The evidence about population trends between 1275 and 1348 is too diverse and uncertain to prove or disprove the theory of a Malthusian crisis in the early 14th century. By means of the application of classical economic theory to Malthus and Ricardo to the medieval economy and society, Pastor felt quite sure that he was able to prove the theory of a Malthusian crisis in the early fourteenth century. An overextended population interacted with a finite set of resources with crisis as the result; from the end of the 13th century, population began inevitably to "tumble down" and, by the time the Black Death arrived in 1348/9, the necessary positive Malthusian checks had established the population-resources equilibrium. Hatural and human checks relied heavily upon Pastor's work closely corroborate the theory of a Malthusian crisis in the early 14th century. It was, they concluded, "at least extremely high mortality." How well-founded was the application of Malthusian theory to medieval England?

Pastor's theory made the balance between population and resources the dominant feature of the medieval economy. According to Malthus, population would increase in pre-industrial societies until it reached a ceiling. Checks would then be activated to restore the balance: the checks would be either "positive" in that mortality would increase, or "preventive" in that fertility would decrease. Pastor added Ricardo's concept of the cultivation of marginal lands to the Malthusian theory. Thus,
the 13th century becomes illustrative of the march of the inevitable crisis. An increasingly desperate population would cultivate marginal lands (in terms of grain production), and in the early 14th century, the failure of those marginal lands initiated a massive decline in population.

The evidence for Putter's thesis was collected from five monastic houses which, from the estates of the bishop of Winchester, by the early 14th century (death during levels on the land). Customary rents and grain prices, however, Putter made conclusions about

the levels of mortality. Surges in mortality were shown to reflect high grain prices with a calculation of crude death rates of 70-95 per thousand; and also about life expectancy.

But there are serious flaws in this approach to proving the theory of a Malthusian crisis in

the late century before the Black Death. Before we can consider new evidence about demographics between 1275 and 1350, it is of critical importance to address how relevant the aphorism on

the relationship between population and

But there are serious flaws in this approach to proving the theory of a Malthusian crisis in

the late century before the Black Death. Putter concentrated on the failure and exhaustion of the heat in order to substantiate his thesis. Yet in so doing he failed to take account of the degree to which England was commercialised by 1300 and the extent to which trade, and not simply subsistence affected the definition of so-called “marginal lands.” In other words, though much land may have
been the incentive for grain production, the existence of a trade nexus may have mitigated or even eradicated the effects of this. Mark Bailey has shown how Brockland with its sandy soils was unsuitable for grain production and was used to cultivate other products, and that profits to buy subsistence necessitates. Indeed the Brockland manors which Pocock himself uses had substantial central collection parts for grain at the beginning. The grain would then be stored on this in itself indicates some trade nexus, and was against a simple population-resource ratio with commercialisation as an irrelevant side issue.

In addition, in reaching his conclusions, Pocock criticised the "inertia" of medieval agricultural technology. He held landlords responsible for conserving the profits of their estates without developing the technology with which they worked. But it is clear that this is an unsubstantiated criticism. Across the country, the replacement of the ox by the horse is just one example of the horses could improve traction of the need of machinery and also the speed with which goods could be transported to market. Further technological developments also took place in East Anglia, the most commercialised part of England by 1300. Campbell has shown that peasant produce there had managed by 1300 to produce a system of cultivation combined with high yields with the elimination of fallow. The large-scale field cultivation of legumes was the
most prominent technological innovation increasing fertility.

Quite apart from mere generalised criticisms of Paston's thesis is a specific criticism of the evidence he employed to substantiate it. He concentrated on only five manors on the estates of the historically rich landlord, the bishop Winchelsea. He assumes the population of the estate making in allowance for the likely effect of subdivision of holdings or the fact that each husband may have anticipated death duties.

Without even looking at evidence of demography in the late 13th and early 14th centuries, the many Malthusian 'crises' is already under question. Can demographic evidence add weight to this? Although the re-emergence of early 14th century demographic trends is variation and regionality coupled with a lack of evidence, it is clear that Paston's methods don't give results in the ratio of population to resources even were commercialisation in evidence. Certainly short-term surges or mortality towards the end of the 13th century and the beginning of the 14th century are apparent. A calculation of 'background mortality' rates is not easy. It is difficult to calculate from the evidence available crude life expectancy or death rates in normal years.

Evidence of demographic trends gives the impression that Plague was indeed spread by 1300. In though northern and central Essex showed the least over both, the years of harvest dependency showed a notable impact. In 1315-17, the proportion of resident males was 15%. It was followed by three decades of sustained decline by almost 30%.
most prominent technological innovation increased fertility.

Quite apart from more generalised criticisms of Paston's thesis is a specific criticism of the evidence he employed to substantiate it. He concentrated on only five monads on the estates of the historically well-to-do landowners the bishop Whithope. He assumes the population of these monads in no allowance for the likely effect of subdivision and inheritance or the fact that cash rentals may have been anticipated death duties.

Without even looking at any evidence of demography in the late 13th and early 14th centuries, the many "Marriage crisis" is already under question. Can demographic evidence add weight to this? Although the keynotes of early 14th century demographic trends is variation and regionality coupled with a lack of evidence, it is clear that Paston's conclusion that there were noticeable changes in the ratios of population to resources even where commercialisation is in evidence. Certainly short term surges of mortality toward the end of the 13th century and for the beginning of the 14th century are apparent. A calculation of "background mortality" needs to be easy. It is difficult to calculate from the evidence available crude life expectancy or death rates in normal years. Evidence of demographic trends gives one impression that "humps" were indeed formed by 1300. As though northern and central Essex showed no trend in 1300, the years of highest density shown to have a notable impact in 1315-17, the loss of resident males was 15%. It was followed by three decades of sustained decline by almost 30%.
...from Somerset shows growth rates slower from 1.3% in 1209-68 to 0.5% after 1315. Growth also slowed at Helmsley from 0.8% in 1276-1315 to 0.4% in 1321-69. More so, in addition, some evidence that in North Eastern Suffolk and North Central Essex population may well have been in decline at least from the 2nd decade of the 14th century.

It seems, therefore, that whilst Pothen's thesis is seriously flawed, and that there is no evidence of population "tumbling down" in the years after 1300, we cannot dismiss the idea that at least a Malthusian check came into action after 1300; "Choirs" is surely too strong a word. The evidence demographic evidence for change is varied, and clearly it showed nine brains in some of those areas studied than in others, but the general impression remains of Malthusian checks, coupled with exogenous climatic changes playing an important role in the early 14th century before 1378.

...it is difficult to branch out from the notion of positive Malthusian checks to notions of preventive checks because of evidence to low birthrates and changes in the mean age of female marriage. What we are left with, therefore, is a picture of regional and variance in the early 14th century, possibly linked with the merging of lordship in a given area (they not in Brenno's greatly Marxist view). However, the picture does not indicate demographic strain, and the action of Malthusian checks, but it does not indicate choir.