The rural population: agriculture, birth-rates, and demographic transition

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In Sweden, agriculture used to be seen as the principal industry – the industry from which its other industries sprang. The great majority of Swedes in their fifties today have at least one parent who grew up in the countryside and farmed, something which could not be further from the truth for most Swedes now in their twenties. The traditional account of agriculture’s history in Sweden in the twentieth century often emphasizes technological developments. Agriculture’s dwindling importance for the labour market is ascribed to rapid mechanization. In this chapter I instead present an alternative perspective in which demographic changes are brought to the fore. From this viewpoint, economic and technological change appears more the result of demographic change than the main driving forces behind it. The hypothesis I propose is that the transition from high to low human fertility is a central reason for the changing role of agriculture. As long as fertility was high, the smaller family farm remained a form of livelihood that presented considerable advantages. When fertility dropped, this kind of livelihood lost its central role almost completely.

In Sweden as a whole arable peaked in about 1920, but regionally the picture was more uneven. In six counties (Stockholm, Göteborgs och Bohuslän, Uppland, Värmland, Skaraborg, and Blekinge) the peak was reached in 1910 or earlier; in seven other counties (Kopparberg, Västmanland, Gävleborg, Västernorrland, Jämtland, Västerbotten, and Norrbotten) it would only be reached in the interwar period and even as late as 1950 (see Table 1). It was not only the spread of farmland that peaked in the first two decades of the twentieth century. The same was true of births. Between 1906 and 1910 an average of 137,483 children were born each year. This was the highest average figure for a five-year period ever measured in Sweden since 1750. Yet the link between the cultivation peak and birth maximum is not only true on a national level. It was also the case that in all the provinces except Blekinge that reached their cultivation peak early, fertility rates (the number of children born to each woman) were under the Swedish average, while in those provinces except Kopparberg that reached their cultivation peak late had a higher fertility rate than Sweden on average (see Figure 1).

The purpose of this chapter is to analyse what lies behind the connection between birth-rates and farming. The focus will be on how such a connection can best be explained, and what the significance of regional differences in birth-rate may have been for agriculture – and opinions on agriculture. Reindeer-herding, which it is discussed by Peter Sköld elsewhere in this anthology, is not part of the present analysis, although the new settlements in the region of Norrland are included.

Demographic transition in rural districts

According to Statistics Sweden, in 1930 there were some 430,000 agricultural units in Swe-
den. Of these, 79 per cent were smaller than 10 ha, while 59 per cent were smaller than 5 ha. Small family farms in many cases generated only a very modest income, but even so production was sufficient to support some 600,000 children under the age of fifteen. By 1960 the number of agricultural units had fallen to 233,000 (excluding those of less than 2 ha), and the number of children they supported had dropped to 200,000. For 1999, Statistics Sweden reports that there were 85,000 agricultural units, and even if we lack the exact figures for how many children were living on the farms, their number can be estimated to have been around 50,000.

The reduction in the number of agricultural units between 1930 and 1999 was wholly restricted to those smaller than 30 ha. In those classes, 86 per cent of agricultural units have disappeared, primarily in the smallest size-categories. On the other hand, the number of agricultural units over 30 ha has increased.

The restructuring of Swedish agriculture has thus gone hand in hand with the loss of its function as the basis for the reproduction of the new generations. Those farms that exist today concentrate on producing for the market. The farms that have vanished are those whose prime function was to feed the farmers’ families. Therefore it is perhaps not quite correct to think abandoned Swedish farms are the result of the cold winds of economic fortune. Instead they should perhaps be thought abandoned nesting boxes or nests. They have fulfilled their function as a place where children, incapable of feeding themselves, have been fed by their parents. Now when the children have grown up, the nest is no longer needed.

In the statistics we can follow these children, tracing the cohort (generation) born 1920–30 to see what became of them right through to the 1990s. In 1930, 400,000 of the children in this cohort lived in farming households and were aged 0–10. In 1950 the cohort was aged 20–30, but by then only 165,000 were to be found still involved in agriculture. More than half had switched to other livelihoods. In 1975, the 1920 cohort was now aged 45–55, but there were only 61,000 of them remaining in agriculture. In 1990, 32,000 of them were still active in farming, then aged 60–69. Thus of the children who in 1930 had been directly supported by Swedish agricultural units, as many as 85 per cent had left farming by 1975. The main part of their working lives spanned the period from after 1945 until the beginning of the 1990s, a time when Swedish GDP per capita increased by 2.26 per cent.

Falling fertility and Land availability

According to the international literature, there are different ways of tackling the question of the connection between children and agricultural expansion. On the one hand, it can be argued that fertility rates rise in regions where agriculture is able to expand. On the other hand, the expansion of agriculture can be said to result from farming families’ determined efforts to guarantee their growing numbers of children will be fed.

Even when it comes to the consequences of changing fertility patterns and a retreat from the cultivation peak, one can apply a variety of perspectives. One is that agriculture’s changing role in the national economy was coupled to the fact that this staple industry no longer served as society’s cradle. Another question is how opinions on agriculture and its processes of change are influenced by the relationship various generations had with agriculture when they were growing up.

Two hypotheses that are particularly significant for fertility rates: land availability and education. That the insufficient availability of farmland might give rise to lower fertility rates was an idea that had already been launched by Robert Malthus in his book, An Essay on the Principle of Population. First and foremost, the mechanism that Malthus analysed was how an
TABLE I. Regional fertility, 1900–50 (annual average = 100) and cultivation peak by province. Sources: Statistiska centralbyrån 1999; Höjer 1921; Statistiska centralbyrån 1927–51; Statistiska centralbyrån 1920; Statistiska centralbyrån 1865–1911; Morell 2001.

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<th>1920</th>
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Increase in population pressure leads to falling labour productivity in agriculture. This in turn means that wages are forced down, and it therefore becomes harder for young couples to start families. This mechanism is one I refer to as the ‘marriage valve’. The question is whether it is relevant to Sweden. It is interesting to note in this respect that Värmland in particular was one of the provinces that saw the greatest levels of emigration up to 1910. Falling birth-rates in combination with high levels of emigration can be taken as a clear indication that young people were finding it difficult to make a start in life.

Above all it is in the US that attention has been called in modern research to the importance of land availability for fertility rates. 7 Over the course of the nineteenth century, a clear east–west fertility gradient developed in the US. In the eastern US, where the popula-
tion density was high, fertility rates were low; on the other hand, in the western US, where it was still relatively easy to acquire farmland, fertility rates were high. The American picture displays great similarities with the patterns observed in Sweden at the start of the twentieth century, where fertility rates were low in the more densely populated southern and central regions, while they remained higher in the thinly populated region of Norrland.

True, it has been questioned whether land availability really was the decisive factor in the regional variations in fertility rate in the US. Another explanation might be that the level of education in the eastern US was higher, and higher levels of education generally go hand-in-hand with lower fertility rates. However, this objection overlooks the fact that there is a connection between population density and education. Where population density is low it is difficult to muster a viable pupil population. At the same time, the demand for educated labour is greater in densely populated areas with large urban labour markets. The education hypothesis is thus not at odds with the significance of population density. At the same time, it points to the fact that land availability is not the only decisive factor. An alternative view is that cultivation peak was reached because agriculture no longer appeared a particularly attractive occupation compared with a job in the city. Lower fertility rates can then be seen as an adaptation to children being a greater burden on urban households than on agricultural households.

The land-availability hypothesis is thus a way of explaining the correlation between birth-rates and the cultivation peak. If one chooses this explanation, the cultivation peak should be seen as an indication that there is no longer any chance that agriculture can continue to expand. The population limit that has been reached might thus be determined by natural circumstances including climate (there is no land left suitable to farm); economic and technological circumstances (the falling price of agricultural products makes it unprofitable to expand); or social circumstances (the land is controlled by land-owners who refuse to lease it out to small-holders). The alternative is that the cultivation peak can be seen as resulting from a life in farming no longer being seen as sufficiently attractive when compared to an urban career. Regardless of what lies behind it, reaching the cultivation peak means that there will be fewer new agricultural households and more urban households, which results in lower fertility wherever urban households prefer to avoid having large numbers of children.

Arable expansion as a subsistence strategy

The connection between the cultivation peak and birth-rate might also stem from a high birth-rate forcing farming households to expand. The way the number of children impacts on economic activity in agricultural households has been analysed in detail by the Russian agrarian economist, Alexander Chayanov. He was able to show that peasants in Russia increased their labour input to match their families’ growing needs, and that they reduced production as their children grew up and left home. A recent study undertaken in Ethiopia confirms this pattern: so-called life-narrative interviews were conducted that focussed on the period when the interviewees had started a family, and on how the composition of their households varied over time, and at the same time they were asked about any changes in how they farmed their own farms during the different phases of their households’ development. It transpired that food supply considerations played a key role in how farming activities were planned and carried through. An increased family burden resulted in a more intensive form of agriculture. This means that even at the household level one can find the pattern that another agrarian economist, Ester Boserup, has identified
on the macro level, namely that agricultural direction changes when population pressure changes. A third economist to have studied this pattern was David Ricardo. His well-known theory of land-rents describes how the value of the best agricultural land increases when population growth results in increasingly marginal land being brought into agricultural use. Neither Chayanov, Boserup, nor Ricardo would necessarily find much to object about if the date of the cultivation peak were to be linked to that for changes in fertility.

Further support for this view is given in Figure 1, which shows how age distribution in Sweden changed over the twentieth century, and how this trend was linked to the increase in the proportion of children and young people in the nineteenth century. The combination of high fertility rates and falling infant mortality rates created a growth in the number of children that was to last up to the First World War. The cultivation peak for Sweden as a whole therefore coincided with the period when the ‘child phase’ of Sweden’s demographic transition was coming to an end. One can thus see a clear connection between high fertility rates and adherence to a traditional sufficiency model that depended on young families having access to farmland to produce their own food. When fertility rates dropped, a new pattern was created in which agriculture no longer had the same bearing on the maintenance of families with children. The fact that fertility and the cultivation peak area are linked even at the regional level lends added weight to this argument.

Choosing an explanation

Therefore it can be argued both that changes in fertility rate explain the date when the cultivation peak was reached, and that the timing of the cultivation peak – which indicates there was a land shortage – points to a cause of falling fertility rates. These two explanations do not necessarily contradict each other. However, in order to appreciate that both the land shortage and child phase arguments have important roles to play in any understanding of the course of Swedish agriculture, a broader issue must also be heeded, namely the way in which demographic trends and wider societal
processes such as politics, social development, and economic change are interlinked.

In the past decade there has been an intense debate, especially among economists, about the role demographic transition has played in economic developments since the end of the eighteenth century.\(^\text{16}\) Demographic transition is the switch from high birth and death rates to low rates, something that in principle all countries in the world undergo, albeit at different times. The debate has led to two central findings: first, reduced mortality rates cannot only be seen to be the result of improved standards of living, but rather the contrary – improved health is a key precondition for economic growth; and second, lower fertility rates are perhaps the single most important factor in the timing of when a country will begin to see accelerated economic growth.\(^\text{17}\) The importance of health has been made clear in analyses on both the micro and macro levels. The centrality of falling fertility rates was first demonstrated in analyses of conditions in Eastern Asia, where the rapid drop in fertility rates in the 1950s, 1960s, and 1970s brought with it a radical improvement in the dependency ratios – the ratios between dependent age groups (children and the elderly) and the working-age population. This in turn led to rapid economic growth in countries such as Japan, Taiwan, South Korea, Singapore, Hong Kong, and China, while countries where the dependency ratio remains high, such as those in sub-Saharan Africa, have not experienced the same strong growth.\(^\text{18}\) The positive effects of falling dependency ratios on economic growth are known these days as the ‘demographic dividend’,\(^\text{19}\) referring to the fact that the drop in fertility rates heralded a return on the immense investment in human capital in the decades when large numbers of children had been born.

Unlike before, when demographic transition was thought to result from economic development, the new approach means that demographic transition is held to be the main reason why economic development has accelerated over the past two centuries. It has thus become very interesting to understand what lies behind a demographic transition as such. Generally, a transition begins with a fall in mortality rates, and in this the key factors have largely been identified, even if they differ somewhat by world region. More controversial is the issue of why this fall in mortality rates should lead, with a slight delay, to a fall in fertility rates.\(^\text{20}\) The idea that the fall in fertility rates depends on rapid economic development has largely been abandoned since it has been difficult to find the empirical evidence to support it.\(^\text{21}\) Certainly, rich countries are characterized by low fertility rates, but this stems instead from the fact that low fertility rates lead to economic growth,\(^\text{22}\) while, tellingly, at the point when their fertility rates began to drop, incomes were usually still low.\(^\text{23}\) On the other hand, there is a strong link between low infant mortality and low fertility rates. This has spawned the idea that people have fewer children when they realize that they no longer need a high fertility rate to compensate for the risk that their children will die young.\(^\text{24}\) More detailed analyses of this suggestion, however, have shown that it does not hold water. The fall in fertility rate is in truth far greater than might be justified by a lower mortality rate.\(^\text{25}\)

However, it is possible to combine the land shortage and education arguments. After all, one unyielding consequence of lower mortality rates is that population growth accelerates. In response to the population increase, there is an expansion in agriculture, often in the shape of land clearance. As long as there is new land to be had, or as long as farmland can be subdivided into smaller units without farms being left too small to be viable, it will remain possible for new generations to follow in their predecessors’ footsteps; when they reach marriageable age they can have the running of their own farm, and start a family in the same way as their parents did before them.\(^\text{26}\) There will be little in the way of incentive to postpone starting a family or to have fewer children; on the
contrary, on a farm that is set on expansion, children’s labour can often be put to good use. The problem comes when cultivation and intensification are taken to such lengths that the chances fade fast that their own children will manage to successfully establish themselves as farmers, as the cultivable land begins to run out, and the continued subdivision of their land results in farms insufficiently large to be viable. For a farming family in this situation there is much to commend their abandoning farming to give the children a better chance of a livelihood, and for this reason they prefer to see their children going to school and learning the three R’s. With such an education, their chances of gaining a foothold in the labour market outside agriculture increase, for at the same time as population growth increasingly imposed limitations on the expansion of agriculture, an increased population means greater opportunities for the growth of urban industries. When population density increases, local demand increases, which creates opportunities for specialized craftsmen, new shops, and even small industries to be established. Increased population density means that it is also more profitable to invest in infrastructure, which presents far greater opportunities to specialized businesses that require a relatively large market in order to succeed. As we have seen, increased population density also means that it is less costly to set up schools near to the children they cater for. All told, this means that increased population density in time means it is less attractive to farmers to plan on their children continuing with subsistence farming. Instead it will appear more and more attractive to prepare their children for an urban career that depends more on formal education than on the availability of farmland. As increasing numbers of parents choose this alternative, fertility rates will begin to fall, since individuals with a school education are more likely to practice family planning than those without. The emphasis on an urban career also makes it relatively speaking more expensive to have children. In subsistence farming, children can be used as labour, while children in town cannot help feed the family in the same way. That lower mortality rates leads to lower fertility rates can therefore be seen to be one result of a more rapid population growth creating a land shortage, strengthening incentives to get an education, and new ways of making a living making it more expensive to have children.

Once the fertility downswing is underway, it will also have consequences for farming. Research on Eastern Asia has shown that a drop in fertility rates leads to accelerating economic growth. The rapid growth is a result both of changes to agriculture and to other sectors of the economy. The way in which lower fertility rates impact on agriculture can be seen in a comparison of two imaginary families. The two families are identical until the point where they each have three children, at which point one family pronounces itself happy, while the other in time goes on to have a further two children. The effect on the families’ farms varies. Where the family of seven manages to get by, the family of five, with fewer mouths to feed, will have a surplus that can be sold. This is immensely important, since a central issue in agriculture’s role in economic development is whether agriculture can contribute to financing the build-up of an industrial sector. For this to be the case, an agricultural surplus is needed, and the simple answer is that with lower fertility rates this surplus almost creates itself.

The natural thing is for farmers to sell their surplus in a nearby town, with two results. First, the farmer will create a demand for goods from the urban sector — consumables such as cloth, utensils, or processed agricultural produce, or input goods for the farm such as inorganic fertilizers and agricultural implements. Lower fertility rates thus stimulate industrial development because agricultural demand increases. Second, the farmer’s sale of agricultural produce also means that the urban market is supplied with food or raw materials.
The food that a further two children would have consumed if the fertility rate had continued at a high level can instead be consumed by an industrial worker who works outside agriculture – labour has been transferred from agriculture to industry. One possible explanation for this is that the eldest children in the two hypothetical families turn fifteen just as the fifth child is born to the family of seven. In the family of seven, the eldest child will be needed about the farm to provide for the small siblings’ subsistence. In the family of five this is not necessary, leaving the fifteen-year-old free to move to the town and take a job in industry, and the family with an even greater surplus and one less mouth to feed.

The family of five’s surplus paves the way to the increased use of such things as inorganic fertilizers, better implements, and improved seed, all of which further increase productivity. Fewer children also means it is possible to specialize further, since less farmland has to be used to grow subsistence crops and more can be used to grow crops for sale. The modernization of agriculture is thus affected positively by lower birth-rates. At the same time, there are some downsides to there being fewer children. Available family labour will be smaller in the family of five than in the family of seven. The family of five will thus have to cut back on activities that require large quantities of labour of the type that children and young people can manage, including herding and labour-intensive crops such as potatoes or hay. The combination of more specialized agricultural production, the reduced availability of labour, and the reduced need for subsistence crops, can all contribute to marginal farmland being taken out of production.

What this shows is that both the effects of the land shortage on birth-rates and the birth-rates’ effect on agriculture serves merely to reinforce the link between the cultivation peak and fertility rates that one finds in the Swedish data. At the same time, I would argue that the development of agriculture, at least until the 1950s, cannot fully be understood unless there is due consideration of the fact that agriculture is an integrated part of a supply system, at the heart of which are family formation and successful reproduction. To those researching the ways in which agriculture evolves, it can seem self-evident that the people who are active in agriculture see it as the central focus of their lives. I would argue that this is not necessarily the case, but rather than the family may well be the focus, and that agriculture in the first instance is a means to secure one’s own family’s reproduction.

I would also suggest that the analysis presented here does not only shed light on the development of Swedish agriculture. Since the demographic transition is nothing if not a universal phenomenon, there are speaking reasons to see rising population, expanding agriculture, increasing population density, land shortage, increased incentives to go to school, falling fertility rates, the cultivation peak, and changing modes of farming, as processes that were repeated in many places around the world in the twentieth century.

One relevant example is the phenomenon that goes by the name ‘forest transition’, which has been much debated in recent years. This term can be seen as being closely related to maximum arable area, given that it refers to the extent of the forested area that in many countries first drops over a long period, then reaches a minimum, and finally increases again. If forestry is seen as the opposite of arable farming, forest transition can be seen as the mirror image of the spread and subsequent retreat of arable farming. The theoretical attempt to understand forest transition has yet to touch on the significance of population development, however.

“Safeguard our principal industry”

The strong link between agriculture and birth-rates in the first half of the twentieth century
is revealed not only by the correlation between the cultivation peak and fertility rates, but also by the fact that the children born in this period to a very large extent came from rural households. Between 1900 and 1910, some 100,000 children per annum were born in rural districts, and only some 30,000 in the towns. The proportion remained the same between 1910 and 1920. In the interwar period the town’s proportion of the birth-rate increased to just below 40 per cent, yet even so, in the 1930s slightly more children were born in rural districts than were born in the towns: 54,000 per annum in the rural districts, compared with 50,000 per annum in the towns.33

In other words, of those Swedes who were born in the first half of the twentieth century, the vast majority were country-dwellers. Even if perhaps most of these country children were eventually to move to the towns, they can still be seen as having been marked by their rural upbringing. As I have already indicated, at the start of the twentieth century Sweden’s rural districts were to a large extent characterized by a general determination to secure the coming generation’s livelihood. The rural memories that these generations were to carry with them were of a countryside that was approaching, or was verging on, the cultivation peak. Moreover, the largest number of memories would stem from those areas that more than the others were marked by a large growing generation, for the same reason that many of those who are still alive today come from families with six to eight children or more, even though the average family at the start of the twentieth century barely had more children than today. The explanation for why individual memory is not representative is that the larger families have more members to survive them than do small families.

The countryside’s function as society’s cradle is important to bear in mind when analysing the course of agricultural policy and regional policy from the 1930s onwards. If agriculture had been only one sector among many, it is possible that the crisis that hit farms in the interwar years would not have been countered by the introduction of extensive regulations and remedial measures. But agriculture was not one sector among many. As well as producing food, Swedish agricultural households had a key responsibility for the rising generation. The elimination of agricultural units would therefore have led to families with large numbers to feed being left penniless. Similar fears may also have lain behind the introduction of agricultural subsidies when the European Free Trade Association was established after the Second World War.

The fact that even in the post-war period, agriculture, despite its shrinking importance for the labour market, has been accorded special status in the form of subsidies and protection from foreign competition should be seen against the background of the number of Swedes who quite literally had their roots in farming.34 In the same way, the protection that regional policies extend to depopulated areas should be seen as being linked to the fact that many city-dwellers have their roots in those self-same regions.

Come the close of the twentieth century, and Sweden’s rural districts had completely lost their importance for the population’s reproduction that they had had until the 1950s. During the last three decades of the century, an average of 75,000 children per annum were born in the cities, suburbs, and larger towns and municipalities (those with more than 25,000 inhabitants). Only 28,000 children per annum were born in the sparsely populated rural districts, small municipalities, and commuter towns.35

One possible consequence of this change in the distribution of birthplaces is that agriculture at the end of the twentieth century not only lost even more of its importance for labour market, but also its status as Sweden’s staple industry in the minds of the general populace. For those who grew in the Swedish countryside, however, agriculture can still rep-
resent something more than a technological process that produces food; to them it can appear to be the very basis of their existence. It is doubtful whether agriculture has this status for the generations born after 1970.

This alteration can be illustrated by a few, bald figures. In 1930, 41 per cent of all Swedish children lived in farming households. In 1950 this figure had fallen to 24 percent, and in 1960 a mere 12 per cent.36

Agriculture and demography: two local examples

Värmland was the first province in Sweden to reach its cultivation peak. In the middle of Värmland, between Munkfors and Hågfor, on land on the inner side of one of Klärälven’s meander loops, lies Östra Skymnäs. Figure 2 is taken from a hundredal map of Östra Skymnäs and shows the situation in about 1895. At this point all the foreland right up to Klärälven was under cultivation, as was the opposite bank of the river north of Östra Skymnäs. Even Pusstbacken and Lillebergsheden were under cultivation. A large number of torp (crofts) are to be found in the eastern part of the map, at the first bend in the river. Östra Skymnäs had 359 inhabitants according to the census of 1890, of whom 102 were married (50 women and 52 men), and 18 were widows or widowers (8 and 10 respectively).37

In the province of Norrbotten, on the shores of Torefjärden, one of the Baltic’s most northerly bays, is the village of Sknäs, which in 1890 had almost exactly the same population – 364 – as Östra Skymnäs. The number of married people was higher in Sknäs, with 124 people (equal numbers of women and men), while 19 people were widows or widowers (11 and 8 respectively).

Despite the many similarities between Sknäs and Östra Skymnäs, the differences in terms of family constellation were considerable. In Sknäs, 52 per cent of the married men were under 40 years of age; in Östra Skymnäs only 36 per cent. Narrow it down to married men with their own land (freeholders or crofters) and the differences are even greater, for in this category only one man in four was under 40 in Östra Skymnäs, as against every other man in Sknäs.

That the married men in Sknäs were younger than the married men in Östra Skymnäs is echoed in the age distribution among the married women. Half the married women in Östra Skymnäs were of fertile age (under 30 years old). In Sknäs a startling 80 per cent of the married women were of fertile age. The difference in the proportion of young, married women was even greater: 32 per cent of the married women in Sknäs were in their twenties, against only 16 per cent in Östra Skymnäs. The reason is largely because it was more difficult for women to marry in Östra Skymnäs. In Östra Skymnäs, only 40 per cent of women aged 20–34 were married, against 60 per cent of the women of the same age in Sknäs.

One cannot exclude the possibility that these differences depended on land availability being more limited in Östra Skymnäs than in Sknäs. The hundredal map of Östra Skymnäs shows that the expansion of the farmland on the foreland itself had been pushed as far as it was possible to go. There had been a growth in the number of crofts, but the age of the crofters indicates that the crofts were not a recent addition. One of the men who was listed in the census as a settler was seventy years old. The idea that farmland had expanded onto marginal land in Östra Skymnäs is supported by a comparison between the nineteenth-century hundredal map and an economic map from 1967. Much of the land that is recorded as being arable on the hundredal map is no longer open ground on the economic map.

When it comes to Sknäs, there is no hundredal map, but a comparison of the map from the enclosure procedures in 1844 and an economic map from the 1950s shows a considerable increase in arable, even if the cartographic

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36. Malmberg, “Agriculture and Demography.”
37. Malmberg, “Agriculture and Demography.”
material does not permit us to give the expansion an exact date – although the fact that so many of the freeholders in Sikkä were young in 1890 would seem to indicate that it came relatively late. Another indicator of continued agricultural expansion at the turn of the twentieth century is the fact that the married, unlanded men, who in Östra Skymnä are generally described as loggers (inhysen), in Sikkä are almost all described as farm labourers (jordbruksarbetare). This category comprises a total of 14 married men in Sikkä, but is completely absent from Östra Skymnä. That the number of married farm labourers was so great in Sikkä reflects a considerable demand for labour that may well have had something to do with the expansion of farming there.

That Sikkä at the start of the twentieth

<table>
<thead>
<tr>
<th>Year</th>
<th>Töre</th>
<th>Norra Råda</th>
</tr>
</thead>
<tbody>
<tr>
<td>1890</td>
<td>3,172</td>
<td>3,939</td>
</tr>
<tr>
<td>1900</td>
<td>3,703</td>
<td>4,568</td>
</tr>
<tr>
<td>1910</td>
<td>4,394</td>
<td>5,128</td>
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<tr>
<td>1920</td>
<td>4,472</td>
<td>4,768</td>
</tr>
<tr>
<td>1930</td>
<td>4,544</td>
<td>4,458</td>
</tr>
<tr>
<td>1939</td>
<td>4,906</td>
<td>4,330</td>
</tr>
<tr>
<td>2000</td>
<td>2,529</td>
<td>2,781</td>
</tr>
</tbody>
</table>

**Figure 2. Draft of the hundredal map of Östra Skymnä (808), 1883–95. Klarälven is to the left, meandering through the countryside. A number of railways had been laid, primarily to make it easier to transport iron in the region. The arable areas were extensive, primarily on sedimentary soil. Source: Lantmäteriutbildningens arkiv.**

**Table 2. Population trends in the parishes of Töre and Norra Råda, 1890–2000. The figures for 1890–1910 have been interpolated on the basis of the data for the pastorate of Nederkalix and Norra Råda including Hagfors. Sources: Statistiska Centralbyrån, Summariska folkmängdskedjegrafiska från församlingarna m.fl. 1890–1939; Statistiska Centralbyrån, 2010.**
century was more dynamic is reflected in the fact that the parish of Töre, to which Siknäs belonged, saw its population continue to grow for far longer than Norra Råda, the parish which included Östra Skymnäs. In Norra Råda the population peaked in 1910, while it continued to grow in Töre until 1939. Both parishes have been characterized in the second half of the twentieth century by a large downturn in population. In 2000, Töre’s population was 20 per cent lower than it had been in 1890, while Norra Råda’s was almost 30 per cent lower.

Turning to Siknäs, we can see that it fared better than Östra Skymnäs. Today it is rated a dispersed settlement, as defined by Statistics Sweden, (‘småort’) and has some 140 permanent residents, while Östra Skymnäs’s population is too small even to be considered a dispersed settlement.

Conclusions

The main purpose of this chapter has been to describe how Swedish agricultural development in the twentieth century should in all important respects be seen as reflecting the demographic transformation of Sweden that got underway at the end of the nineteenth century. In the same way as the nineteenth century was marked by the early phases of the demographic transition, so the twentieth century was marked by its closing phases: a trend towards lower birth-rates and a dramatic shift in age distribution.

In 1900, Sweden found itself in an exposed position, with a baby boom that had to be fed and educated, and then ushered on to find work and start a family. All this was largely achieved by efforts pursued within the frame-
work of agricultural society. Once the turn-of-the-century baby-boomers had grown up this task was complete, and agriculture acquired a very different and perhaps less obvious role.

Today the same transformation process is underway in other parts of the world. Just as emigration was the solution for many Swedes when agriculture’s ability to expand could not keep pace with the rapid increase in population, today many make their way to Sweden looking for ways to make a living. With a demographically based understanding of social development, it becomes easy to see that people with different ethnic, cultural, and religious backgrounds often behave in much the same fashion when faced with the challenges posed by rapid demographic change. To analyse the interplay of population and agricultural development in Sweden in the twentieth century is therefore not just to understand how Swedish society was shaped. It also forms the basis for comprehending the challenges that people in the poorer countries of the world are facing today, and will face in future.

Notes
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