in the Lay Subsidy tax assessment of 1524/25. Settlements with fewer taxpayers that show evidence of urban characteristics (mainly according to the *VCH*) have also been taken into account. Because taxpayers do not necessarily represent all heads of household, household multipliers using subsidy lists are liable to error in terms of settlement size and function. Many locations with fewer than eighty taxpayers might have had higher populations than those with more than eighty taxpayers, and also displayed urban characteristics. But our working definition at least gives a viable grouping of urban and nonurban settlements for religious houses and hospitals recorded in the *Valor*. For the lay subsidy lists, see J. Sheail, *The Regional Distribution of Wealth in England as Indicated in the 1524-25 Lay Subsidy Returns* (1998). For the most recent discussion of English towns to 1540, see D. M. Palliser (ed.), *The Cambridge Urban History of Britain*. *I. 600-1540* (Cambridge, 2000).

[b] London and the fifteen largest provincial towns, by taxpayers, in the 1524/25 Lay Subsidy, also including Newcastle, which was not in the subsidy but probably the fourth largest town in the country, as well as York and Coventry, which were certainly underassessed.

[c] The forty largest towns from the 1524/25 Lay Subsidy plus Newcastle.

[d] Essentially the highland zone: Derbyshire, Shropshire, Linconshire, Wales, Yorkshire, Nottinghamshire, Cheshire, Lancashire, Cumbria, Westmorland, and Durham.

After estimating recorded poor relief as a function of these characteristics and the predicted probability of having been recorded as providing zero poor relief, we estimate the value of poor relief assuming that bias -- the predicted probability of no poor relief -- is set equal to zero. Taking into account that houses of small value may have been assessed correctly in the *Valor*, we also run the same regression using a restricted sample of just those houses worth more than £50 and predicted values from the restricted sample probit. When we predict actual poor relief in this restricted specification, we use recorded values for all excluded houses and predict poor relief for only those houses included in the sample. The full set of parameter estimates from the OLS regression equation are presented in Appendix Table A, but the parameter estimates for the bias functions are presented for both specifications in Table 6.

Table 6 Parameter Estimates Associating Bias Function with Recorded Poor Relief

	FULL SAMPLE PROBIT AND	RESTRICTED SAMPLE PROBIT

	FULL SAMPLE OLS REGRESSION	AND RESTRICTED SAMPLE OLS REGRESSION
Parameter Relating Bias Function to Recorded Poor Relief	-21.874 (-4.05)	-24. 669 (-3.85)

NOTE The regression specification takes county-level clustering into account.

The parameter estimate for the bias function is negative and significant at the 1 percent level in either specification. This parameter estimate provides additional evidence that commission characteristics and commissioner bias are likely to have influenced the recorded data. In the restricted-sample specification, our estimates imply that, ceteris paribus, a 10 percent increase in the predicted probability that a house will be recorded as having zero poor relief translates into a £2.4 deduction in recorded poor relief in the *Valor*. Average estimated poor relief when the probability of zero-recorded poor relief is set equal to zero and its percentage of net income is shown in Table 7.

Table 7 Average Predicted Poor Relief, Bias Function Set Equal to Zero, and Its Predicted Percentage of Monastic Income

	FULL SAMPLE PROBIT, AVERAGE PREDICTED POOR RELIEF PER HOUSE FOR THE FULL SAMPLE	RESTRICTED SAMPLE PROBIT, PREDICTED POOR RELIEF PER HOUSE FOR THE RESTRICTED SAMPLE AND RECORDED POOR RELIEF FOR THE EXCLUDED SAMPLE
Predicted average poor relief when bias [$g((Z_i\ \gamma)$] is set equal to zero	£19.13	£15.32
Predicted poor relief as a percentage of monastic income	8.96%	7.18%

NOTE Predicted values include forty-eight houses with missing data on actual poor relief.

Notice that our choice of sample does not seem to alter our predicted values appreciably. When the full sample is utilized, average charitable provision amounts to approximately £19 per house. This estimate drops to £15 when low-income houses are excluded from the analysis, and their data is assumed to have been accurately recorded. But regardless of the sample used, both estimates of charitable provision imply that the recorded poor relief is substantially underestimated in the *Valor*. Recall that by simply correcting Savine's analysis, charitable provision as a percentage of monastic income increased from 2.5 percent to nearly 5 percent. Attempting to model and correct for systematic undervaluation increases the estimate a further 2 to 4 percent, depending on the sample used. Because the lower-income houses were not likely to have provided much charity, the restricted sample estimates are probably more accurate; the full-sample results provide an upper bound rather than a realistic estimate. Using these models, the total estimated national sum of monastic/hospital poor relief from the *Valor* falls between £10,216 and 13,265.[23]

Despite this ample evidence of inaccuracy in the *Valor*'s data, there are still reasons to interpret the results of this study with caution. First, our model specification assumes that a record of zero provision provides an adequate measure of bias and that the variables selected pertain to recorded but not actual poor relief. If the regressors in the bias function are somehow capturing county- or house-level characteristics that are associated with actual poor relief, our model is eliminating too much bias.

Our choice of zero-recorded poor relief as an indicator of bias implies that houses with a higher probability of no poor relief were also subject to a higher level of under-recording. This underlying relationship cannot be verified with the data at hand. Given that the quality of some of the data has been brought into question, other data in the Valor may be similarly flawed. The religious houses assessed in the *Valor*, like those in Lancashire, were probably as eager to undervalue their incomes as the assessors were to undervalue their reprisals against taxation. Since this study attempts to correct for the undervaluation of almsgiving and not the undervaluation of income, the estimated poor relief as a percentage of income may be biased upward. Yet, even with these caveats in mind, both contextual and empirical evidence support our hypothesis of asystematic measurement error in the *Valor* data that tends to underestimate poor relief.

Previous historiography on this subject has relied too strongly on Savine's estimate that religious houses before the Dissolution devoted about.2.5 percent of their income to poor relief. But Savine excluded important houses from his analysis, and he failed to use a proper measure of monastic income. By including all relevant religious houses and hospitals, and by using the more appropriate measure of net income (before reprisals of poor relief) rather than gross income, this study roughly doubles Savine's calculations. This study also models commissioner bias and removes it from the estimates of charitable provision. In this context, bias is defined as the predicted probability of having no poor relief recorded in the *Valor*, as a function of commissioner and county characteristics that appear to bear no relation to

actual charitable provision. Estimating predicted poor relief when bias is zero is the way to achieve the greatest accuracy.

Both stages of the analysis tend to confirm that bias on the part of the commissioners influenced the recorded levels of poor relief. The parameters in the probit equation are almost all significant, indicating the importance of the commissioners' characteristics. Likewise, the parameter that associates bias (as a function of only those characteristics believed not to be related to actual almsgiving) with recorded poor relief is negative and significant at the 1 percent level, indicating that bias is neither unimportant nor random in these data. Setting the probability of zero poor relief to zero produces a more realistic value of relief. Our estimates suggest that actual charitable provision on the eve of the Dissolution amounted to about 7 percent of monastic income -- a figure far higher than the one calculated by Savine and subsequently perpetuated in the literature.

This evidence of systematic underassessment of charitable provision in the *Valor* is significant. It means that the Dissolution was more disruptive to the lives of the English poor than Savine's figures would indicate, especially since the government was unable, or unwilling, to find a substitute for this source of aid for some time. Monastic relief was by no means negligible; its loss must have been a great hardship for those who had come to rely on it.

APPENDIX: PARAMETER ESTIMATES FROM THE OLS REGRESSION OF RECORDED POOR RELIEF IN THE *VALOR*

REGRESSOR	FULL SAMPLE MODEL	RESTRICTED SAMPLE MODEL

Urban	-0.349 (-0.20)	-0.067 (-0.03) -
Large urban town	12.864 (1.54)	13.685 (1.10) -
Benedictine	2.540 (1.42)	3.534 (1.57) -
Female	0.319 (0.25)	-1.468 (-0.85) -
Large income	-2.253 (-0.60)	-0.294 (-0.06) -
Hospital	9.889 (2.55)	25.365 (2.39) -
Small income	-2.385 (-1.01)	2.716 (1.42) -
Urban towns in the county	0.419 (0.60)	0.342 (0.36)
North	-0.148 (-0.09)	-1.073 (-0.43)
Income ratio	8.370 (4.03)	8.418 (3.69)
Predicted probability of zero relief	-21.874 (-4.05)	-24.669 (-3.86)
Constant	7.521 (2.66)	3.441 (0.906)
N	582	402

R^2	0.49	0.51

NOTE The *t*-statistics are reported in parentheses. Standard errors are corrected for clustering at the county-level.

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Notes:

[1]E. M. Leonard, *The Early History of English Poor Relief* (Cambridge, 1900), 18, followed the ideas promulgated by William Ashley, *An Introduction to English Economic History and Theory* (London, 1925; orig. pub. 1893), II, 311-324.

[2]Alexander Savine, *English Monasteries on the Eve of the Dissolution* (Oxford, 1909), 239; David Knowles, *The Religious Orders in England* (Cambridge, 1948-1959), III, 264-266. Those writers explicitly accepting Savine's figure include R. H. Snape, *Monastic Finances in the Later Middle Ages* (Cambridge, 1926), 115; Sidney Webb and Beatrice Webb, *English Poor Law History: The Old Poor Law* (London, 1927; repr. 1963), 17; Geoffrey Baskerville, *English Monks and the Suppression of the Monasteries* (London, 1937), 31; W. K. Jordan, *Philanthropy in England 1480-1660* (London, 1959), 59; A. G. Dickens, *The English Reformation* (London, 1964), 56; G. W. O. Woodward, *The Dissolution of the Monasteries* (London, 1966), 21-23; Christopher Haigh, *The Last Days of the Lancashire Monasteries and the Pilgrimage of Grace* (Manchester, 1969), 53-54; W. R. D. Jones, *The Tudor Commonwealth 1529-1559* (London 1970), 118; Joyce Youings,

Sixteenth-Century England (London, 1984), 256; Christopher Dyer, *Standards of Living in the Later Middle Ages: Social Change in England c. 1200-1520* (Cambridge, 1989; rev. ed. 1998), 240-241.

[3]Barbara Harvey, *Living and Dying in England 1100-1540: The Monastic Experience* (Oxford, 1993), 7-33, 214-215. The early modern historians include Alan L. Beier, *The Problem of the Poor in Tudor and Early Stuart England* (London, 1983), 19-20; Felicity Heal, *Hospitality in Early Modern England* (Oxford, 1990), 228-246. Paul Slack, *Poverty and Policy in Tudor and Stuart England* (London, 1988), 13. An extended historiographical discussion can be found in Neil S. Rushton, "Monastic Charitable Provision in Tudor England: Quantifying and Qualifying Poor Relief in the Sixteenth Century," *Continuity and Change* (forthcoming).

[4]The *Valor Ecclesiasticus* is held in the Public Record Office, London, under the class mark PRO E 344/1 -- E 344/26. The English and Welsh returns were printed by the Record Commission in J. Caley and J. Hunter (eds.), *Valor Ecclesiasticus temp. Henry VIII, auctoritate regia institutis* (London, 1810-1834), 6v. For under-recording in Lancashire, see Savine, *English Monasteries*, 45-47; Haigh, *Reformation and Resistance in Tudor Lancashire* (Cambridge, 1975), 120-121.

[5]For the chronology of Dissolution, see Knowles, *Religious Orders*, III, 198-205, 268-290.

[6]26 Henry VIII c. 3; *Statutes of the Realm* (London, 1810-1828), III, 493-499. The instructions to the commissioners are at PRO E/344/1, fol. 1.

[7]For the use of tokens to identify legitimate claimants of poor relief see, William J. Courtenay, "Token Coinage and the Administration of Poor Relief During the Later Middle Ages," *Journal of Interdisciplinary History*, III (1973), 275-295.

[8] The *Valor* records only almsgiving from ordinary income. It does not include any details about refectory leftovers or old clothing and shoes donated to the poor, which could sometimes be substantial, but no quantifiable records exist. See, Knowles, *Religious Orders*, III, 265; Harvey, *Living and Dying*, 10-15. Savine, *English Monasteries*, 227-242. This study's calculations of poor relief as a percentage of income do not include the rents, stipends, and pensions permitted as reprisals by the commissioners in gross income. The percentage is obtained before subtracting the poor relief. This method allows for a percentage outlay on poor relief from the "real" income of the monasteries and hospitals, rather than the crude gross income as calculated by Savine. A complete analysis of the redistribution of early sixteenth-century wealth would more properly take the gross income numerator. But the object of this paper is to arrive at a percentage of monastic poor relief to "real income," with the actual money totals of relief unaffected. For Bury St. Edmunds Abbey, see *Valor*, III, 459-65; for St. Mary's Abbey, York, see *Valor*, V, 4-9.

[9] Most of the thirty-eight hospitals with small endowments probably performed some form of limited service to the poor and sick that was not registered in the *Valor*. For Benedictine Tavistock Abbey, see, *Valor*, II, 381-383; H. P. R. Finberg, *Tavistock Abbey: A Study in the Social and Economic*

History of Devon (New York, 1969), 226-227, 288. For the cartularies and 1536 visitation, see, Rushton, "Monastic Charitable Provision."

[10]For the commissions, see J. S. Brewer, J. Gardiner, and R. H. Brodie (eds.), *Letters and Papers Foreign and Domestic of the Reign of Henry VIII* (London, 1862-1932) [hereinafter *Letters and Papers*], VIII, no. 149, 49-52. For the commissions as part of the Dissolution process, see Knowles, *Religious Orders*, III, 268-290. For the letters to Cromwell, see Savine, *English Monasteries*, 5-8.

[11] *Letters and Papers*, VIII, nos. 551 and 945; IX, no.383. The amendments made by the central exchequer to the returned evaluations also demonstrate the desire of the government to keep charity deductions to a minimum.

[12]*Valor*, II, 289-391 (Devon); III, 99-152 (Staffordshire); IV, 187-214 (Bedfordshire); *Letters and Papers*, VIII, no. 569; Courtenay to Cromwell, April 20,1535. For the correspondence concerning Launceston Priory, see *Letters and Papers*, VIII, nos. 224, 690.

[13]*Letters and Papers*, VIII, no. 979. For Newnham Priory, Polsloe Priory, and Dunkeswell Abbey, see *Valor*, II, 301-333.

[14]The Lincolnshire entries are at *Valor*, IV, 1-143. For Thornton Abbey, see *Valor*, IV, 73-74.

[15]Knowles, *Religious Orders*, III, 320-335; Haigh, *Last Days of the Lancashire Monasteries*, 61-85; C. S. L. Davies, "Popular Religion and the Pilgrimage of Grace," in A. Fletcher and J. Stevenson (eds.), *Order and Disorder in Early Modern England* (Cambridge, 1985), 58-91; A. W. Shaw, "The

Involvement of the Religious Orders in the Northern Risings of 1536/7: Compulsion or Desire," *Downside Review*, CCCCVII (1999), 89-114.

[16]This calculation of total monastic net income from the *Valor* (inclusive of *all* houses) includes the £5218 in known reprised poor relief. Savine's total monastic income in the *Valor* of £136, 362 excludes the income from most hospitals (*English Monasteries*, 98).

[17]The grant of commissions is recorded in *Letters and Papers*, VIII, no. 149, 49-52.

[18] In addition, we estimated several specifications of the bias function. The results presented here are robust to both functional form and the set of regressors utilized.

[19]For the familial ties between monasteries and society, see Haigh, *Last Days of the Lancashire Monasteries*, 58-59.

[20]For a full discussion of the importance of these variables, see Rushton "Monastic Charitable Provision."

[21] See James J. Heckman, "Sample Selection Bias as a Specification Error," *Econometrica* (1979) 153-161.

[22]For urban immigration patterns before 1540, see Caroline M. Barron, "London 1300-1540," in Palliser (ed.), *The Cambridge Urban History of Britain*. *I. 600-1540* (Cambridge, 2000), 399-403; Jennifer Kermode, "The Greater Towns 1300-1540," *ibid*., 458-459; Christopher Dyer, "Small Towns 1270-1540," *ibid*., 523.

[23]This study's calculation of the net total income of *all* religious houses and hospitals from the *Valor* is 6.91 percent to 8.96 percent of [(total net monastic/hospital income) £142,834 + (recorded poor relief) £5218], or £148,052. Savine's, with its limitations noted earlier, is £136, 362.