Common Rights in Land in England, 1475-1839[1]

Gregory Clark and Anthony Clark

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We estimate the amount of common land in England from 1475 to 1839 using a sample of charity land, and compare this to the amounts of common land enclosed by Parliamentary Acts. We find little common in the years 1575-1725 beyond what the records of Parliamentary enclosure would suggest. The estimated share of common land in England even in 1600 was thus only 26 percent. And only four percent of land in 1600 was common with free access to all the community. Most "common" land even in 1600 was controlled and regulated. By 1600 truly communal property existed only on lands of marginal value.

Historians have long debated the timing and the mechanism of enclosure of common land in England. They have been interested in the extent of common in part as an index of the modernization of English agriculture, and in part out of concern for the effects of enclosure on the landless rural poor who could get some sustenance from free access common land. "Common" here refers to any land subject to some form of common control. Thus common includes open field arable and meadow that were common for only part of the year, stinted pastures, and "waste."[2] "Waste" was the only type of land that was common in the modern sense of having free access, and which thus the landless could utilize.[3] The other "common" in England was still private property in the sense that access to these common lands was strictly limited to those who owned the rights.

The Parliamentary enclosure movement is estimated to have ended common rights on 22 percent of all land in the years after 1750. But historians believe much more land was common in

[1] The authors thank Robert Allen, John Chapman, Leigh Shaw-Taylor, and Michael Turner for comments and suggestions, without implicating them in the conclusions of the paper in any way. The authors thank Brian Harris for excellent research assistance.

[2] While most common land was physically open, there were also forms of common where the land was fenced as in lammas land and michaelmas land.

the middle ages. Gray noted of medieval England, for example, "Of enclosed land held in severalty...there was little."[4] When and how was this other common enclosed? Did it occur alongside Parliamentary enclosure, before that in the seventeenth century, or even earlier in the late middle ages? And how much access to land was lost by the poor in this process?

John Chapman and Sylvia Seeliger have recently given fresh impetus to the view, expressed earlier by Gilbert Slater, Chambers and Mingay, and Donald McCloskey, that private agreements and piecemeal methods enclosed substantial amounts of land in the years after 1750, and that consequently much more than 22 percent of land was common in 1750.[5] In a parish by parish study of Sussex Chapman and Seelinger find that while there were only 32 Parliamentary enclosures, at least 101 "open field systems" existed in 1700, so that Parliament accounted for less than one third of all Sussex enclosures. Of the 69 systems enclosed by private means, at least 55 – and perhaps all 69 - survived until at least 1750. Thus private enclosure in Sussex seems to have occurred not before Parliamentary enclosure, but instead along with it. In only four of these 69 cases is there evidence of a formal agreement ending the system. In others the system was ended by one person buying or renting all the land, or by piecemeal enclosure of individual strips and blocks of strips with the tacit consent of the owners of the common rights. There is little evidence, however, on the physical extent of these open-fields not enclosed by Parliament. Some of them may have been quite small by 1700. Thus when Clapham open field was enclosed by agreement in 1811 it covered only 19 acres. Earlier in 1773 it covered 38 acres, but this is still a

[3]Supposedly in some cases even access to the waste was stinted.

[4] Gray , English Field Systems, p. 8.

[5] See for example, Slater, English Peasantry, Chambers and Mingay, Agricultural Revolution, p. 78, McCloskey, "Enclosure," p. 15. McCloskey estimates as much was enclosed by private agreement as by Parliamentary means.

very small amount of land in a parish whose total area was 1,794 acres.[6] In Hampshire Chapman and Seeliger find more evidence of formal private agreements. But while roughly 15.4 percent of Hampshire was enclosed by Parliament, only 2.8 percent was enclosed by these formal private agreements. Chapman and Seeliger thus conclude "it seems highly likely that the neglected formal agreements are themselves merely the tip of a far greater hidden iceberg of eighteenth- and nineteenth-century enclosures."[7]

Wordie, in contrast, argued that enclosure after 1750 was largely by Parliamentary means, and that consequently the seventeenth century was the great age of enclosure.[8] Robert Allen find support for Wordie's views in the south Midlands. Looking at a variety of sources - Parliamentary Enclosure awards, terriers and Chancery decrees - in the heart of the open-field area of the South Midlands he finds that after 1750 96 percent of enclosure was by Parliamentary act. Allen's chronology also suggests that in the South Midlands 77-82 percent of land was common in 1575, compared to 55 percent in 1750. There was thus extensive enclosure in the south Midlands in the seventeenth century, though still less than half as much than Parliament later enclosed. Similarly Hodgson found in Durham that while Parliamentary procedures enclosed 106,785 acres after 1750, private agreements and Chancery decrees enclosed only 3,964 acres. However, between 1551 and 1750 private agreements and Chancery decrees enclosed 74,999 acres. Again while only two thirds of what was enclosed later this represents a large enclosure movement in the seventeenth century.[9]

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[6] Chapman and Seeliger, "Open Fields," p. 90.
[7] Chapman and Seeliger, "Formal Agreements," p. 44.
[8] Wordie, "Chronology."
[9] Allen, Enclosure. Hodgson, "Progress." Beresford used the terriers of glebe lands in Leicester, Buckingham and Yorkshire as another way to study enclosure in the years 1600-1730. He finds evidence of such activity, but his method makes is hard to derive any quantitative assessment of its importance.

Thus the timing of enclosure is unresolved. The conclusion of Chapman and Seeliger that piecemeal enclosure, leaving no documentary trace, was the most important source of enclosure in Sussex suggests that it will be very difficult to locate enclosure. Given the costs of trying to reconstruct the enclosure history of particular counties or areas, and the difficulty of trying to measure the amount of common land parish by parish at any given date such as 1700, there seems little prospect that the issue will be resolved within the lifetimes of any of the participants.

In this paper we try a new approach to the problem. Instead of attempting to measure acre by acre the amount of common land at any date in the 26.5 million acres of agricultural land in England, we construct samples of individual plots of land by half centuries - 1575-1624, 1625-74, and so on – and estimate the fractions of land which was common from these samples.[10] While such samples reveal little about the enclosure history of any specific place or even any county, it is easy to show that even a small random sample will typically reveal with close accuracy the proportion of all land that was common in any epoch.

THE SAMPLING METHOD

Suppose we had a random sample of N plots of land in 1700 in England, where each plot was observed to be either common or enclosed. Suppose that in fact a fraction p of all plots were common land. Then the best estimate of the mean fraction of land that was common in the country as a whole would be p, average the fraction of the plots observed to be common in the sample. But more importantly the variance of this estimate of p around the true value is:

$$\mathrm{Var}(p - p) = \frac{p(1 ? p)}{N}$$

[10] The land area is the area of farms, nursery and wood from the 1888 agricultural statistics.

Since we do not directly observe p we also have to estimate this variance, and the best estimate of the standard error of our estimate around the true value is:

$$\sqrt{\frac{p(1 ? p)}{(N ? 1)}} \qquad (1)$$

This implies that even small numbers of random observations on the enclosure status of plots can produce relatively accurate information on the fraction of the land that was common as a whole. Suppose for example that the fraction of the sample observed to be common is 0.3, and samples of sizes 50, 100, 300, 600, 1000, and 1500 plots had been obtained. Then based on the above formula for the standard error we could conclude for each sample size that the true fraction of common land lay within the bounds shown in table 1 99 percent of the time. Table 1 implies that with a truly random sample as small as 600 plots of land we should be able to estimate the fraction of land in England open in any epoch to within a 5 percent margin with 99 percent confidence that the true fraction falls in that interval. With as few as 300 observations we should still be able to estimate the percentage to within 7 percent with the same degree of accuracy.

The sample of plots we use below, however, is not random. It over samples some counties. Within counties it over samples from parishes with greater population densities and from parishes that had Parliamentary enclosures. The solution to the problem of over sampling is to calculate the average fraction of land common in each period as a weighted average of the fraction common on each plot observed, where the plots from areas sampled less frequently get correspondingly greater weights to compensate for the under sampling. The simple principal of the re weighting is that observations on each type of land should have a weight in calculating the average fraction common that is equal to the share of that type of land in the population.

Thus if $fcom_{it}$ is the fraction of the land in any plot i that is common we can construct a measure of the average fraction of land common in the country as

$$fcom = \sum_i \omega_i fcom_i$$

where ω_i is a weight for each observation designed to correct for over sampling. ω_i will be inversely proportional to the probability that land of any particular type is included in the sample. The weights are constructed so that

$$\sum_i \omega_i = 1$$

The cost of adopting such a weighting is that it increases the potential sampling error associated with the estimate of the overall fraction of land common. The variance of the estimated fraction common will be

$$Var(fcom) = \sum_i \omega_i^2 Var(fcom_i)$$

This variance will be minimized when the ω_i for each observation are the same. The more unequal the weights the higher the variance.

The plots in our sample are not of equal size. Thus of the 1,594 observations circa 1700, the plots size ranged from 0.04 acres to 1,620 acres. Another way to estimate the average fraction common would be to sum up the common area across plots in each period and divide it by the total area of all plots. Thus

$$fcom = \frac{\sum com_i}{\sum area_i}$$

where com_i is the area of common land in plot *i*, and $area_i$ is the total area of plot *i*, and This estimator, however, gives a huge weight to large plots and almost no weight to the smallest plots. If large plots and small plots tend to have the same fraction common then such an average will be expected to be the same as the one we obtain, but will have a much higher sampling error. We show below that the fraction of a plot observed to be common is independent of the plot size. Thus the average percent common in 1700 by our preferred method is 26.3, and by the alternative 27.7.[11]

CHARITY LAND HOLDINGS

Our sample of observations on the amount of common is 18,943 descriptions of plots of charity land given some time in the years 1475-1839. The core of this sample of plot descriptions was constructed as part of a project measuring both average rents in England in these years, and the rent gains that came from enclosure.[12] But once constructed it became clear that the sample could serve also to measure the timing of enclosure.

The information we have on charity land was generated mainly from the published reports of the detailed and elaborate investigation into the activities of charitable trusts in England and Wales called The Charity Commission or The Brougham Commission that Parliament launched in 1818. This initial inquiry eventually lasted for nineteen years, and the 32 reports published contain 26,987 pages of material. 28,880 endowments for charity were reported upon. These charities in 1818-37 held 443,000 acres of land, about 2 percent of the agricultural land in England and

[11] If smaller plots have a higher variance of percent common then it would make sense to give larger plots more weight in making an estimate of the average share common. But in 1700 the standard deviation of the fraction common on the smallest plots, those under 5 acres, was 0.42, which was also the standard deviation of the largest plots, those over 50 acres.

[12] See Clark, "Commons Sense."

Wales.[13] The commissioners would typically report on the current status of land owned by charities. But they would often give some history of the land also, because they were interested in checking that the assets had been preserved over time, and because they needed to check what the intention of the donor was. Thus they often report details about land from the will of the donor, or details of the property evident from legal documents created to effect the land transfer.

The procedures of the board in investigating each specific charity were generally the same and were as John Wrottesley, one of the commissioners, described in 1835:

> Having taken the abstract of the original deed or will, the first point is to trace the legal estate into the then existing trustees, and that completes one part of the report. Then we examine into the property, the tenants, the rents at which the property is let....and also examine the leases of the property. The next point is the application of the revenue.[14]

Land described with terms such as "a close," "inclosed," "a croft," "a field," or "a paddock," we counted as enclosed.[15] Hence we appeal to the fact that while common land was land subject to any kind of common rights in England common land was overwhelmingly unfenced or "open" to identify "enclosed" land. Thus we counted the following plots recorded in the ninth report as enclosed: "a close, containing, by estimation, two acres" (1670 deed, p. 8), "a field, called Wester Twitchen, containing, by estimation, three acres and a half" (1822 description, p. 39), "a pasture called Ridgeway, inclosed among other lands of Mr. Pettin," (1721 survey, p. 479), "all those lands and grounds lying in sundry closes" (1622 indenture, p. 192). As can be seen from the sample of descriptions of land in the seventeenth century from the ninth report of the charity

[13]See Clark, "Reports."
[14]Quoted in Tompson, Charity Commission, p. 136.

commissioners reproduced in table 8 in the appendix the great majority of land counted as enclosed was described explicitly as "closes." Large single plots of ground with names were also counted as enclosed even if not explicitly called a close or a field. Thus "all that parcel of land, commonly called Ellis Ridings, alias Rudd's, containing by estimation 12 acres" (1668 indenture, p. 312) was classified as enclosed.

Land described with such terms as "common land," "land in the common field," "land in the common meadow," "a cowgate," "a common right" we classified as common. Thus the following plots from the ninth report were classified as common: "nine acres of land, lying in the common fields of Stanwell" (1670 indenture, p. 312), "a meadow, lying in the common mead of Sturminster" (1721 survey, p. 478). Land described using more ambiguous descriptions such as "an acre of land situate in South Field" (1649 indenture, p. 222) was also classified as common, as was land measured in units typical of the open fields (yardlands, oxgangs). Where common grazing land was measured in "cowgates," "beastgates," cattlegates," "horsegates," and "sheepgates" we get estimates of the average size of these units in acres from the cases where such land was converted into private holdings on enclosure.[16]

We also identify as a separate category land that was "common waste", defined as common land which was used only for rough grazing and fuel gathering, and where generally all members of the village had access. This is identified for plots differently than was regular common, because it would not be listed in the description of lands in indentures or deeds before an enclosure of the waste occurred. To identify this common waste we use the fact that we are able to follow the

[15] Land described through use such as an "orchard" or "garden" was counted as enclosed as long as it was a minor share of the area of a holding.

[16] In lowland England there are 17 cases where the area of a cowgate is thus given in the charity records, averaging 1.31 acres, while for upland England in 22 cases the average area of the cowgate was 2.34 acres. Almost all the sheepgates were from the upland areas, and in eight cases overall the average area was 1.27 acres.

history of plots from their original purchase or donation to a later observation some time after 1818. Common waste shows up in these later observations as land that was added to plots upon an enclosure. When stinted pastures or waste was enclosed the lord of the manor typically received some of the land in compensation for his rights over the soil. The actual share received was a matter of negotiation, but has been quoted as typically 1/12 to 1/16 of the land. To correct for this missing area we have inflated the areas of common pasture and common waste recorded in charity plots by 7.8 percent when estimating the area of common.

Table 9 in the appendix shows how each plot in Devon and Middlesex in the ninth report of the Charity Commission where details were given for seventeenth century was classified when the data was coded. For the 34 plots described in sufficient detail the fraction of common land is 0.53. While slightly tighter or looser standards on coding the descriptions would change this by a point or two, the amount of error introduced here by the ambiguities of coding will not be enormous. The enclosed nature of land in Devon and its common nature in Middlesex shines through.

As can be seen in table 9 some plots both in the early years and in the nineteenth century are described with insufficient detail to calculate the share of the land that is common. Mainly this is because the land is described in very terse ways: “lands,” “10 acres of land,” “a messuage and tenement,” “a farm,” “parcels of land.” As table 2 shows the fraction of land lacking enclosure information is somewhat greater in earlier years. By the early nineteenth century only 21 percent of plots are of uncertain enclosure status, but before 1800 this is 26 percent. The reason for this decline seems mainly to be that over time the deeds, indentures, and wills describing the land when first acquired were more likely to have been lost. But the number of plots without specific descriptions also varies by region. Thus in the open-field region of the Midlands plot descriptions

generally include their enclosure status. Even in the seventeenth century we have information on the enclosure status of 84 percent of the plots in the Midlands. In the South East in contrast, particularly in East Anglia, the fraction of plots whose enclosure status is uncertain is higher.

As long as common and enclosed land is equally likely not to have its nature identified then the missing observations do not create a difficulty for the sampling method used here. Fortunately we can show that the missing plots must have the same amount of common land as the included plots using the relative rental values of land whose enclosure status is described versus that where the status is unknown. All through the period 1600 to 1839 common land rented on average for about 33 percent less per acre than enclosed land, as is shown in Clark, "Commons Sense". We thus estimate the coefficients of the regression

$$Log(RENT\ PER\ ACRE) = ?_0 Log(AREA) + ?_1 PDEN + ?_2 FCOM + ?_3 DNINFO_{1600}$$
$$? ?_4 DNINFO_{1750} ? ?_5 DNINFO_{1800} ? \sum_i DCNTY_i ? \sum_t DDEC_t$$

AREA is the plot area, PDEN the parish population density in 1801, FCOM is the fraction of a plot which was common land (set to 0 if the common status is unknown), $DNINFO_{1600}$ is an indicator variable which is 1 if the plot has an uncertain enclosure status between 1600 and 1749, and $DNINFO_{1750}$ and $DNINFO_{1800}$ are similar indicators for the years 1750 to 1799 and 1800 to 1839. DCNTY is a dummy variable for each county, and DDEC is a dummy variable for each decade. The variables AREA, PDEN, DCNTY and DDEC are just controls for the variation of rents across decades, counties, parishes, and plot types.

The estimated value of $?_2$, the coefficient on FCOM, is -0.39, implying that common land rents for only 67 percent of the value of enclosed land. If the land whose enclosure status was unknown was all common in 1600, then the estimated value of $?_3$ should also be -.39. In fact the

estimated values of γ_3, γ_4, and γ_5 are -0.11, -0.11, and -0.03. This implies that the share of the land which was of uncertain enclosure status that was common in each period was as is shown in Table 3. We shall see below that these numbers are consistent with the estimated fractions common of the plots that we can observe directly. In the years 1600-49, and 1800-39 the fraction of the missing plots estimated as common is very close to the fraction for the plots whose enclosure status is observed. In 1750-99 the fraction of the missing plots estimated to be common is higher than for the observed, but not significantly so. The missing observations are not going to bias the sample in any important way.

CHARITY LAND VERSUS LAND IN GENERAL

If our samples of charity land are to reveal the proportion of the country that was common at various dates then it first has to be the case that charity land behaved like private land with respect to is likelihood of having common. Since the controllers of charity land were potentially operating under different incentives and legal constraints than private land owners, perhaps charity land enclosed more slowly than private land through private agreements and piecemeal enclosure. John Chapman has argued on this basis that charity land was less likely to undergo private non-parliamentary enclosure than land in general.[17] One test of this hypothesis is how much common land was observed on charity properties by the time the Parliamentary Enclosure movement was drawing to a close. If charities were laggards in private enclosure, and as much as 30 to 40 percent of land was enclosed by private means between 1500 and 1825 as is generally believed, then there should be a lot of common land observed on charity plots in the years after 1825. We do not find this. Indeed as Table 6 below shows for the years 1825-39 the amount of common land observed on charity plots is only 2.3 percent more than would be expected from the records

of Parliamentary enclosure. If we restrict ourselves to parishes that had no Parliamentary enclosure, where the alleged inability of charities to enclose privately would matter most, we find only 4.8 percent of land was still common on charity plots in 1825-39.[18] If there was much more common land in these parishes in 1600 then charities must also have been enclosing a great deal of land by private agreements.

Similarly the hypothesis of slower enclosure on charity land would not affect the status of the land when it was first willed to the charity or purchased by the charity. Thus also we check below whether our results on the timing of enclosure have been affected by the potentially different incentives and constraints of charity trustees by looking at a sub sample of observations on land which had just entering the control of a charity, whether by will or purchase. We have no reason to expect this land to be any different from other private land. We show that this sub sample gives the same results as our larger sample.

CORRECTING BIASES IN THE RAW CHARITY SAMPLE

The sample of charity land is non random in five major ways. But only three of these require any correction in estimating the fraction of common land. First multiple observations occur more frequently in a single parish than would be expected by chance, both because records were preserved in some parishes and not others, and because a single charity would often own multiple pieces of land in the same place. We correct for this by estimating for each parish and period the fraction of land common (as an unweighted average of the fraction of each plot that was common) and counting each of these averages as a single parish observation. Thus the 97 plots in

[17] See Chapman, "Charities" and Clark, "In Defense."

[18] As we show below some of this common land in parishes with no recorded Parliamentary Enclosure was actually enclosed by Parliamentary Act.

Long Sutton in Lincoln in 1825-39 which on average were 1% common get counted as one observation along with the one plot in Bilsby in Lincoln in 1825-39 which was all common.

Second some areas are underrepresented. Figure 1, for example, shows the location of observations by parish in the years 1675-1724. As can be seen even from the figure the data under samples from the north, the south west, and the south central. At the extreme Middlesex with an agricultural area of 117,000 acres in 1888 provides 50 observations, while Northumberland with an area of 761,000 acres provides only 3 observations. Figure 2 shows similar data for 1575-1624. Again the under sampling of the north is very evident. We correct for this by giving observations in each county a weight proportional to the county agricultural area in 1888. Thus northern and western observations are given a higher than average weight.

Third parishes that had Parliamentary enclosures were sampled more heavily than their areas would imply. Thus 57 percent of land in England was in parishes that had a Parliamentary enclosure, but fully 72 percent of the plots in the sample are from such parishes. Two things caused this. Charity land in general was more common in the Midland region of heavy Parliamentary enclosure than in the peripheral regions of the West and North. And plot descriptions in the areas with more common land tend to be more specific about whether land is common or enclosed. To ensure that parishes with and without Parliamentary enclosures were sampled representatively in each period we further weight the parish observations so that parishes in each county are weighted proportional to the area of land in each county that never experienced a Parliamentary enclosure. We also estimate separately the proportion of land common over time in parishes with and without Parliamentary enclosures.

Table 4 shows the resulting weights to correct for these biases on the individual observations on average by county for plots in parishes with or without at least one Parliamentary enclosure in

the years 1675-1724 where we have 1,594 observations on the fraction of land common in individual plots. If these were weighted equally to form an average of the amount of land enclosed each observation would get a weight of .00063. But in the preferred weighting plots in parishes without a Parliamentary enclosure in Middlesex get an average weight of only .000077, while plots in Northumberland get a weighting of .009568, more than 100 times as much. The weighting by design makes the total weight on the plots in each county relative to the agricultural area the same.

The last two types of bias turn out to need no correction. Because there were more charitable endowments where there were more people, there are more observations per acre from more densely populated parishes. While 27 percent of the land in England (but probably less than 27 percent of farmland) was in parishes with less than one inhabitant per 10 acres in 1801, only nine percent of observations by parish in the years before 1800 are from these least densely populated parishes. Similarly parishes with more than one person per two acres were only nine percent of the land area, but 18 percent of charity observations. But this over sampling of more densely populated parishes will have only effect the fraction of land estimated to be common if more densely populated parishes have more or less common land. When we run a regression for the years before 1800 on the fraction of plots observed to be common as a function of the parish population density controlling for county and for whether the parish had a Parliamentary enclosure we find no significant relationship between parish population density and the fraction of land common. Thus we do not make any correction for this over sampling.

Finally charity plots were smaller than the average land holding. Though plots described as "farms" held by charities in the years 1820-39 were about as large as the average farm holding in the 1851 census, much charity land was held as smaller plots rented to farmers and not occupied

as a farming unit themselves. If smaller plots of land tended to be more enclosed or more common than average plots then the Charity data might misrepresent the overall situation in England. Fortunately again there is no correlation in any period between plot size and the fraction of land that was common. If we regress the fraction of a plot that is common in the years pre-1800, and 1800-39 on both the plot area and the fraction of the parish still to be enclosed by Parliamentary means. This gives the results:

$$\text{1800-39}\quad FCOM = .039 - \underset{(.000027)}{0.0000018}AREA + \underset{(.012)}{0.49}FPARLENC$$

$$\text{pre-1800}\quad FCOM = .092 + \underset{(.000041)}{0.0000062}AREA + \underset{(.015)}{0.60}FPARLENC$$

where *FCOM* is the fraction of any plot that was common, *AREA* is the area of the plot in acres, and *FPARLENC* is the fraction of the land in the parish where the plot is located that was enclosed by Parliamentary means subsequent to the date of the observation. The numbers in brackets are the standard errors of the coefficient estimates. As can be seen the association between plot size and the fraction common is both quantitatively and statistically insignificant once we control for the amount of common land in a parish later enclosed by parliamentary means. In the years before 1800 a plot of size 1,000 acres would typically have 0.6 percent more common land than a plot of 1 acre. Thus there is no need to correct for this bias in the charity sample, and by not correcting we will get less sampling error in our estimates.

Apart from the biases we have discussed above the plots described in the data set used here seem to be in other respects a fair sample of English agricultural land. Thus parishes with different soil types – clay, loam, sand, gravel and chalk – are represented in the charity sample in a way that reflects the national distribution of these soil types.

THE PROPORTION OF COMMON LAND

Table 5 shows the numbers of observations by 50 year periods, the numbers of counties with observations, and the calculated proportion of common land estimated for the country as a whole through different weighting of the individual observations. The proportion common in the raw sample differs little from the proportions estimated under the various weightings. Table 6 shows the 95 percent confidence limits around the estimated fraction common controlling for parish type with our preferred set of weightings.

Table 6 implies that for the eighteenth century and later when we have coverage from the whole country little common is observed beyond that which would be expected from the records of Parliamentary enclosure. 21.5 percent of farmland in 1675-1724 is estimated to be common, while Parliamentary methods enclosed an estimated 21.9 percent of land in these same parishes. Even taking into account sampling error, there is only one chance in 40 that the amount of common in England circa 1700 exceeded 24 percent. Table 6 also implies that the amount of common land in 1600 is estimated to be little greater than in 1750. 26.6 percent of charity land is estimated common in 1600 compared to 19.5 percent in 1750, 7.1 percent more. In 1600, however, we do not have any information from Cheshire, Monmouth or Northumberland. We can control for these omissions to some extent by comparing the average amount of common observed with the amount that would be predicted from the records of Parliamentary enclosure. The charity observations in 1600 come from parishes that on average had somewhat more Parliamentary enclosure than those of 1750. Thus there is only 3.4 percent more common in these plots in 1600 than would be predicted from Parliamentary enclosure. Given the margins of error we cannot be precise about the exact amount of common land on charity plots in 1600 relative to what Parliamentary enclosure would predict. But there is only one chance in 40 that

there was more than 8.5 percent more common on charity land than would be predicted from later Parliamentary enclosure.

Earlier than 1600 we have few observations, and thus much more possibility of large sampling errors. In 1500 and 1550 we do consistently find more common land on the charity plots than was subsequently enclosed by Parliament in the same parishes. But this number is still only in the region of 5-10 percent.

LAND STATUS AS IT ENTERED THE CONTROL OF CHARITIES

Table 7 shows the percentage of common on land that had just come under the control of a charity through purchase or donation compared to would be predicted from the records of Parliamentary enclosure. This was done to check that private owners were not more likely to engage in private enclosures than charity trustees because of different legal restrictions on charity trustees, or because of different incentives faced by these trustees. Table 7 shows there is also little common land beyond what would be expected from Parliamentary enclosure on the newly acquired land. When land entered charity control before 1675, for example, only about three percent more of it was common than would be enclosed by Parliamentary enclosure. Our results do not stem from any peculiarity in the way charities managed land.

ENCLOSURE BY PARISH TYPE

We can also use the charity data to examine the timing and extent of enclosure separately in parishes which never experienced Parliamentary enclosure, and in those which had at least one Parliamentary enclosure. Chapman and Seeliger predict that the parishes with no Parliamentary enclosure would have large amounts of common in 1750 that was later enclosed privately. Table 8 shows the amount of common land by each type of parish, weighted as in table 6.

For the 43 percent of the country which lay in parishes and townships with no recorded Parliamentary enclosure, we find that in 1750 only 5.6 percent of land had common rights. The estimated proportion common also fell by only 0.8 percent between then and 1830, though sampling error means that the fall was anywhere from 0 to 2.5 percent. The proportion of common land is estimated to be somewhat higher in 1600, but is still only 8.6 percent. Thus the charity data suggests that between 1600 to 1830 only about four percent of land in the 43 percent of England without Parliamentary enclosure was enclosed. But not all of this four percent was enclosed by private agreements or piecemeal activity. For even though Tate ascribes no Parliamentary enclosure to these parishes, some of the land here was enclosed by Parliamentary means. We know this since the area ascribed to Parliamentary enclosures in parishes sometimes exceeds by a considerable margin the area of the parish. This implies that some Parliamentary enclosures must have included land from other unrecorded parishes.

There is more common land in the parishes enclosed by Parliament. An estimated 40 percent of the land in such parishes is common in 1600. But the fraction of common land in these parishes in 1600 is the same as would be expected from Tate's summary of Parliamentary enclosure. The implication is that there was little common land in these parishes in 1600 beyond what was later enclosed by Parliament. We have to be cautious with this interpretation, however, since in the years 1700 to 1800 we find 3-5 percent less common land in these parishes than would be predicted from Tate. This may be again because Tate's Doomsday of Enclosures tends to overstate the amount of land enclosed in any of the parishes listed there because some enclosures spilled over into adjoining parishes. It may also be because the area listed as enclosed included old enclosure that was reallocated in the enclosure process. We have, for example, observations from 60 parishes that Tate suggests should be entirely common land at the time of

the observation. In a full 40 of these 60 cases the charity plots have at least some enclosed land. Thus Tate reports the area enclosed by Parliament in 1810 in Dullingham, Cambridge to be 5 percent greater than the area of the parish. Yet the Charity Commission reports show clearly that as early as 1590 there were substantial enclosed fields in the parish.[19]

An alternative way to estimate the amount of enclosure occurring in these parishes outside that achieved by Parliament is to compare the amount of common on charity plots by period with the amount of those parish enclosed by Parliament. Based on this measure between 1600 and 1700 six percent of these parishes were enclosed by private means, much less than the 40 percent that was later enclosed by Parliament. The implication is that in parishes with Parliamentary enclosure there was modest enclosure in the years 1600-1750 before the Parliamentary enclosure movement, but little or no enclosure alongside Parliamentary enclosure in the years after 1750.

ENCLOSURE BY REGION

Figure 5 shows the results of another exercise like that conducted in table 8, where this time we have split the country into the twelve Midlands counties which had the highest fraction of land enclosed by Parliament – Bedford, Berkshire, Buckingham, Cambridge, Huntingdon, Leicester, Lincoln, Northampton, Nottingham, Oxford, Rutland, Yorkshire (East Riding) – versus the rest of the country. These Midland counties represent just under a quarter of the farmland area of England. The estimated proportion of land common in each period back to 1575-1624 is shown for the Midlands counties and the rest of the country, along with the 95 percent confidence intervals. Our best estimate for the Midlands in 1600 is that only 53 percent of land even then was common. Once we correct for the proportion of the parishes we happen to sample from which were later enclosed by Parliament we see little sign of much non-Parliamentary enclosure in

[19] Parliamentary Papers, "31st Report of the Charity Commission," pp. 133-135.

the years 1600 to 1750 in either region. Our best guess is that four percent of land was enclosed between 1600 and 1750 in the Midlands, and 4.5 percent in the rest of the country.

THE COMMON WASTE

Above we have lumped together enclosures of all different types. From the perspective of social historians the enclosure that mattered most was that of the village "waste." Other types of common rights – grazing rights on the arable fields after harvest, on the common meadow after mowing, and on pasture areas – were generally carefully limited and defined.[20] Though these lands were cultivated in common for part of the year, the rights of access were tradable private rights. The only land the landless poor had access to was the common waste. The charity sources allow us to also estimate what happened to this type of land. Economic historians are also particularly interested in open access commons. For economic theory predicts that the value of open access commons to users will be zero, since users will exploit the pasture and wood on these commons to the point where the returns just equal the value of their time in the activity. Consequently well functioning communities access rights to common areas will be limited to maximize the value of the resource to the community. This was why much common pasture was stinted. Since there is a cost to such regulation of commons, however, control will not be exercised where the resource in question has so little value that it is not worth policing. Economics would thus predict that the amounts of open access common would always be limited, and that such land use would be found only for the most unproductive types of land.

Table 9 shows the percentage of common waste in plots for the years before the Parliamentary enclosure movement began in earnest in 1750, dividing up parishes according to the average height of land in the agricultural district the parish lies in. Common waste land

[20] See Leigh Shaw-Taylor, "……."

constituted only 3.8 percent of land in the years before 1750 in the 2,099 parishes or townships where we have observations. The standard error of this estimate is small enough that we can be 99 percent confident that no more than five percent of land was "waste" in England in either 1750 or even in 1600. We have divided up parishes and townships according to the average height of land in the agricultural region the parish or township lies in.[21] There is a clear pattern in the amount of waste land by parish average height. Common waste is found in parishes in both very low lying and very hilly areas. The low lying parishes are those in the coastal areas of Cambridge, Lincoln, and Norfolk where there was much marsh land. The highest parishes are those in Cumberland, Derby, Westmoreland and Yorkshire. This confirms that land was left as open access common only where it was of little value, as in hill areas and coastal marshes.[22] The small extent and distribution of common waste before 1750 suggests that certainly by 1600 land use in England was economically "rational." Well defined property rights had been established for the vast majority of farmland. Property rights were not established only for the most marginal of land.

Based on table 8 only about 1.1 million in England was free access common in the years before 1750. Given that the population of farm laborers and their families in England in the years before 1750 was probably in excess of two million people, the amounts of common waste per person were thus always probably less than half an acre per person. The distribution of this common waste was such that in the densely populated areas of southern England the amount of common waste the landless had access to was much smaller. This implies that the effects of the enclosure of commons on the living standards of the rural poor, and on the earnings opportunities

[21]The average land heights were derived from Smith, Agricultural Climate, which divided England into 59 agricultural regions by topography and climate.

of rural women in particular, was most likely much less than Jane Humphries has argued.[23] In most parishes there would be too little common waste per family to allow the landless to keep cows, given the marginal nature of this land.

THE MOTIVATION FOR ENCLOSURE

The replacement of common lands by private property in England has been explained in very different ways. Marx and social historians inspired by him saw it as the expropriation by a new capitalist class of farmers of the property of the community that gave support to the formally landless. Robert Allen has recently revived this view with the claim that enclosure while privately profitable was not socially efficient.[24] Enclosure was mainly a device by landlords to push up tenants' rents to market value. Arthur Young and other proponents of enclosure saw it instead as an institutional innovation: a long delayed realization of the superiority of exclusive private rights to each piece of ground for farming efficiency. Clark, "Common Sense," in contrast, argued that enclosure was not an institutional innovation but a new choice within a known set of possible property rights induced by changes in relative prices. Enclosing common lands required substantial investment in fencing the new private plots and in administrating the reallocation of the land. It was an investment that yielded moderate profits even in the peak years of enclosure in 1760-1820. Had interest rates been higher the annual costs of enclosure would have been less. Had land rents been lower the gains from enclosure would have been correspondingly less. The close connection between the onset of enclosure and the Industrial Revolution arose in part from

[22]Clark, "Commons Sense," p. 91, shows that former waste land after enclosure had a rental value only 54 percent that of old enclosed land.

[23]Humphries, "Enclosure."

[24]Allen, "Enclosure."

the great increase in English population after 1760, which drove up the value of land relative to wages.[25]

The finding that there was little private enclosure in the period 1600-1750 is consistent with the story presented in Clark of enclosure as a response to changing relative prices. Figure 6 shows two series. The first is the ratio of the annual gains from enclosing land such as common waste, indexed by land rents, to the annual costs of enclosure, indexed as the product of wages times the average return from buying farmland from 1590 to 1839. This index of gains relative to costs is set to one in 1805-9. The second series is the number of acres enclosed by Parliamentary Act in each five year period measured in 100,000 acres per year. Our estimate is that the great bulk of enclosure after 1600 was by Parliamentary Act. The onset of the wave of Parliamentary enclosure coincides with a rise in the ratio of gains to costs.

CONCLUSION

There are three main conclusions. First in the years of Parliamentary Enclosure, between 1750 and 1840, there is very little additional enclosure by private means on charity plots. Second while there was private enclosure in the years 1600 to 1750 it was limited. Our best guess is that no more than one acre was enclosed by these means from 1600 to 1750 for every four acres later enclosed by Parliament. The third is that even as early as 1600 the amount of common waste to which even the formally landless poor had access to was small, and the waste was land with little value. No more than five percent of all land was such common access waste even then.

These findings have several implications. Firstly they imply that the form of property rights in most of English agriculture was "modern" as early as 1600. Even access to common land was defined and controlled by the community unless that land had little value. The amounts of truly

[25]See Clark, "Commons Sense."

communal resources available to all in the community were minimal. Second they imply that, at least after 1600, the major period of institutional change in English agriculture was the Parliamentary Enclosure movement of 1760 to 1820.

APPENDIX: PLOT DESCRIPTIONS FOR 1600-1699 IN THE NINTH REPORT

Sources

Allen, Robert. 1992. Enclosure and the Yeoman. Oxford: Clarendon Press.

Beresford, M. W. 1953-4. "Glebe Terriers and Open-Field Buckinghamshire, Part II" Records of Buckinghamshire, 16(1), pp. 5-28.

Beresford, M. W. 1949. "Glebe Terriers and Open Field Leicestershire." In W. G. Hoskins (ed.), Studies in Leicestershire Agrarian History. Leicester: Leicester Archaelogical Society, pp. 77-126.

Beresford, M. W. 1951. "Glebe Terriers and Open Field Yorkshire," The Yorkshire Archaelogical Journal, 37, pp. 325-368.

Chambers, J. D. and Mingay, G. E. 1966. The Agricultural Revolution, 1750-1880. London: Batsford.

Chapman, John. 1984. "The Chronology of English Enclosure," Economic History Review, 37: 557-559.

Chapman, John. 1987. "The Extent and Nature of Parliamentary Enclosure," Agricultural History Review, 35: 25-35.

Chapman, John. 1998. "Charities, Rents, and Enclosure: A Comment on Clark," Journal of Economic History, 59(2) (June): 447-450.

Chapman, John and S. Seeliger. 1995. "Formal Agreements and the Enclosure Process: the Evidence from Hampshire." Agricultural History Review, 43: 35-46.

Chapman, John and S. Seeliger. 1995. "Open Fields and their Disappearance in the Eighteenth and Nineteenth Centuries: the Evidence from Sussex," Southern History, 17: 88-97.

Clark, Gregory. 1998. "Commons Sense: Common Property Rights, Efficiency, and Institutional Change," Journal of Economic History, 58(1) (March): 73-102.

Clark, Gregory. 1998. "The Reports of the Charity Commission as a Source for Economic History" Research in Economic History: 1-49.

Clark, Gregory. 1998. "Land Hunger: Land as a Commodity and as a Status Good in England, 1500-1910," Explorations in Economic History, 35(1) (Jan., 1998), 59-82.

Clark, Gregory. 1999. "In Defense of "Commons Sense": Reply to Chapman" Journal of Economic History, 59(2) (June): 451-55.

Clark, Gregory. 1999. "Farmland Rental Values and Agrarian History: England, 1500-1912." Working Paper, University of California, Davis.

Clark, Gregory. 1999. "The Long March of History: Farm Laborers' Wages in England, 1208-1850." Working Paper, University of California, Davis.

Gray, Howard Levi. 1915. English Field Systems. Cambridge, Mass: Harvard University Press.

Hodgson, R. I. 1979. "The Progress of Enclosure in County Durham 1550-1870," in H. S. A. Fox and R. A. Butlin (eds.), Change in the Countryside: Essays on Rural England, 1500-1900. Institute of British Geographers, Special Publication, No. 10.

Humphries, Jane. 1990. "Enclosure, Common Rights, and Women: The Proletarianization of Families in the Late Eighteenth and Early Nineteenth Centuries," Journal of Economic History 50, no. 1: 17-42.

McCloskey, Donald N. 1972. "The Enclosure of Open Fields: Preface to a Study of Its Impact on the Efficiency of English Agriculture in the Eighteenth Century," Journal of Economic History 32, no. 1: 15-35.

Parliamentary Papers. 1823. Ninth Report of the Charity Commission. Vol. IX.

Parliamentary Papers. 1837-8. Thirty First Report of the Charity Commission. Vol. XXIV.

Parliamentary Papers. 1888. Agricultural Returns of Great Britain. Vol. CVI.

Shaw-Taylor, Leigh. 2000. "Did Agricultural Labourers.."

Slater, Gilbert. 1907. The English Peasantry and the Enclosure of the Common Fields.

Smith, Lionel Percy. 1976. The Agricultural Climate of England and Wales : Areal Averages, 1941-70. London : H.M.S.O. (Technical bulletin - Ministry of Agriculture, Fisheries and Food ; 35.).

Tate, W. E. 1978. A Domesday of English Enclosure Acts and Awards. Ed. Michael Turner. Reading.

Tompson, Richard. 1979. The Charity Commission and the Age of Reform. London: Routledge and Kegan Paul.

Wordie, J. R. 1983. "The Chronology of English Enclosure, 1500-1914," Economic History Review, 36, pp. 483-505.

TABLE 1: 99 PERCENT CONFIDENCE INTERVAL SAMPLING FROM A POPULATION WITH A SAMPLE MEAN OF 0.3

Sample size	Lower bound	Mean	Upper Bound
50	.12	.3	.48
100	.18	.3	.42
300	.23	.3	.37
600	.25	.3	.35
1,000	.26	.3	.34
1,500	.27	.3	.33

Source: Equation (1).

TABLE 2: CHARITY PLOTS WITH INFORMATION ON RENTAL VALUES

Region	1600-1799 Numbers of Land Values	1600-1799 Percentage lacking enclosure information	1800-39 Numbers of Land Values	1800-39 Percentage lacking enclosure information
North	763	28	2,727	20
Midlands	1,382	16	6,040	12
South-East	1,163	36	4,733	31
South-West	1,100	27	3,397	26
All	4,408	26	16,897	21

Source: Land Values Data Set. See Clark, "Reports."

TABLE 3: IMPLIED SHARE OF MISSING OBSERVATIONS WHICH IS COMMON

Period	Share of plots with information which were common	Implied Share of plots without information which were common		
		Minimum	Mean	Maximum
1600-1749	26	17	29	40
1750-1799	16	13	29	45
1800-1839	7	2	7	13

Source: See text.

TABLE 4: THE PREFERRED WEIGHTING OF THE OBSERVATIONS IN 1675-1724

County	Observations	Agricultural Area 1888	Weight of observations in parishes with no Parliamentary enclosure	Weight of observations in parishes with at least one Parliamentary enclosure
Bedford	30	302,476	.000428	.000373
Berkshire	41	408,260	.000550	.000362
Buckingham	33	435,026	.000631	.000467
Cambridge	34	493,398	.000413	.000570
Cheshire	16	564,325	.001418	.001182
Cornwall	10	625,541	.002293	.002948
Cumberland	8	622,436	.002933	.002933
Derby	61	537,134	.000380	.000325
Devon	100	1,279,549	.000486	.000474
Dorset	38	523,392	.000429	.000620
Durham	6	462,577	.002907	.002907
Essex	49	862,749	.000600	.000774
Gloucester	47	712,244	.000474	.000627
Hampshire	24	823,669	.001725	.001232
Hereford	27	486,221	.000643	.000708
Hertford	40	364,331	.000453	.000320
Huntingdon	18	214,768	.000623	.000440
Kent	35	844,852	.000983	.000751
Lancashire	71	862,459	.000459	.000456
Leicester	68	486,411	.000309	.000254
Lincoln	86	1,554,971	.001011	.000653
Middlesex	50	117,369	.000077	.000094
Monmouth	8	277,076	.001244	.001741
Norfolk	48	1,146,610	.001052	.000861
Northampton	32	587,697	.000739	.000688
Northumberland	3	761,356	.009568	.009568
Nottingham	38	479,367	.000502	.000471
Oxford	52	437,610	.000233	.000351
Rutland	5	90,985	.000686	.000686
Shropshire	27	767,923	.001053	.001084
Somerset	57	908,421	.000641	.000581
Stafford	57	641,243	.000457	.000406
Suffolk	18	811,318	.001600	.001799
Surrey	23	344,482	.000546	.000573
Sussex	9	796,224	.003752	.003002
Warwick	73	516,601	.000280	.000265
Westmoreland	12	267,790	.000918	.000834
Wiltshire	51	807,094	.000520	.000623
Worcester	48	422,531	.000356	.000322
YER	30	683,864	.000645	.000875
YNR	40	911,222	.001272	.000702
YWR	71	1,280,328	.000726	.000675

Sources: Parliamentary Papers, Agricultural Returns.

TABLE 5: FRACTION COMMON ESTIMATED IN DIFFERENT WAYS

Period	Charity Observations	Counties Represented	Fraction of land common (unweighted)	Fraction of charity land common – weighted by parish and county	Fraction of charity land common – weighted by parish, county, and Parliamentary Enclosure
1475-1524	61	9	32.5	32.8	34.8
1525-1574	130	31	37.5	35.9	32.5
1575-1624	428	39	33.0	27.4	26.6
1625-1674	911	41	27.8	26.7	24.3
1675-1724	1,594	42	26.3	23.4	21.5
1725-1774	1,527	42	22.3	21.5	19.5
1775-1824	6,792	42	7.9	7.7	7.5
1825-1839	7,499	41	6.9	5.2	5.3

Notes: The three ridings of Yorkshire are counted as distinct counties. The county missing in 1825-39 is Westmoreland, in 1625-74 Northumberland. The counties missing in 1575-1624 are Cheshire, Monmouth and Northumberland. The average date of observations in the 1775-1824 period is 1813.

Source: Enclosure Data Set.

TABLE 6: THE 95 PERCENT CONFIDENCE INTERVAL FOR THE AMOUNTS OF COMMON LAND UNDER THE PREFERRED WEIGHTING

Period	Estimated Percent Common	Standard Error Of the estimate	Lower Bound	Upper Bound	Percent of these parishes later enclosed by Parliament
1475-1524	34.8	7.6	20.0	49.7	24.9
1525-1574	32.5	4.4	23.9	41.1	27.8
1575-1624	26.6	2.6	21.5	31.8	23.2
1625-1674	24.3	1.7	21.1	27.6	22.1
1675-1724	21.5	1.3	19.1	24.0	21.9
1725-1774	19.5	1.1	17.3	21.7	20.7
1775-1824	7.5	0.6	6.3	8.7	7.8
1825-1839	5.3	0.9	3.4	7.1	3.0

Note: The true fraction common in each period will be found between the minimum and maximums 95 percent of the time.

Source: Enclosure Data Set. Tate, “Doomsday.”

TABLE 7: FRACTION COMMON ON PLOTS NEWLY ACQUIRED BY CHARITIES

Period	Observations	Percentage of common land (unweighted)	Percent of these parishes later enclosed by Parliament
1475-1524	43	28.5	25.6
1525-1574	95	34.5	30.8
1575-1624	303	33.8	32.9
1625-1674	622	28.1	25.3
1675-1724	1,206	28.1	28.3
1725-1774	966	23.2	26.6
1775-1824	597	11.8	13.4

Source: Enclosure Data Set.

TABLE 8: PARLIAMENTARY ENCLOSURE BY PARISH TYPE

Period	NO PARLIAMENTARY ENCLOSURE		AT LEAST ONE PARLIAMENTARY ENCLOSURE		
	Parishes	Common (%)	Parishes	Common (%)	Parl. Enclosure
1475-1524	15	11.2	25	52.7	43.4
1525-1574	30	8.1	69	51.0	48.6
1575-1624	111	8.6	210	40.2	39.9
1625-1674	217	8.0	428	36.7	37.4
1675-1724	332	7.7	779	31.9	37.6
1725-1774	328	5.6	736	30.0	35.5
1775-1824	724	3.8	1,504	10.2	13.6
1825-1839	893	4.8	1,944	5.7	5.3

Source: Enclosure Data Set. Tate, “Doomsday.”

TABLE 9: COMMON WASTE BEFORE 1750 BY AVERAGE LAND HEIGHT

Average height of land in parish (in meters)	Number of parishes or townships	Percentage of land common waste
0-19	39	27.0
20-49	374	3.2
50-99	721	2.6
100-149	768	2.8
150-199	71	5.7
200-249	65	7.3
250+	61	14.9
all	2,099	3.8

Source: Enclosure Data Set. Average heights of land in parishes derived from Smith, Agricultural Climate.

TABLE 10: THE CODING OF SOME PAGES FROM THE NINTH REPORT

Page	Year	Area	Description	Share Common
			Devon (pp. 6-109)	
7	1624	101.0	"lands in the parish of Hartland"	-
8	1670	2.0	"a close"	0.00
9	1657	23.3	"tenement"	-
13	1674	7.0	"two quillets of land…and one piece of marsh"	-
16	1678	7.2	"three closes"	0.00
20	1632	8.5	"closes"	0.00
39	1672	3.5	"messuages, lands and tenements"	-
48	1690	1.5	"one sixteenth part of a tenement"	-
50	1615	25.6	"messuage and tenement and 10 closes"	0.00
70	1689	60.0	"messuage and tenement"	-
71	1689	13.0	"closes"	0.00
75	1629	26.0	"an estate"	-
80	1677	20.0	"three messuages and tenements"	-
81	1651	5.0	"garden and two closes"	0.00
88	1620	55.0	"messuage or tenement"	-
88	1620	16.7	"messuage or tenement"	-
93	1631	3.0	"garden and close"	0.00
102	1619	3.0	"two meadows or closes"	0.00
108	1659	5.0	"one fourth part of a tenement"	-
109	1667	10.5	"two closes"	0.00
			Middlesex (pp. 175-324)	
179	1662	19.3	"premises"	-
185	1677	11.7	"nine acres of land in the common fields, and two acres in the marsh"	1.00
192	1622	30.0	"all those lands and grounds lying in sundry closes"	0.00
196	1612	3.1	"orchard and garden .. one acre being in the field there called Long Field, and 2 A. & 1 R. lying in two pieces in the common field there"	0.86
199	1620	3.6	common right attached to houses	1.00[a]
201	1672	5.3	"two acres of land,…one acre and a half of meadow in Wild Marsh, …one acre of land in Dung field, and two acres of land in the same field called Locker Croft, and five roods of land in long field"	0.62
206	1640	1.9	"close" plus common right	0.61[a]

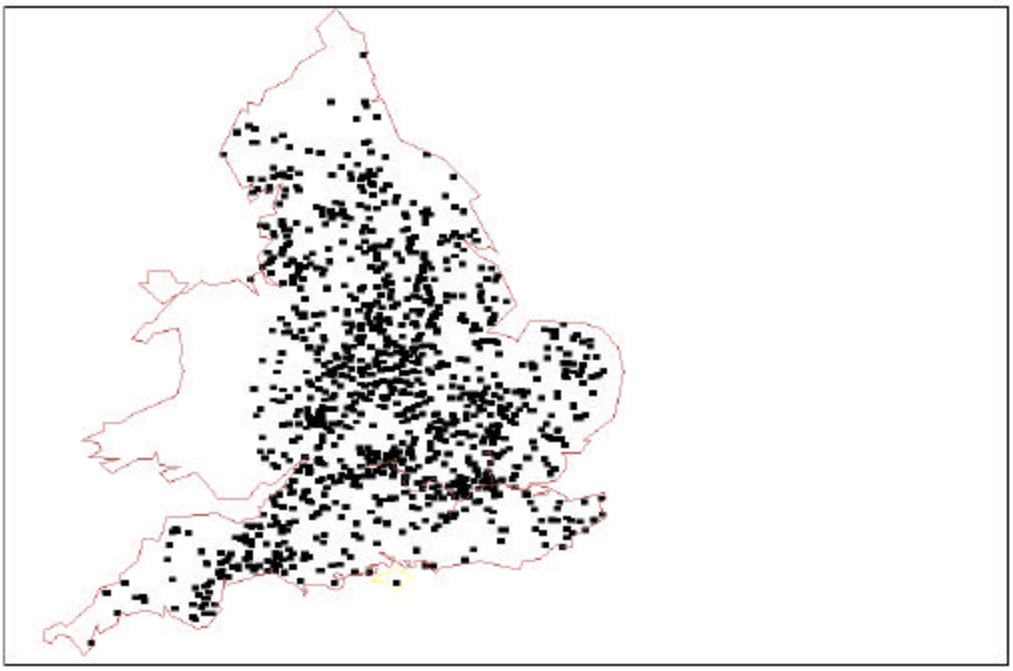
222	1649	1.0	"an acre of land situate in South Field"	1.00
223	1693	4.1	"nine or ten acres of land, lying dispersed in the common fields"	1.00
225	1692	0.5	common right	1.00[a]
226	1677	9.2	"six acres of land, lying dispersed in Boothwood and Sipson fields"	1.00
226	1680	1.0	"one acre of arable land lying in a field called Boomer field, in a shott called Withey Stubbs"	1.00
229	1618	8.0	"orchard and garden …containing an acre and an half, and 6½ acres of arable and meadow land lying dispersed in the common fields of Norwood"	0.81
230	1631	20.5	"one great close"	0.15[a]
230	1686	7.0	"four acres of land in Hayes field, …, 1½ acre in Osterley Park, and 1½ acre in Breterish haw, which was then an open field"	1.00
249	1648	4.0	"four acres of meadow, lying in More Fields"	1.00
251	1695	0.1	common right attached to house	1.00
259	1690	11.2	"closes of pasture and meadow"	0.00
277	1679	3.5	"four acres in the common field of Laleham"	1.00
277	1679	2.0	"three acres in the common field of Feltham"	1.00
284	1696	-	"glebe lands"	-
291	1662	7.0	"one acre of land in Warfield, one half acre in the little Mead, an ayte.. with a small pightle near adjoining, three roods in Watson's close, three roods in Mark hole, three roods in the close of Henry Blagne, the tenter plat in the Wick, and two acres of land in Wickfield"	1.00
298	1678	3.0	"close"	0.00
309	1625	56.7	"several closes and lands"	0.50
312	1668	12.0	"all that parcel of land, commonly called Ellis Riddings"	0.00
312	1670	9.0	"nine acres of land lying in the common fields"	1.00
313	1691	24.0	"lands at Egham"	-
313	1691	6.8	"11 acres of arable or meadow land, lying in the common fields"	1.00

Notes: [a]Area of common land revealed by later allotments made to the charities in respect of land or houses.

"-" in the last column means that the share of the plot common could not be approximated.

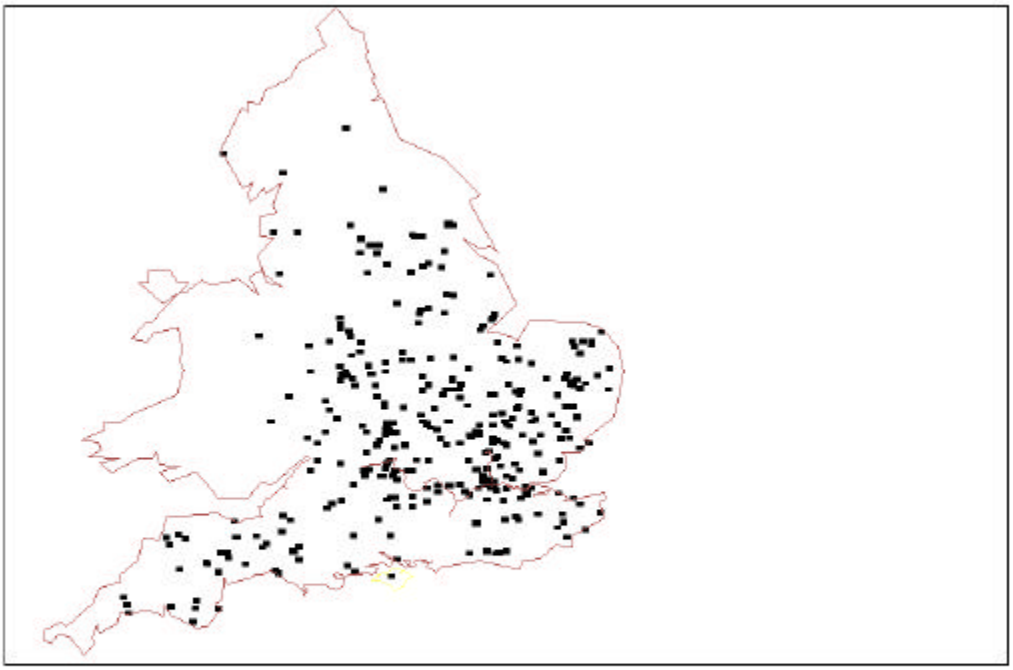
Source: Parliamentary Papers, "Ninth Report of the Charity Commission."

FIGURE 1: THE GEOGRAPHIC DISTRIBUTION OF THE SAMPLE, 1675-1724



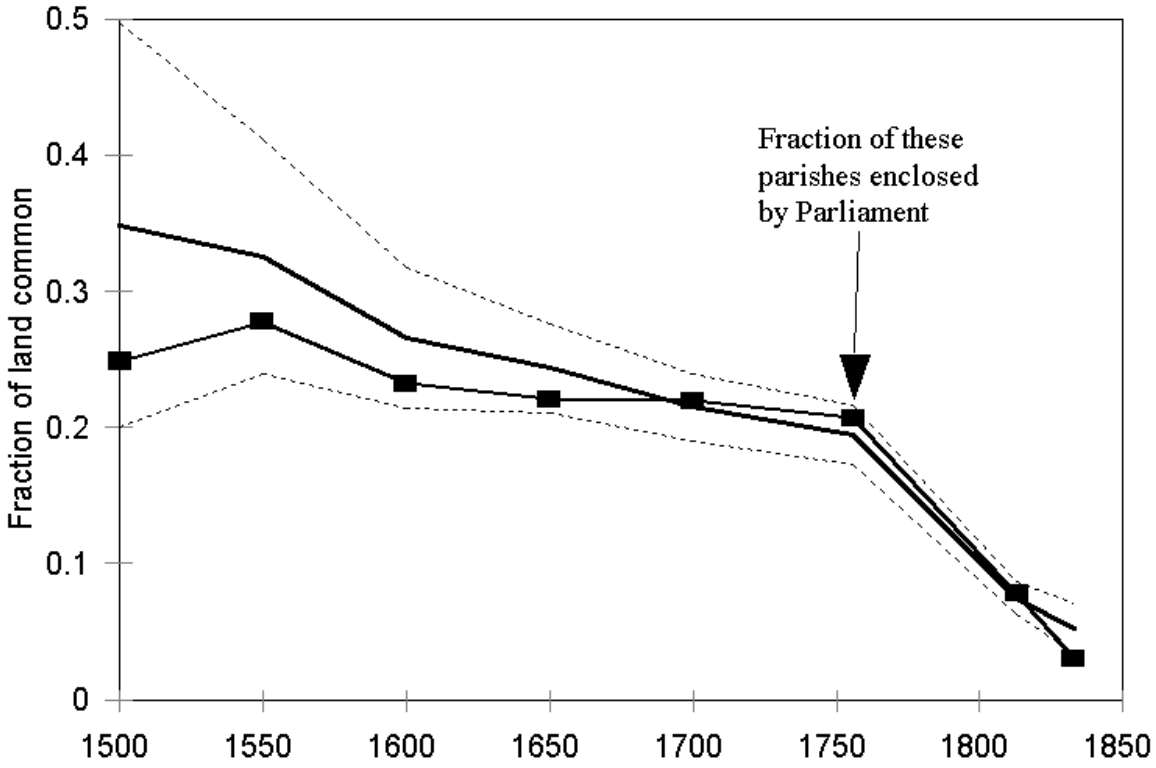
Note: The graph portrays the locations of 1,082 parishes and townships with observations of plots in this period.

FIGURE 2: THE GEOGRAPHIC DISTRIBUTION OF THE SAMPLE, 1575-1624



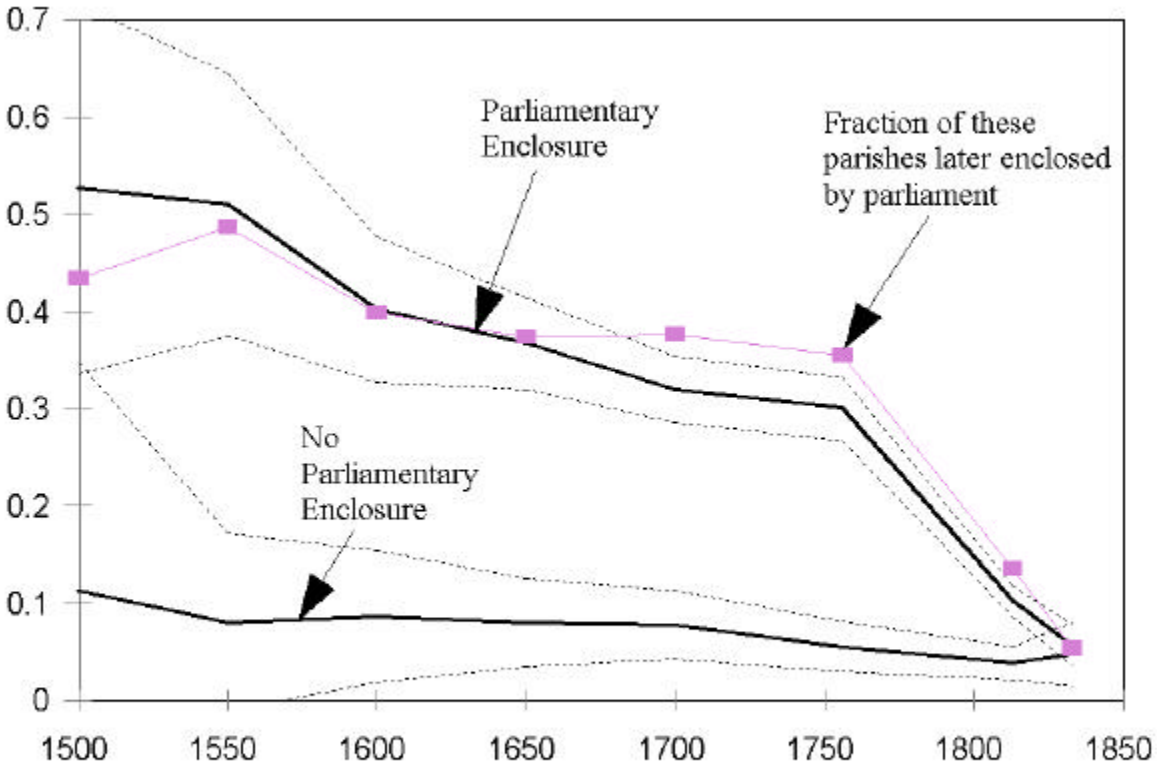
Note: The graph portrays the locations of 533 parishes and townships with observations of plots in this period.

FIGURE 3: CONFIDENCE LIMITS ON THE PERCENTAGE OF LAND COMMON IN A SAMPLE OF PARISHES



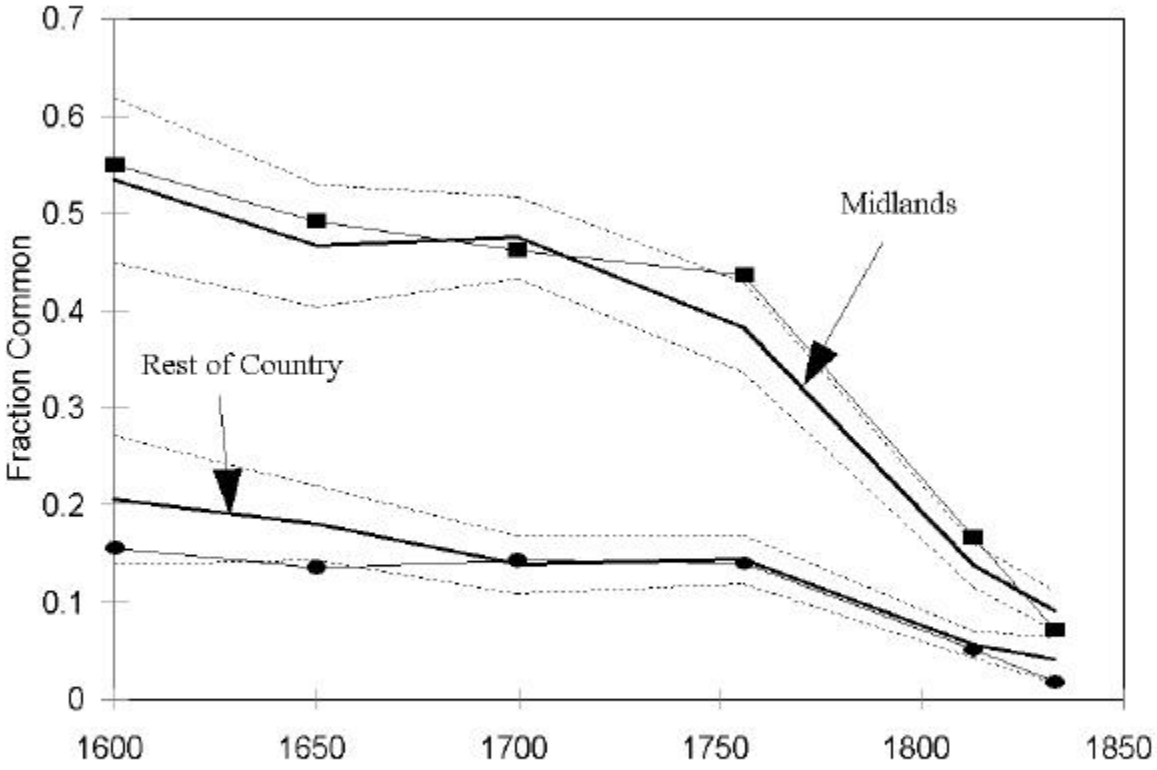
Note: The dotted lines show the 95 percent confidence limits of our estimate of the fraction of land enclosed in each 50 years period.

FIGURE 4: COMMON LAND BY PARISH TYPE



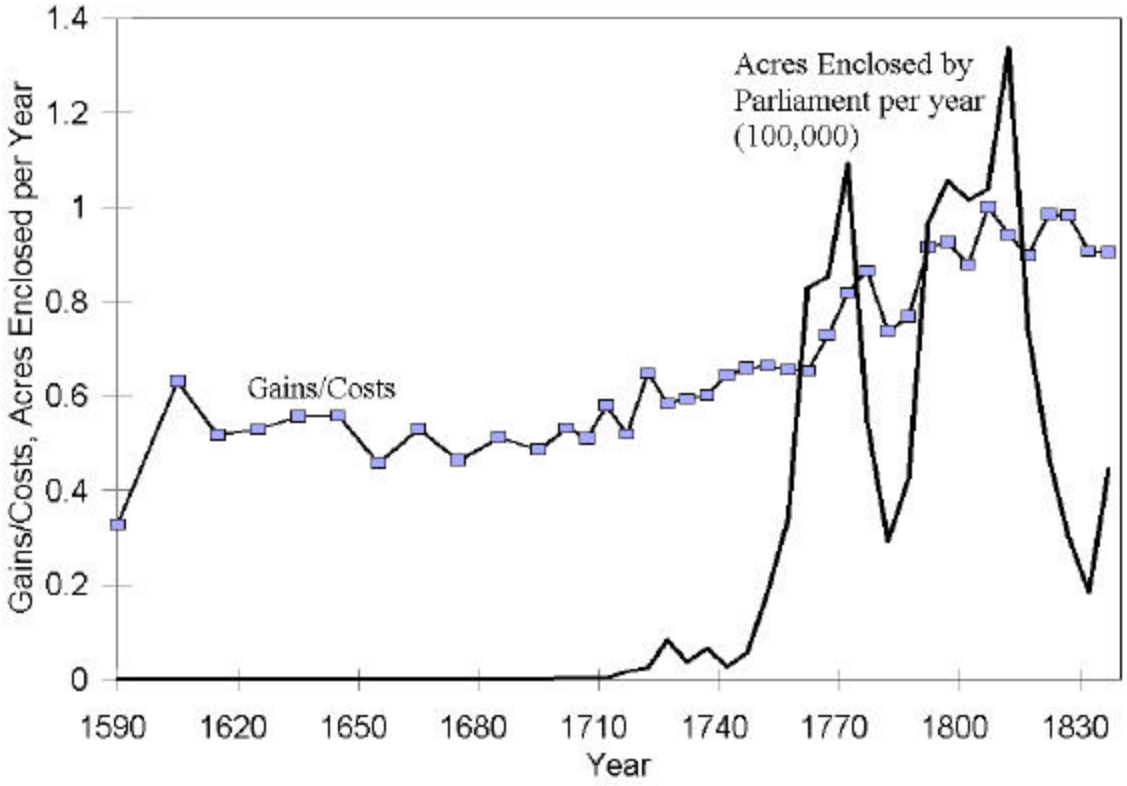
Note: The dotted lines show the 95 percent confidence limits of our estimate of the fraction of land enclosed in each 50 years period by parishes with or without a Parliamentary Enclosure. The line indicated by the squares shows the fraction of the parishes with a Parliamentary enclosure later enclosed by Parliamentary Act.

FIGURE 5: COMMON LAND BY REGION



Note: The dotted lines show the 95 percent confidence limits of our estimate of the fraction of land enclosed in each 50 years period by region. The line indicated by the squares shows the fraction of the parishes in the Midlands later enclosed by Parliamentary Act. The line indicated by the circles shows the fraction of the parishes in the rest of the country later enclosed by Parliamentary Act.

Figure 6: The Ratio of Gains to Costs and the Onset of Parliamentary Enclosure



Sources: Rents on enclosed land from Clark, "Farmland Rental Values." Agricultural Wages from Clark, "Farm Wages," and Clark, "Long March." Return on land purchases from Clark, "Land Hunger." The enclosure timing is from Tate, Doomsday.