
DEMOGRAPHIC ORIGINS
OF THE EUROPEAN PROLETARIAT

Charles Tilly
University of Michigan

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University of Michigan
330 Packard Street
Ann Arbor, Michigan 48109

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Adam Smith and Karl Marx on the Proletariat's Growth

How did the European proletariat grow to its present enormous size? Notice what Adam Smith wrote two centuries ago: "The demand for those who live by wages naturally increases with the increase of national wealth, and cannot possibly increase without it" (Wealth of Nations, Book I, chapter 8). "Those who live by wages" is a short definition of the proletariat. "The liberal reward of labor, therefore," said Smith later on, "as it is the effect of increasing wealth, so it is the cause of increasing population. To complain of it is to lament over the necessary effect and cause of the greatest public prosperity." In Adam Smith's analysis, the increasing division of labor resulted from the rational disposition of the factors of production -- land, labor, and capital -- by those who controlled each of them. Since the increasing division of labor enhanced productivity, it increased the return to all factors of production, including labor. Indirectly, the rational disposition of resources led to the growth of that part of the population which lived from wages alone. It led to the growth of the proletariat.

But how did that growth occur? So far as I know, Adam Smith never analyzed the historical process in detail (see Coats 1967 and Spengler 1970 for indirect confirmation). Perhaps it seemed too obvious: wage-laborers multiplied because the demand for their labor increased. Parson Malthus' pessimistic gloss on Smith, after all, does little more than elaborate that basic relationship/ (Spengler 1945). Both Adam Smith and Thomas Malthus lived in a world in which landless laborers were already numerous. In that world, it was common bourgeois practice to wring hands over the decline of independent craftsmen and

yeomen, and to deplore the reckless breeding of the poor (for a convenient review, see Jantke 1965). Smith's innovation was to treat the growth of the proletariat as an inevitable, perhaps even desirable, consequence of increasing wealth.

Writing a century later, however, Karl Marx considered the historical process of proletarianization to be both fundamental and problematic. Chapters 25 to 32 of Das Kapital discuss at length the formation of the English proletariat. Marx denied emphatically that the smooth operation of demand accounted for the proletarianization of the English labor force. "The proletariat created by the breaking up of the bands of feudal retainers and by the forcible expropriation of the people from the soil," he wrote, "this 'free' proletariat could not possibly be absorbed by the nascent manufactures as fast as it was thrown upon the world" (Capital, chapter 28). Thus, according to Marx, the industrial reserve army which was essential to the operation of capitalist labor markets began to form. Note that Marx concentrated on rural, and especially agricultural, workers; only since his time has the term "proletarian" taken on its current connotation of large-shop manufacturing.

In general, Marx portrayed proletarianization as the forcible wresting of control over the means of production away from artisans and, especially, from peasants. "In the history of primitive accumulation," he declared at the end of chapter twenty-six,

all revolutions are epoch-making that act as levers for the capitalist class in course of formation; but, above all, those moments when great masses of men are suddenly and forcibly torn from their means of subsistence, and hurled as free and "unattached" proletarians on the labour-market. The expropriation of the agricultural producer, of the peasant, from the soil, is the basis of the whole process.

Thus the central fact was the creation of a rural proletariat, working mainly for wages in agriculture, but available at bargain rates for industrial production.

In so far as he discussed the changing size of the proletariat at all, Marx described two contradictory processes. He followed the classical economists, including Adam Smith, in seeing a general association between capital accumulation and the growth of the proletariat. Although Marx did not specify the population processes involved, a plausible reading of his text is that an increase in the total volume of wages permitted more children of existing proletarians to survive. In that reading, the death rate serves as the gatekeeper not only from, but also to the proletariat. At one point, however, Marx suggested that the substitution of child labor for adult labor encouraged the poor to marry young and to bear many children; if so, changes in the marriage and birth rates were involved as well.

Marx' main argument, in any case, ran in the other direction. Under capitalism, he argued, employers extracted surplus value from the labor power they hired, essentially by squeezing more value in production from workers than it cost to hire them. Then the capitalists reinvested their surplus in the means of production. As a result, the fixed capital represented by the means of production necessarily increased faster than the variable capital directly committed to the employment of labor. Economies of scale alone would have produced that effect of capital accumulation, but both the centralization of capital in large firms and the imposition of more intensive labor discipline accelerated it. In consequence, according to Marx, the demand for labor power increased much more slowly

than capital accumulated.

As workers became increasingly redundant, the famous Industrial Reserve Army -- whose existence presumably guaranteed the holding near subsistence of the wage for those who worked -- came into being. That was, to Marx' eyes, the central demographic process of capitalism. It was, he said, a cruel peculiarity of the system:

The labouring population therefore produces, along with the accumulation of capital produced by it, the means by which itself is made relatively superfluous, is turned into a relative surplus-population; and it does this to an always increasing extent. This is a law of population peculiar to the capitalist mode of production; and in fact every special historic mode of production has its own special laws of population, historically valid within its limits alone (Capital, chapter 25).

Later in the same chapter, Marx briefly mentioned the declining rate of growth of the whole English population as if it supported his analysis. In general, however, Marx seems to have reasoned differently: First, the important increases in the number of proletarians occurred in bursts of expropriation such as the enclosures. Second, once people were proletarians, they more or less reproduced themselves: proletarians begat prole in roughly constant numbers. If that is the case, the growth of the proletariat directly measures both the progress of expropriation and the current extent of exploitation.

In his notebooks of 1857 and 1858, the famous Grundrisse, Marx had heaped scorn upon Malthus. Malthus, Marx complained, had confused the specific conditions of capitalism with a general law of population growth: "It is Malthus who abstracts from these specific historic laws of the movement of population, which are indeed the history of the nature of humanity, the natural laws, but natural laws of humanity only at a specific historic development, with a development of the forces of production determined by humanity's own process of history" (Marx 1973: 606). In the discussion of Malthus, Marx appeared to accept a hedged version of Malthus' thesis: that under capitalism population did, indeed, tend to grow faster than the means of subsistence, and thus to encounter devastating positive checks. If so, Marx was admitting implicitly that natural increase played a significant part in the proletariat's growth. In any case, his main argument was that "overpopulation" was not an objective external condition which somehow weighed on the system of production, but a consequence of the social organization linking different sorts of people to the existing means of production. "Never a relation to a non-existent absolute mass of means of subsistence," he wrote in his notebook,

but rather relation to the conditions of reproduction, of the production of these means, including likewise the conditions of reproduction of human beings, of the total population, or relative surplus population. This surplus purely relative: in no way related to the means of subsistence as such, but rather to the mode of producing them (Marx 1973: 607-608).

Then he bent the discussion back to an analysis of the tendency of capitalism

to separate increasing numbers of workers from the means of production. Thus Marx was clear enough about the structural conditions favoring the growth of a proletariat, but vague about the demographic processes involved.

Here sociology and history come together. Marx' analysis, and his apparent indecision about the relevant demographic mechanisms, provide a prime opportunity for complementary work by people from the two disciplines. There is the opportunity to verify the main lines of Marx' analysis -- for example, the idea of spurts of proletarianization as the consequence of massive expropriation. There is the opportunity to specify the different paths by which people moved from artisanal or peasant production into various forms of wage labor. There is the opportunity to assign relative weights to those paths: which ones bore the most traffic? There is the opportunity to integrate them into a general account of the flows of people by which the largely peasant and artisanal European population of 1500 or 1600 became the overwhelmingly proletarian European population of 1900 and later.

How and why did that great shift occur? Why in Europe rather than elsewhere? In the century since Marx, one version or another of that double question has dominated the agenda of modern European economic and social history. Some of the debate has pivoted on the facts: how many yeomen, for example, did enclosures actually displace? Some of the debate has concerned the proper way to state the questions: Weber and Tawney differed over the appropriate Problemstellung as much as over the historical facts. And much of the debate has dealt with explanations: why did capitalism flourish earlier in Britain than in Prussia?

Because the questions are vast and compelling, fragments of the debate on proletarianization -- including the debate on the population changes involved -- appear in widely scattered literatures. For example, historians of industrialization (especially British industrialization) have carried on a long discussion of labor supply in the industrial revolution; the discussion pivots on the demographic origins of the proletariat (e.g. Chambers 1953, Cohen and Weitzman 1975, Coleman 1955-56, Cooper 1967, Eriksson and Rogers 1978, Habakkuk 1971, Hohorst 1977, Jones 1964, Kellenbenz 1975, Lazonick 1974, Lequin 1977, Martinus 1967, Matzerath 1978, Milward and Saul 1973, Saville 1969, Schofer 1975, Schön 1972, L. Tilly 1977, R. and C. Tilly 1971, Wrigley 1961). Demographers who have looked to the European experience for guidance in understanding the transition from high to low fertility and mortality throughout the world have repeatedly asked each other whether massive proletarianization was a by-product, a cause, or a counter-current of that transition in Europe (e.g. Berkner and Mendels 1978, Gaunt 1977, Haines 1979, Knodel and van de Walle 1979, Kollmann 1977, Kriedte, Medick and Schlumbohm and regional 1977, Lestaege 1977, McKenna 1974). Local/historians have edged into the demographic problem by discovering, in place after place, similar transformations of the labor force: the disproportionate increase of proletarian occupations and industries (e.g. Ågren et al. 1973, Åkerman, Johansen and Gaunt 1978, Bourget 1954, Braun 1960, 1965, Chambers 1957, Corbin 1975, Deprez 1965, Foster 1974, Gachwind 1977, Hasquin 1971, Jasper 1977, Kisch, 1959, 1967, 1968, Klima 1974, Levine 1977, Lundqvist 1977, Öhngren 1974, Purš 1965a, 1965b, Schneider and Schneider 1976, Scott 1974, Spufford 1976, Vilar 1962, de Vries 1975, Wrightson and Levine 1979). Students of poverty and of control over the poor have necessarily brushed against the problem of proletarianization, but have not posed the demographic changes very directly or effectively (e.g. Abel 1974, Coats 1976, Davis 1968, Deyon 1967b, Gutton 1974, Hufton 1974, Kaplow 1972, Lis and Soly 1979, Slack 1974). Analysts who have sought self-consciously to

trace the process of proletarianization have commonly come from the ranks not of historians but of economists and sociologists; they have focused, by and large, on the expropriation and disciplining of wage-workers, rather than on the development of wage-labor itself (e.g. Aronowitz 1978, Bendix 1956, Burawoy 1979, Callie 1978, Gartman 1978, Gintis 1976, Hardach 1969, Jantke 1965, Marglin 1974, Montgomery 1976, Moore and Feldman 1960, Muttez 1966, Pellicani 1973, Perroux 1970, Stone 1974, Thompson 1967, Vester 1970, Zwahr 1971). Finally, the builders and critics of Marxist schemata concerning the general development of capitalism have had to commit themselves to one view or another of the origins of the proletariat (e.g. Anderson 1974, Braudel 1967, Brenner 1976, 1977, Chaunu 1970, Cohen 1978, Croot and Parker 1978, Dobb 1963, Kellenbenz 1976, Landes 1969, Le Roy Ladurie 1974, Moore 1966, Redlich and Freudenberg 1964, Sereni 1948, Tortella Casares 1973, de Vries 1976, Wallerstein 1974, 1980, Wrigley 1972). These many overlapping enterprises offer the student of proletarianization a rich, broad and vigorous literature. The literature's richness, breadth and vigor, however, make the task of synthesis mind-breaking.

I do not claim to have surveyed all the relevant sources, much less to have synthesized them. In this paper, I aim merely to tidy up a small but crucial corner of this vast area: the demographic corner. The paper discusses where population processes fit into general accounts of Europe's proletarianization. It specifies which features of those population processes have to be explained and why they are problematic, offers a limited review of existing knowledge concerning those processes, and proposes some tentative explanations of the particular paths taken by European proletarianization. On its way, the paper spends more time on concepts and techniques than any reader will enjoy; conceptual and technical questions, it turns out, comprise a significant part of the difficulty in understanding how proletarianization occurred. Nevertheless, the paper's main point is to pursue into the demographic

sphere two of Marx' central insights concerning proletarianization: that the basic population processes respond to the logic of capitalism, instead of being somehow exogenous to it; that the strategies of capitalists themselves determine the form and pace of proletarianization.

Components of Growth

One dull, routine sociological procedure which promises to help the search for the origins of the European proletariat is to break the search into three parts. The first part is the analysis of components of growth. The second, the explanation of the individual components and their interactions. The third, the integration of those partial explanations into a general account of the process. Let me stress at once that these are logical subdivisions of the task, not distinct temporal stages. If we don't begin with a piece of the third part -- with a tentative account of the entire process of proletarianization -- we are quite likely to wander through the analysis of components of growth, and to stumble through the explanation of individual components and their interactions. The secret is to begin with a tentative account which is clearly verifiable, falsifiable and correctible. Or, better yet, two or three competing accounts which are clearly verifiable, falsifiable, and correctible. Accounts built, let us say, on the arguments of Adam Smith and Karl Marx.

Components of growth? At its simplest, the analysis consists of defining precisely the change being analyzed, preparing a logically exhaustive list of the components of that change, and estimating the contribution of each component to the change as a whole. In the case of

European proletarianization, we must begin with working definitions of "Europe" and "proletarian". That means deciding what to do with Iceland, Constantinople, Malta, the Azores, and so on. It also means deciding whether it is possible to be a little bit proletarian -- for example, whether the independent weaver who hires himself out for the harvest qualifies as a proletarian, as one quarter of a proletarian, or as no proletarian at all. What about his young children? Uninteresting decisions, these, except that they significantly affect the results of the analysis.

These dull but crucial decisions made, we can begin to ask how the absolute number and the proportion of the European population in the category "proletarian" changed from, say, 1500 to 1900. We'll come back to guesses at the real numbers later. For now, the thing to notice is that we can break down those numbers into geographic, temporal and, most important, logical components. We may ask where the transformation of non-proletarian populations into proletarian populations occurred. Did it happen mainly in areas of advanced capitalism? We may ask when the transformation occurred. Did the process accelerate greatly with the expansion of large-scale manufacturing after 1800? We may also ask how it happened. But the how, in this case, concerns the logical components of the change.

If we turn to standard demographic accounting procedures, we find three logical possibilities. Each is in turn the resultant of two possible changes. The three logical possibilities are social mobility, natural increase and net migration. Marx stressed social mobility: the movement of a particular social unit from one category to another as a consequence of an alteration in its own characteristics or relationships. If individuals

are our social units, every person who, in his/her own lifetime, loses control over his or her means of production and moves into wage labor adds to the toll of proletarianization. Thus all landowning peasants who lose their land and become agricultural wage-workers count. However, all wage-workers who set up business for themselves subtract themselves from the toll of proletarianization. In fact, the same individual often oscillates between the two categories throughout his or her lifetime. The net effect of all such moves across the boundary is the component of social mobility.

Natural increase is the resultant of births and deaths. If I read him aright, Marx' implicit assumption was that natural increase was an unimportant component of the growth of the European proletariat: the deaths more or less balanced out the births, while net enlargements of the proletariat depended on new entries by people who began life as non-proletarians. This is where the components-of-growth analysis gets interesting. For several alternative possibilities exist. Given their vulnerability to infectious disease, starvation and war, proletarians sometimes underwent a natural decrease: deaths exceeded births. The question is: how often and how much? If natural decrease were the normal situation of proletarians, the proletarian population would be in something like the situation of most pre-industrial cities: they would have to recruit substantial numbers of newcomers merely to maintain their current size. To grow, they would have to recruit very large numbers indeed.

It is also possible that the normal situation of proletarians was for their birth rates to run above their death rates. In that case, the proletarian population could grow without any new recruitment of non-proletarians. If the proletarian rate of natural increase were higher than

that of the population as a whole, the proletarian share of the total population would tend to rise, even in the absence of lifetime mobility from non-proletarian to proletarian. With additional permutations of fertility and mortality, still further alternatives are quite possible; for example, the proletarian rate of natural increase could have risen over time.

The third component -- net migration -- likewise offers multiple possibilities. If we are considering the European population as a whole, the migration that matters consists of moves of proletarians into and out of the continent. Because that component, too, sums up numerous losses and gains, its overall effect may have been nil, a substantial addition to the proletariat, a substantial subtraction from the proletariat, a change over time, or something else. If we start considering migration into and out of the proletarian populations of different European regions, the problem becomes more complex and interesting.

To recapitulate: as in any population change, we can break down the increase of the European proletarian population from 1500 to 1900 (or for any other interval) in terms of a standard accounting equation:

$$P_2 = P_1 + (IC - OC) + (B - D) + (IM - OM) + e$$

where P_1 and P_2 are the populations at the two points in time, IC and OC are the numbers of persons who make lifetime moves into the category and out of it, B and D are births and deaths of members of the category, IM and OM are in-migration and out-migration, and e is the measurement error summed over all these observations.

The Importance of Growth Components

Now, why should anyone care about these hypothetical numbers? For more reasons than one. First, if we are to attempt any general account of Europe's proletarianization, we have no choice but to formulate hypotheses

about the components of growth. The hypotheses may be implicit, and they may be very crude; they may consist, for example, of assigning an indefinitely large positive value to the net effect of lifetime moves and zero values to all the other components. That is the tone of Marx' analysis. Adam Smith, on the other hand, wrote as if natural increase were the only component differing significantly from zero. Thus in the absence of any exact numbers, the simple knowledge of which components were positive or negative, large or small, would give us the means of judging whether Marx' formulation, Smith's formulation, or some modification of one or the other, was more adequate.

The choice is not merely hypothetical. Although the problem has often been badly posed, how the proletariat grew figures somehow in every account of industrialization and every history of the working class. Speaking of Sweden from 1750 to 1850, Christer Winberg points out that the peasantry increased by about 10 percent while the landless classes of the countryside more than quadrupled. "The dominant interpretation of this development," he reports,

can be summarized as follows: An important part is played by the "autonomous death-rate", i.e. a death-rate that remains relatively autonomous in relation to the economic development. Particularly from c. 1810 onwards, the decline of the death-rate was due to a series of exogenous factors, such as smallpox vaccination, the peace period from 1814 onwards and the cultivation of the potato. The result was a rapid increase in population that led to a subsequent proletarianization. According to certain authors, the population increase was "too rapid" in relation to the clearing of land and this factor should consequently have been the cause of "over-population."

According to others, although the clearing of land might have been as rapid as the increase in population, the possibilities of setting up new farms did not increase to the same extent. The number of farms was restricted by different institutional factors -- village structure, the nature of inheritance, restrictive law-making, etc. (Winberg 1975: 331; cf. Utterström 1957: I, 22-68).

"This interpretation," he continues, "is not based on any coherent theory."

Winberg counters with an argument having five important components:

1. On the whole, the landless population of the early eighteenth century did not constitute a distinct social class, since it consisted largely of widowed old people and other non-producers; the separate class formed mainly after 1750.
2. The peasant population of the eighteenth century generally maintained an implicit system of population control in which, for example, declines in mortality normally produced a visible narrowing of opportunities for employment, which in turn led young people to delay marriage and to have fewer children.
3. After 1750, the widespread reorganization of rural estates by their landlords turned many tenants into landless laborers.
4. Peasant villages themselves became increasingly stratified, with many smallholders likewise becoming landless laborers.
5. In the process, the rural population as a whole broke out of the older, implicit system of population control and moved toward strategies of relatively early marriage and high fertility.

Winberg documents these generalizations by means of a close study of a sample of Swedish rural parishes. In those parishes, he finds a general tendency for the landless to marry later and have fewer children than the full-fledged peasantry. He also finds a small movement from landless labor into landholding and a very large move in the opposite direction; the bulk of the increase in the rural proletariat, in his analysis, was

attributable to the unequal balance between these flows. Thus Winberg ends up assigning central importance to social mobility. Yet he by no means eliminates natural increase from the picture. Swedish villages, however, are not the whole of Europe. We must find out how generally Winberg's model of proletarianization applies elsewhere.

There is a second reason for concern about the components of growth. The relative weight and direction of the three components make a genuine difference to our understanding of the historical experience of proletarianization. To the extent that lifetime moves into the proletariat comprised the dominant process, we might expect a good deal of proletarian action to consist of efforts to retain or regain individual control over the means of production. On the other hand, that same extensive recruitment through lifetime moves would make it more difficult to account for the persistence of an autonomous proletarian culture, enduring from one generation to the next. To the extent that natural increase was the main source of growth in the proletariat, we would find it easy to understand autonomous, persistent proletarian culture, but hard to account for artisanal and peasant themes in that culture. To the extent that net migration was the primary source, we might expect the proletariat to be the locus not only of alienation but of aliens, and to be correspondingly resistant to unification. The contrasting portraits of proletarian experience which come to us from, say, E.P. Thompson and Louis Chevalier may result in part from their having studied populations which differed

significantly in these regards, or from their having implicitly assumed differing configurations of social mobility, natural increase, and net migration.

Third, the composition of each of the three major components matters as well. Zero net migration over a long period may result from no moves in either direction, from large but exactly equal flows of definitive in-migrants and definitive out-migrants, from numerous circular migrants who spend some time at the destination and then return to their points of origin, and from a number of other equalizing migration patterns. These are very different social situations. They have very different implications for social control, proletarian culture, class conflict and the recruitment of an industrial labor force.

Positive or negative net migration may likewise result from a wide variety of migratory patterns, each affecting life at the destination in different ways. The same observation holds for the sub-components of social mobility: temporary or definitive moves into the proletariat, temporary or definitive moves out of the proletariat. Clearly it holds for births and deaths as well. Consider the difference between

a) slight natural increase due to high fertility which is almost balanced by high mortality

and

b) slight natural increase due to low fertility which is with even lower mortality.

That is the difference between the death-ridden experience of the sixteenth century and the long life of the twentieth. If we want to understand the quality of proletarian experience, we will have to make that distinction very clearly.

The components of growth matter, finally, because their relative magnitudes bear directly on two continuing debates in European history. The two debates overlap. The first concerns the source of labor supply in the industrial revolution, the second the reasons for Europe's rapid population growth in the eighteenth and nineteenth centuries (for summaries of the debates, see Habakkuk 1971 and McKeown 1976). The debate about labor supply echoes the differences between Smith and Marx, pitting explanations in which the expropriation of peasants and artisans figures prominently against explanations in which population growth is a relatively smooth, automatic response to new opportunities for employment/ (see Lazonick 1974). The debate about population growth begins with the fact that, over Europe as a whole, natural increase accelerated markedly during the eighteenth century and continued rapid into the nineteenth. The debate pivots around the extent to which declines in mortality due to life-saving technical improvements in medicine, sanitation, or nutrition (as opposed to more general improvements in the standard of living, temporary increases in fertility, or other alternatives) explain the acceleration of natural increase.

In both debates, the places of mortality changes and fertility changes in the growth of landless labor are questions of central importance. If, for example, the growth of the proletariat was due mainly to decreasing mortality attributable to an improving standard of living, both the expropriation theory of labor supply and the fertility-increase interpretation of population growth become less credible. To make such distinctions, we do not need the precise numbers. But we do need to consider the full set of components of growth.

It is a good thing we don't need the precise numbers. If we did, the task would be impossible in our lifetimes. Although the methods of archeology, paleobotany, and historical demography may one day converge on fine estimating procedures for the European population, at present we have

only a crude sense of the grand totals. What is more, we have no large-scale estimates of the proletarian population. We face one of those recurrent historiographical ironies: the ideas of "labor force" and "employment" are at once essential to the keeping of the sorts of statistics we need, and contingent on the very process we hope to trace: proletarianization. In the absence of capitalized firms and extensive wage-labor, no one bothers to do the requisite bookkeeping. Generally speaking, we cannot look to the statistical reports of national states before the full bloom of nineteenth-century proletarianization. For earlier periods, we must combine analysis of trends in small areas which historians have studied intensively with indirect inferences from evidence concerning other processes which are somehow connected with proletarianization.

Principles of Proletarianization

Before examining trends and making inferences, however, we had better get some definitions and principles straight. Definitions, to begin with. Whatever practical separation of proletarians from non-proletarians we adopt, we must keep in mind that the process of proletarianization has two logically distinct components:

- a) the separation of workers from control of the means of production: expropriation, for short;
- b) increasing dependence of workers on the sale of their labor power: wage work for short.

In Marx's analysis, both expropriation and the extension of wage work qualify

as forms of alienation. Together, expropriation and wage work constitute the form of alienation we call proletarianization.

Although expropriation and wage work have a strong historical connection -- that is, after all, one of this essay's premises -- the connection is not a necessary one. Sometimes one component changes without the other, or even changes in the opposite direction. The enservment of European peasants, for example, certainly reduced their control of the land they tilled, but it did not ordinarily increase their dependence on wages for survival. Instead, landlords commonly assigned households to subsistence plots, and forced each household to deliver some combination of monetary dues, agricultural products, and labor services. Expropriation increased, but wage work may well have declined. In recent times, mine and factory workers who were already fully dependent on wages have often confronted bosses who were seeking to weaken the workers' control of the pace or quality of production by subdividing tasks, imposing time-discipline, or applying piece rates (see, e.g. Thompson 1967, Montgomery 1976). In these cases, expropriation occurred without an increase in wage work. The opposite case is also possible, although it is surely rarer: in nineteenth-century Europe, for instance, impoverished farm workers sometimes alternated between mowing by the job and mowing by the day. Mowing by the day increases wage work without necessarily decreasing workers' control over the means of production.

In principle, then, the two components of proletarianization -- expropriation and wage work -- vary in partial independence from each other. The extent and pace of proletarianization are, by definition, resultants

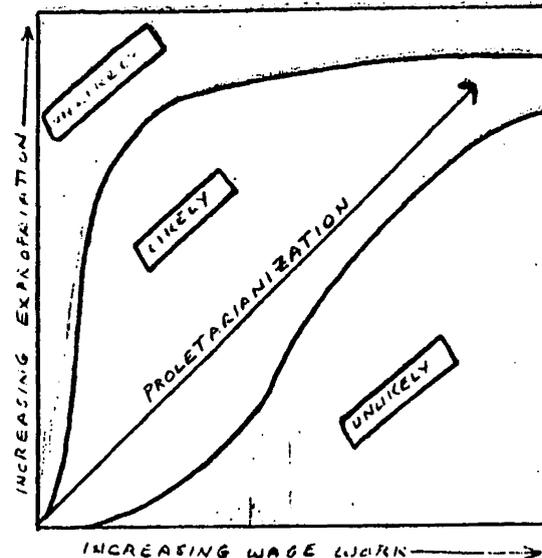
of the two. Figure 1 lays out the definition schematically. It also sketches four rough hypotheses concerning the extent and character of the two components' covariation under capitalism:

1. In general, expropriation and wage work increase together.
2. However, considerable expropriation sometimes occurs without changes in wage work.
3. Except at low levels of proletarianization, wage work rarely increases [or, for that matter, decreases] without corresponding changes in expropriation.
4. At the extreme, nevertheless, it is less likely -- even under capitalism -- that workers will be completely dislodged from control over the means of production than that they will become entirely dependent on wages.

My reasoning is simple: employers do not value wage work for its own sake. They impose wage work as a means of accomplishing expropriation, but not vice versa. To the extent that they can take control of labor power without paying wages, they do so. The major exception to the rule comes at low levels of proletarianization, where landlords and capitalists sometimes prefer the payment of a money wage to the provision of subsistence in kind.

The reasoning continues: employers seek to minimize the price they pay for labor power, as the standard Marxist analysis says, in order to maximize their return from the labor applied to production (Gartman 1978, Gintis 1976). But they expropriate all factors of production, including land in order to control the deployment of those factors in the service of increased return. Extensive proletarianization is therefore likely to occur only where the payment of wages is a relatively attractive means of expropriating labor power -- because the need for labor is highly variable, because

Figure 1. The Components of Proletarianization and their Likely Covariation



neither custom nor force will suffice, or for some other reason. At the extreme, however, the requirements of production themselves set greater limits on expropriation than they do on wage work: the costs of subdividing and degrading complex tasks eventually become prohibitive, and the worker whose skill and discretion make a difference to the quantity and quality of the product always has some vestige of bargaining power (see Aronowitz 1978).

Following these leads, let us define a rough-and-ready expression for the rate of any population's proletarianization:

$$\frac{d(\text{expropriation} \times \text{wage-dependence})}{d(\text{total population})}$$

If we think of the expression's numerator as representing the rate of change in the total labor power supplied under conditions of expropriation and wage dependence, then the expression tells us that whether proletarianization, deproletarianization, or no change is occurring depends on the relationship between two rates: those of expropriation/wage-dependence and of total population growth. In a further simplification, we may treat the number of positions occupied by workers who have essentially no control over the means of production as an approximation of the current state of expropriation \times wage-dependence; we may consider the total workforce as consisting of those positions plus all positions occupied by workers who do have some control over the means of production. These simplifications granted, an even rougher and readier expression for the rate of proletarianization is:

$$1 - \frac{d[\text{increase of positions controlling means of production}]}{d[\text{increase of total population}]}$$

According to this statement of the problem, the slower the increase in

positions occupied by people who have some control over their means of production, and the faster the increase of the total population, the more rapidly the population proletarianizes.

Note how this approach works. Note especially how it does not work. It does not equate impoverishment or immiseration with proletarianization; so far as the definition is concerned, the rise or fall of real income is irrelevant to the extent of proletarianization. Nor does wealth as such figure in the definition of the proletariat; to the extent that household wealth consists of non-productive goods -- television sets, automobiles, and so on -- a household can be wealthy and yet proletarian. Nor do style of life, education, skill, or locus of employment, in themselves, become criteria of proletarianization. There is no requirement of consciousness: in principle, an expropriated wage worker might well think of herself as a full-time member of the bourgeoisie. In this approach, the idea of a "new working class" consisting of skilled technicians, professionals and researchers in science-sector industries is no contradiction in terms. The concept does not require that proletarians be factory workers, or even be producing commodities. Not that income, wealth, life style, education, skill, locus of employment, consciousness or productive position are trivial matters; far from it. But the concepts adopted here make the relationships of these important aspects of social life to proletarianization questions of fact rather than matters of definition.

The treatment of proletarianization as a resultant of expropriation and wage work neither assumes that the process continues indefinitely in one direction nor ties the proletariat by definition to capitalism. Both the continuity of the trend and the extent of its dependence on capitalism become questions for theory and for research. Worker-participation schemes, for example, do sometimes increase worker control of production decisions somewhat, and occasionally reduce the dependence of workers on wages (see Espinosa and Zimbalist 1978, Korpi 1978, Stephens 1980). To that small extent, they move the workforce's average position toward the lower left-hand corner of our diagram; they deproletarianize. One could reasonably argue, on the other hand, that socialist regimes such as that of the Soviet Union have adopted capitalists' methods with a vengeance, using the full power of the state to accelerate expropriation and extend wage work in the name of the workers; they have been great proletarianizers. That fact has led many observers to conclude that proletarianization has no special tie to capitalism, but results inevitably from any form of industrialization. In my view, however,

1. Over the past few centuries, the association between the development of capitalism and the growth of proletarianization has been strong enough to indicate that, in general, one causes the other.
2. The association between capital concentration and proletarianization in agriculture as well as other forms of non-industrial production makes dubious the idea that "industrialization" is proletarianization's necessary condition.
3. On the whole, capitalists acquire a greater interest in expropriation and wage work than do other sorts of powerholders.
4. When socialists push proletarianization, they do so in imitation of capitalists.

Fortunately for the pursuit of this paper's purposes, only the first two propositions matter greatly to the search for the demographic origins of the European proletariat. During most of the European experience since 1500, capitalists have stood at the center of the proletarianizing process.

My approach, to be sure, rests on a guiding hypothesis: that over the long run expropriation and wage work were, and are, more fundamental than income, wealth, life style, and so on. More fundamental? I mean that changes in expropriation and in dependence on wage have wider ramifications in everyday social life than changes in income, wealth, et cetera. I also mean that to an important degree changes in expropriation and wage-dependence cause changes in income, wealth, life style, and so on. At this point we move out of the simple, arbitrary world of concepts. We begin working with arguments which are open to empirical challenge, and to theoretical scrutiny as well.

Explaining Proletarianization

Remember the crude expression for the rate of proletarianization:

$$dP = 1 - \left(\frac{d [\text{increase of positions controlling means of production}]}{d [\text{increase of total population}]} \right)$$

If the rate is greater than 1, the population is proletarianizing. If it is less than 1, the population is deproletarianizing. If it stands at or near 1, the population's structure is remaining about the same. My general argument is elementary, perhaps obvious. The rate of increase of positions whose occupants have some control over the means of production is:

1. a direct function of changes in the demand for goods and services;
2. an inverse function of the cost of establishing new units;
3. an inverse function of the concentration of capital;
4. an inverse function of the coercive power of employers.

The mechanisms by which these variables affect the increase of non-proletarian positions are mainly matters of the number, size, and internal organization of producing units: concentration or deconcentration of control over production decisions within producing units, growth or decline in the average size of producing units, elimination or consolidation of producing units which already exist, limits on the creation of new producing units, increases or decreases in the amount of labor drawn from the average worker.

The most obvious illustrations of these mechanisms at work come from periods and places in which a small number of producers were expanding their scale of production at the expense of their neighbors. In his old but still useful analysis of the growth of a rural proletariat in England, William Hasbach gave center stage to engrossing: the building up of large farms by a few active landlords. Here is his summary of the background conditions for engrossing:

They were, first, the more luxurious standard of life adopted by the landlord class, and their consequent need of a larger income; secondly, the enclosures, for the most part results of that need; then the increased price of provisions, to which the enclosures contributed; next the system of the large farm, pioneered about this same period; and finally the new method of cultivation, which demanded men of a different class and larger capital. But besides these there were other forces at work. There was the attraction which the great industry, then just developing, exercised on capacity, enterprise and capital. And there were the indirect taxes, imposed to pay the interest on the growing national debt rolled up by trade wars and colonial wars, which of course increased the cost of living (Hasbach 1920: 103-104).

Under these conditions, according to Hasbach, those who had the power increased their holdings, invested and reinvested their capital, shifted to labor-efficient farming techniques, and squeezed smallholders, tenants and squatters off the land, into agricultural or industrial wage-labor. In our terms, engrossing directly and strongly reduced the number of non-proletarian positions in rural areas: the size of producing units increased, their number declined, production decisions concentrated, existing units disappeared, and the possibility of creating new units decreased. Behind these changes lay all the general conditions for proletarianization we have already reviewed: a rising demand for goods and services, an increasing cost of establishing new units, a concentration of capital, and a growing coercive power of employers.

We begin with the most obvious part: changes in the demand for goods and services directly affect the rate at which new producing units come into being. They also directly affect the rate at which existing units change scale. Since changes in demand likewise affect the rate of population growth, however, they have no necessary effects on the rate of proletarianization. Although economies of scale may well result from expanded demand, those economies have no reliable effects on the division of labor between proletarian and non-proletarian producers. All other things being equal, the system simply reproduces itself on a larger scale. In modern Europe, for example, household production proved itself enormously elastic in response to the demand for textiles, woodworking, metalcrafting and similar goods. Beyond some point of expansion, on the other hand, the cost of establishing new units often rises, since established producers squeeze the newcomers, the costs of the requisite materials and equipment rise, and/or the quality of available resources declines. The theorem of diminishing marginal returns in agriculture rests on just such an observation of the effects of bringing marginal land into cultivation.

From the perspective of proletarianization, however, the central process is the concentration of capital. When small producers become capitalists and when petty capitalists become big capitalists; they "increase the share of all means of production they control, and they expand the amount of labor power they buy from others. Enclosing landlords, manufacturers who drive artisanal competitors out of business, local authorities who restrict the number of available farms, peasants who take on additional hired hands, masters who expand the numbers of their journeymen or apprentices, and merchants who build up networks of dependent domestic producers are all agents of proletarianization.

Broadly speaking, anyone who has an interest in buying labor power also has an interest in proletarianization. The transformation of workers into proletarians serves the employer in several different ways: by expanding the employer's power to redirect the factors of production in search of the maximum return; by increasing the employer's ability to capture the existing returns from labor; by externalizing some of the costs of maintaining the workforce. Each of these advantages to the employer, however, entails disadvantages for other parties, especially the workers themselves. Workers have investments in their skills, and therefore in allocations of production which often contradict those which most favor the employer. I authorities often have an interest in maintaining existing uses of land, labor or commodities in order to assure their revenues from taxation. Rentiers often have an interest in reliable rents from the very same land which capitalists want to commit to new uses. Workers have a direct interest in holding on to the returns from their labor. And the externalization of maintenance costs -- supplying food, finding revenue in times of unemployment, caring for the ill, and so on -- is likely to shift the burden to workers' households as well as to the community at large. Even if a giant neoclassical cost-benefit analysis gives the net advantage to proletarianization,

therefore, the immediate interests of most of the parties directly involved dictate determined resistance. The employer's interest does not automatically prevail.

As North and Thomas (who have, in fact, conducted something like a giant neoclassical cost-benefit analysis of capitalist property relations) suggest, one of the most important conditions promoting the growth of wage-labor is the emergence of a state which supports the consolidation of property into disposable bundles, and guarantees the owner a major part of the return from that property's use (North and Thomas 1973). I am not so sure as North and Thomas that in the two leading examples, the Netherlands and England, the property-confirming state developed before capitalist property relations were widespread. Indeed, Alán Macfarlane has recently argued that a version of capitalist property was already quite visible in thirteenth-century England (Macfarlane 1978). Yet the Dutch and English states surely did favor the consolidation of property into disposable bundles.

More generally, any conditions which augment the coercive power of employers favor proletarianization; the coincidence of economic and political power in the same capitalist hands, the outlawing of workers' organizations, the monopolization of food or land by employers, and the presence of surplus labor all make it easier to expropriate the workers. But with this last item -- the presence of surplus labor -- we pass to the other side of the workforce/controlling-positions ratio. We enter an area of intense controversy.

The question is: how and why does the total workforce increase?

For practical purposes, we may concentrate on why the population as a whole increases. That simplification glides past several fascinating questions:

- how the changing age structure produced by alterations in fertility and mortality affects the proportion of the population in the prime working ages;
- under what conditions children and old people participate in productive labor;
- what governs the extent of female labor force participation;
- what part household strategies play in the supply of different sorts of labor;
- how employers squeeze additional labor out of a given amount of labor power.

(On these issues, see Durand 1975, Edwards 1978, Marglin 1974, Tilly and Scott 1978.) However, the largest component by far of increase in the workforce -- and the only one on which we can hope to assemble information for Europe as a whole -- is growth in the base population from which the workforce comes. Let us think about that growth.

Many students of European history have treated population change as an essentially autonomous variable, the product of such "accidents" as plagues and crop failures. The rate of population growth figures as an exogenous variable -- a very important one -- in the North-Thomas account of European economic history. In his famous analysis of labor supply in the industrial revolution, J.D. Chambers proposed a general distinction between the period of slow growth before the mid-eighteenth century, and the great acceleration thereafter. Although Chambers allowed for the possibility that after 1750 industrial employment encouraged earlier marriage, which in turn accelerated fertility, on the whole his analysis treats the rate of population growth as a powerful external determinant of

labor supply. As Christer Winberg points out, a similar argument has dominated historians' thinking about changes in the Swedish labor force. Over Europe as a whole, most historians have been willing to consider population growth a crucial but exogenous variable in economic change.

Yet we have grounds for being skeptical: for doubting that the rate of population increase was independent of the pace of proletarianization. The most important ground for skepticism is the association, in region after region of Europe, of rapid accelerations in population growth with visible increases in landless labor; we will review a number of cases later on. Such an association could, of course, result from the application, over and over again, of the rule that population pressure produces proletarians. In fact, most such regions probably did begin their proletarianization with a stock of underemployed, cheap labor; that made them attractive to entrepreneurs. But once the process had begun, rates of marriage, childbearing and migration all seem to have responded actively to employment opportunities. By that point, the growth of the workforce was at least partly dependent on the tempo of its proletarianization.

I suggest, then, that four major variables governed the rate of increase in the total population:

1. changes in the demand for goods and services;
2. changes in the opportunity cost of childbearing;
3. the previous proletarianization of the population, whose effect operated with a lag corresponding to the average age at which children began productive labor;
4. an exogenous component combining the effects of "natural" fluctuations of fertility and mortality due to alterations in disease, nutrition, disaster, and other factors external to the system.

I suggest, further, that as proletarianization proceeded, the first three variables -- the demand for goods and services, the opportunity costs of childbearing, and previous proletarianization -- became increasingly dominant.

Natural fluctuations declined in importance. The portmanteau exogenous component, to be sure, introduces a touch of magic into the analysis; many irregularities will disappear into the portmanteau. The point of this formulation, however, is not to provide a comprehensive explanation of population growth, but merely to indicate that with proletarianization, population growth responded increasingly to the economic situation of the proletarianized population.

Set down as lists, and marked to indicate whether the general relationship is supposed to be positive (+) or negative (-), the variables I have proposed to explain the rate of proletarianization look like this:

<u>determinants of increase in positions controlling means of production</u>	<u>determinants of increase in the total population</u>
change in demand for goods and services (+)	change in demand for goods and services (+)
cost of establishing new producing units (-)	opportunity cost of childbearing (-)
concentration of capital (-)	previous proletarianization (+)
coercive power of employers (-)	natural fluctuations (+)

Without further specification of the effects of changing demand for goods and services, we have no reason to think that the growth or decline of demand will, in itself, affect the population's proletarianization; effects on the two sides of the basic ratio are likely to cancel each other out. The lists say that, everything else being equal, the following conditions will promote proletarianization:

1. increases in the costs of establishing new producing units;
2. concentration of capital;
3. increases in the coercive power of employers;
4. declines in the opportunity costs of childbearing;
5. previous proletarianization.

As a model of the actual process, this is very crude. As a guide to searching through the historical experience of proletarianization, on the other hand, it is quite helpful. We look for times and places in which capitalists are consolidating their power over production, and in which the alternatives open to the local population are diminishing. That is, I think, a credible general description of the most common circumstances of proletarianization in Europe.

Where and When?

Concretely, where and when did these general conditions for proletarianization converge in modern Europe? Did they, in fact, reliably produce increases in expropriation and wage work? Despite innumerable fragments of the necessary evidence, we do not know. As a way of sorting out the evidence, we might try distinguishing some very different social settings:

estate systems (example: East Prussia), in which large landlords produced grain for the market by means of servile labor, whose subsistence came mainly from small plots assigned to their households.

large-farm systems (example: southern England), in which large landlords or their tenants likewise produced grain for the market, but with wage labor.

specialized farming (example: coastal Flanders), in which peasants specialized in cash-crop production, and non-producing landlords were unimportant.

peasant farming (example: western France), in which landlords lived from rents and peasants lived from various combinations of owned, rented and sharecropped land.

cottage industry (example: Lancashire), in which petty entrepreneurs parceled out industrial production among households which also devoted some of their labor to small-scale subsistence farming and/or seasonal wage labor in agriculture.

urban craft production (example: north Italian cities), in which masters of small shops controlled the labor of journeymen and apprentices lodged in the masters' households.

large-shop and factory production (example: the Rhineland after 1850), in which capitalists assembled and coordinated the labor of many wage workers in the same place.

The categories are neither tight nor exhaustive. On the one hand, the types overlap. On the other, they leave out such important configurations as the smallholding cash-crop production which commonly appeared in Europe's winegrowing areas. Still, the typology suggests the sort of variation any systematic analysis of proletarianization must take into account, and identifies the chief settings in which European proletarianization actually did take place.

Given the general conditions for proletarianization enumerated earlier -- increases in the cost of establishing new producing units, concentration of capital, increases in the coercive power of employers, declines in the opportunity costs of childbearing, and previous proletarianization -- some of these settings stand out as prime candidates. The very creation of estate systems, large-farm systems, cottage industry and large-shop/factory production entailed the creation or recruitment of local proletariats. Specialized farming, peasant farming and urban craft production, in contrast, did not

necessarily proletarianize. Which of the first four were the dominant settings for proletarianization changed over time. The two agricultural settings were probably the dominant sites of European proletarianization before the eighteenth century, while cottage industry became increasingly important after 1700, and large-shop/factory production did not play the major role before the end of the nineteenth century.

But proletarianization did occur in all seven settings under some conditions. In estate systems the consolidation of landlord control ordinarily occurred at the expense of peasants who had been more or less independent producers; in those same areas, the nineteenth-century emancipations of servile laborers produced a temporary movement away from the proletariat, but the unfavorable conditions for access to the land pushed more and more of the freedmen into wage labor (Blum 1978).

Large-farm systems grew variously from estate systems, from specialized farming and from peasant farming. They expanded by adding more wage laborers. In most cases, however, small independent producers disappeared as the large farms grew (see, e.g. Habakkuk, 1965).

Specialized farming did not necessarily promote proletarianization. In the case of grain production, for instance, independent family units actually took up a larger share of the world market during the nineteenth and twentieth centuries (Friedmann 1978). Elsewhere, however, some specialists commonly expanded their holdings, accumulated capital, and hired their own wage laborers (e.g. the northern Netherlands: de Vries 1974). In those cases, specialization also proletarianized the population.

Peasant farming, as such, tended to block proletarianization as long as it lasted. But peasant farming sometimes turned into specialized farming, as peasants took up more and more cash-crop production, sometimes gave way to large-farm or estate agriculture as landlords seized their advantage,

sometimes succumbed to increasing subdivision of inheritances which eventually became too small to support households, and sometimes -- where the available labor was underemployed and markets for industrial products were more accessible than markets for cash crops -- hosted proletarianizing cottage industry.

Cottage industry itself always grew up on an agricultural base. It began as a complement to some sort of farming, and as an alternative to less attractive and remunerative forms of labor, such as military and domestic service. But when cottage industry flourished, it tended to squeeze out other activities, and to become an aggressive proletarianizer (e.g. Braun 1978).

Urban craft production, like peasant farming, tended to resist proletarianization so long as it retained its pure form. But masters sometimes used the structure of the craft to expand the numbers of journeymen and, especially, apprentices under their control. Where the masters succeeded, they were helping to create a proletarian large-shop and factory system (see, e.g. Kisch 1968).

Large shop and factory production, finally, has the reputation of being the great proletarianizer. In our time, it is no doubt the setting in which the workforce has come closest to being entirely expropriated and completely dependent on wages. Yet several features of large-shop/factory production qualify its claims to being the primary site of European proletarianization. First is its tardiness: prior to the twentieth century, large shops and factories were relatively rare; before then, most industrial expansion occurred through the proliferation of small shops, and even of household production. Second, in skilled trades the earlier grouping of workers in large shops often involved little change in the technology of production and in the relationship of the worker to the means of production, although it did eventually facilitate the owner's imposition of timing and work-discipline. Third, in many industries the large-shop and factory

workforce came largely from workers who were already involved in household or small-shop production within the same industry (see, e.g. Lequin 1977). All three of these features mitigate the historical impact of large shops and factories as the settings of European proletarianization. Nonetheless, when large shops and factories did grow fast, they had unparalleled power to proletarianize. Only mining (which came to share many organizational features with factory production) rivaled them.

This said, let us flee from technological determinism. The seven social settings did not differ in importance as precipitators of proletarianization because expropriated wage labor was technically essential to some of them and technically incompatible with others. The settings differed because of their varying association with the proletarianizing conditions we enumerated earlier: increasing costs of new productive units, concentration of capital, growing employer coercive power, declines in the opportunity costs of childbearing, and previous proletarianization. The expansion of cottage industry, for example, favored proletarianization not because of any intrinsic affinity between expropriated wage labor and weaving or woodworking, but because:

1. the concentration of capital in the hands of entrepreneurs and the domination of access to markets by those same entrepreneurs radically narrowed the workers' room for maneuver, and
2. the opportunity costs of childbearing sank so dramatically -- since young children could make significant contributions to household income, and older children became less expensive to "place" in adult positions -- as to favor the production of more and more new proletarians.

Ultimately, then, the search for general explanations of European proletarianization

should concentrate less on such matters as the demand for textiles or wheat than on the conditions favoring the reorganization of the relations of production. Perhaps we can gain insight into those conditions by breaking with the abstract, deductive approach to the problem I have followed so far. Let us ask when, where, and in what quantities European proletarianization actually occurred.

How Many Proletarians?

Considering how much discussion has gone into the subject, we have amazingly little knowledge of the timing and loci of European proletarianization. For Britain, John Saville has ventured this general sketch:

- (1) the development of commercial farming during mediaeval times and the existence, by the beginning of the sixteenth century, of a class of capitalist farmers;
- (2) the slow disappearance of the peasantry as a substantial element in rural society over the three centuries from 1500 to 1800, to the point where, in Habakkuk's words, as a significant part of the agrarian structure "the peasants had disappeared before the intensive phase of the enclosure movement of the eighteenth century";
- (3) the presence in the countryside, from the sixteenth century onwards, and in substantial numbers by the time of Gregory King's estimates, of a class of landless labourers; their swelling numbers in the eighteenth century, in part the result of the further decline of the peasant class, in part the product of natural population growth;
- (4) the growth of the large farm -- notably in the eighteenth century -- and the increasing proportion of the total area farmed by the large capitalist tenant farmers, renting their land from a market-orientated landlord class;

(5) the growing concentration of land in the ownership of the landlord class from the middle of the seventeenth century onwards, a process much aided by the ways in which the laws relating to real estate developed. Although there are no precise data for the distribution of landholdings in the eighteenth century, we must assume that by some date (the eve of the Napoleonic Wars? the years following the post-war agricultural depression?) the proportion of land owned by the large landlords to the total land area was roughly that indicated by the so-called New Domesday Book of the mid-1870s;

(6) accompanying the social changes in the agrarian structure went the technical transformation of farming methods. The timing of these two revolutionary changes do not coincide although it is now accepted that the seventeenth century is much more important in respect of technical change and improvements in productivity than was formerly assumed (Saville 1969: 251-252).

Saville's lucid distillation of a murky literature suggests that the timing of the major agrarian changes -- hence of the growth of an agricultural proletariat -- is well known. It is not. Think, for example, about one of the easiest numbers to establish: the proportion of landless laborers in Britain's agricultural population. Table 1 presents some commonly-cited sources for estimates of the share of landless labor in the agricultural population as a whole at various times from about 1600 to 1851. A glance at the table identifies two major difficulties: first, the numbers oscillate implausibly from one period to the next; second, the categories and base populations fluctuate almost as wildly. A comparison of Gregory King's high figure for 1688 with the Census of 1831 permitted J.H. Clapham to make his famous "demonstration" that the scale of agricultural production had only risen modestly over the period of the enclosures, and to

Table 1. Estimates of the Proportion of the English, English & Welsh, British, or British and Irish Agricultural Population Consisting of Laborers

<u>date</u>	<u>per- cent</u>	<u>reference agri- cultural population</u>	<u>author of estimate</u>	<u>citation</u>
c. 1600	25-33	entire rural popula- tion, England & Wales	Alan Everitt	Everitt 1967: 398
1688	66	English families ₁	Gregory King	Mathias 1957: 45
1760	59	families, England & Wales ₂	Joseph Massie	Mathias 1957: 45
1803	62	families, England & Wales ₃	Patrick Colquhoun	Colquhoun 1806: 23
1812	49	males in agriculture, Great Britain & Ireland	Patrick Colquhoun	Colquhoun 1815: 124-125
1831	76	males 20 and over in agriculture, Great Britain	1831 Census	Abstract: xiii
1841	76	all persons classified	1841 Census	Spackman 1847: 143
1851	80	all persons classified ₄	1851 Census	Census 1851: 148
1851	79	total in agriculture ₅	1851 Census	Bellerby 1958: 3
1911	64	total in agriculture ₅	1911 Census	Bellerby 1958: 3
1931	59	total in agriculture ₅	1931 Census	Bellerby 1958: 3
1951	54	total in agriculture ₅	1951 Census	Bellerby 1958: 3

Notes for Table 1

1. Includes nobility, gentry, freeholders, farmers, labouring people, outservants, cottagers and paupers. I have taken "labouring people, outservants, cottagers and paupers" as laborers. From the total for those categories I have subtracted my best estimate of the proportion of the total population of England and Wales in places of 20,000 or more -- 11.0 percent in 1688 -- to allow for the urban location of that share of general laborers.

2. Reference population includes nobility, gentry, freeholders, farmers, husbandmen and laborers. In this case, I have counted all "husbandmen and labourers" as agricultural laborers.

3. Reference population includes nobility, gentry, freeholders, farmers, labourers in husbandry, pauper labourers, pensioners who work. Here, "labourers in husbandry, pauper labourers, and pensioners who work" count as agricultural laborers. I have, however, subtracted my best estimate of the proportion of the total population of England and Wales in places of 20,000 or more -- 17.4 percent in 1803 -- from the total for pauper laborers and pensioners, to allow for the urban location of that share of general laborers.

4. Excluding persons listed as wives, children and relatives of farmers and graziers.

5. Excluding "relatives occupied on the farm".

conclude that enclosures could not have played a major part in the creation of the agricultural proletariat. One reason why Massie's figures record an apparent drop in the proletarian share of the agricultural population between 1688 and 1760 is simply that in 1688 King saw no need to distinguish rural industrial workers from the rest of the laborers, while in 1760 Massie enumerated 100,000 families who were "Manufacturers of Wool, Silk, etc." in the country, plus another 100,000 "Manufacturers of Wood, Iron, etc.", likewise in the country. Their inclusion in agricultural labor would bring Massie's proportion up to 66 percent: exactly the same as King's. But that correction would be risky; after all, the differences between Massie's estimates and King's could have registered a genuine increase in rural industry.

Again, Massie mentions no "vagrants" in 1760; he was estimating the likely returns from taxes on chocolate, and vagrants matter little for that purpose. Gregory King, on the other hand, lists 30,000 vagrants for 1688, and Patrick Colquhoun counts a full 234,000 of them in 1803. Many "vagrants" were indubitably unemployed agricultural laborers on the road. Should they, too, be included in the agricultural proletariat? Judgments on such matters depend on knowledge of the very trends and processes one might have hoped to derive from the comparison of Everitt, King, Massie and Colquhoun.

We can, I fear, draw no more than a few tentative, meager conclusions from the series:

1. During most of the seventeenth and eighteenth centuries a large share -- most likely a majority -- of Britain's agricultural labor force consisted of landless laborers.
2. Since the population of England and Wales may well have risen from 4 to 5 million people during the seventeenth century, and from 5 to 9 million during the eighteenth, even a relatively constant proportion of proletarians implies a substantial increase in their absolute numbers.

3. During the early nineteenth century, both the absolute number and the proportion of agricultural laborers grew considerably.

4. After the middle of the nineteenth century, laborers left British agriculture so rapidly that the total agricultural labor force contracted, and the share of farmers rose significantly.

As Deane and Cole put this last point:

Apart from a fall of about 8 1/2 per cent in the 1870's, and a rise of about 13 per cent between 1911 and 1921, the number of British farmers has shown remarkably little tendency to vary.

Farmers (excluding relatives) thus accounted for about 15 per cent of the occupied population in agriculture in 1851, about 20 per cent in 1911 and about 27 per cent in 1951 (Deane and Cole 1967: 143-144).

Thus the century after 1851 witnessed a deproletarianization of British agriculture, at a time when the industrial labor force was proletarianizing rapidly. But when and how the earlier proletarianization of agriculture occurred does not leap out at us from the available national figures.

To locate any figures on proletarianization at a regional or national scale, we must cross over to the Continent. In his survey of changes in agrarian class structure at a number of locations across the continent, Slicher van Bath (1977) offers multiple examples of disproportionate growth of smallholders, cottars and laborers. (Slicher himself, I hasten to add, interprets the changes as illustrating "the influence that a rise in population had on the distribution of the various groups in rural society": Slicher van Bath 1977: 127.) In the Dutch province of Overijssel, he reports a pattern of increase among heads of households which runs as follows:

<u>category</u>	<u>base period</u>	<u>annual rate of growth</u>
total population	1675-1795	0.7
non-agricultural population	1675-1795	0.9
agricultural population	1602-1795	0.3
farmers on family-sized farms	1602-1795	0.1
cottars on smallholdings	1602-1795	0.2
cottars and day-laborers	1602-1795	0.4

(computed from Slicher van Bath 1977: 130)

Two things were happening in Overijssel: First, a great expansion of cottage textile production was swelling the number of weavers and spinners in the countryside. Second, the agricultural population itself was proletarianizing. The net effect of the two was a substantial proletarianization of Overijssel's population in the seventeenth and, especially, the eighteenth century.

We have already noticed the changes in Sweden's rural population -- a full nine tenths of the total population -- between 1750 and 1850. There, the rural proletariat grew more than thirty times as fast as the peasantry. (One consequence of that expansion was an overall decline in real wages for Swedish agricultural workers over the century after 1750: Jörberg 1972a.)

From about 30 percent of the rural population in 1750, the proletariat grew to about 60 percent in 1850. If we were to extrapolate this sort of change to the European scale, it would imply an increase from about 35 million rural proletarians in 1750 to about 90 million in 1850; the increase rate for the whole continent would be lower than that for Sweden because in Europe as a whole the rural population only increased by about a third, while in Sweden it doubled. Still, an increase of 55 million rural proletarians would represent the great majority of the continent's total population increase (which was on the order of 85 million people) between 1750 and 1850.

Now, Sweden is most likely an extreme case because of its large rural population, its relative lack of rural manufacturing, and its fairly late industrialization. However, a similar computation based on one of Europe's old industrial areas, the Kingdom of Saxony, produces an estimate in the same general range: about 51 million of the total 85 million increase in population consisting of expansion of the continent's rural proletariat (computed from Blaschke 1967: 190-191, Bairoch 1977: 42).

Let us look more closely at Saxony, since it is the only large area of Europe for which we have reliable estimates of the proletarian population running back to the sixteenth century. For the years 1550, 1750 and 1843, Karlheinz Blaschke provides us with counts of the following categories of the Saxon population:

URBAN	RURAL
<u>Bürger</u> (full citizens)	<u>Bauern</u> (peasants)
<u>Inwohner in Städten</u> (dependent urban workers)	<u>Gärtner und Häusler</u> (gardeners, cottars)
<u>Geistlichkeit</u> (professionals, intellectuals, etc.)	<u>Inwohner in Dörfern</u> (village labor)
	<u>Grundherren</u> (noble landlords)

The classification into "urban" and "rural" is my own, but aside from the rural residence of a few parsons and professionals (Geistlichkeit) and the urban residence of a few noble landlords (Grundherren) it looks like a fairly accurate division. On the urban side, the Inwohner, or in-dwellers, were essentially proletarians: servants, journeymen, apprentices, and others. On the rural side, the Gärtner and Häusler (gardeners and cottars) join the Inwohner in the proletarian category. (Gärtner had their own garden-plots, Häusler nothing but their dwellings. Gärtner is sometimes translated as "smallholder" -- but in either translation designates a worker who had to sell a substantial part of his labor power to survive.) Table 2 gives Blaschke's

Table 2. Distribution of the Workforce of Saxony in 1550, 1750 and 1843, According to Karlheinz Blaschke

CATEGORY	YEAR		
	1550	1750	1843
<u>Urban</u>			
full citizens	82.0	54.0	47.5
dependent workers	15.5	44.8	51.7
professionals etc.	<u>2.5</u>	<u>1.2</u>	<u>0.7</u>
total	100.0	100.0	99.9
number	141500	370500	631000
<u>Rural</u>			
peasants	73.5	38.6	20.4
gardeners, cottars	6.8	47.9	70.9
village labor	18.8	12.7	8.2
noble landlords	<u>0.8</u>	<u>0.8</u>	<u>0.5</u>
total	99.9	100.0	100.0
number	292400	647500	1225000

Source: Blaschke 1967: 190-191. The 1550 figures omit the region of Oberlausitz.

counts of the numbers of workers in each of these categories from 1550 to 1843.

Blaschke's figures tell an important story. Throughout the three centuries after 1550, according to this classification, the Saxon countryside was more proletarian than the cities; even in 1550, gardeners, cottars and village labor made up 25.6 percent of the rural workforce, while dependent workers comprised 15.5 percent of the urban total. Within both the urban and the rural sectors, the proletarian share rose dramatically. Both from 1550 to 1750 and from 1750 to 1843, gardeners and cottars -- the all-purpose wage-workers of the countryside -- grew fastest. Translated into annual rates of increase, the comparison runs like this:

CATEGORY	1550-1750	1750-1843
full citizens	0.2	0.4
dependent urban workers	1.0	0.7
professionals, etc.	0.1	0.0
peasants	0.1	0.0
gardeners, cottars	1.4	1.1
village labor	0.2	0.2
noble landlords	0.4	0.1
total	0.4	0.6

The numbers of professionals and of peasants hardly increased over three centuries, a fact which probably reflects the implicit fixing of quotas for each of them. Full-fledged burghers, regular village labor and landlords did not increase much faster. The dynamic categories were the proletarian ones. In terms of rates alone, those categories grew faster before 1750 than after. The fact that they were an increasing share of the total, however, meant that their impact on total growth was larger later; as a result, the overall rate of growth in the workforce was higher after 1750: 0.6 percent

per year from 1750 to 1843, as opposed to 0.4 percent from 1550 to 1750.

We are not staring at the ripples of a backwater. The Kingdom of Saxony contained such major industrial centers as Leipzig and Dresden. With 46 percent of its labor force in manufacturing by 1849, and 53 percent in manufacturing by 1861, the Kingdom of Saxony moved at the leading edge of German industrialization (Köllmann 1974: 88-90). The Kingdom's "potential labor force" (the population 15 and over, less housewives, dependent daughters, students, invalids, and certain other categories) grew by an average of 1.5 percent per year between 1822 and 1849, by 1.2 percent per year between 1849 and 1864; those rates were higher than elsewhere in Germany (Köllmann 1974: 74). The Kingdom was the only major region of Germany gaining from migration more or less continuously from 1817 to 1865 (Köllmann 1974: 70). In fact, Wolfgang Köllmann offers the Kingdom of Saxony as a principal example of the overrunning of employment opportunities by population growth -- in his view, the crucial process which depressed wages in the old crafts, drove workers out of those old crafts, and provided a labor force for expanding large-scale industry. We do not have to accept Köllmann's whole analysis of proletarianization to recognize Saxony as a good base for the analysis of European proletarianization as a whole.

Table 3 shows the results of imagining that the entire European population (except for Russia) behaved like Saxony. The procedure is simple. . . . Paul Bairoch's estimates of rural and urban population, interpolate values for 1550, 1750 and 1843, then apply the percentages of proletarians Blaschke finds in Saxony's rural and urban sectors to the whole European population. While this approach multiplies suppositions by approximations, it suggests orders of magnitude for the growth of the European proletariat.

Table 3. Estimates of the European Proletarian Population in 1550, 1750 and 1843, Based on Blaschke's Figures for Saxony (in Thousands)

CATEGORY	TOTAL POPULATION	PROLETARIAN POPULATION	NON-PROLETARIANS	PERCENT PROLETARIAN
<u>1550</u>				
Rural	61175	15661	45514	25.6
Urban	10325	1600	8725	15.5
Total	71000	17261	54239	24.3
<u>1750</u>				
Rural	113100	68539	44561	60.6
Urban	18150	8131	10019	44.8
Total	131250	76670	54580	58.4
<u>1843</u>				
Rural	146453	115844	30609	79.1
Urban	63194	32671	30523	51.7
Total	209647	148515	61132	70.8

Sources: Blaschke 1967: 190-191; Bairoch 1977: 42. I have changed Bairoch's estimate of total population for 1500 (85 million), which is implausibly high, to a more conventional 56 million. The adjustment diminishes the estimate of the proletarian population in 1550 from 24.5 to 24.3 percent.

If Europe behaved like Saxony, both rural and urban proletarianization were massive. The totals show the proletarian population more than octupling while the non-proletarian population increased by a mere 13 percent, and while the population as a whole rose from 71 million to 210 million people. The estimated absolute increase in the proletarian population from 1550 to 1843 was 131 million: nearly equivalent to the total increase in Europe's population. Of that 131 million increase, furthermore, the estimates show 100 million as occurring within the rural sector, only 31 million in the cities. That was especially true for the period before 1750, when only a small share of Europe's proletarianization could have occurred in the cities. After 1750 (and, in fact, especially after 1800) the balance shifted toward urban proletarianization. In short, a massive proletarianization of the population, occurring first and foremost in the countryside.

No one region can sum up the experience of the whole continent. Yet, in the absence of other series as ample in space and time, we have no reason to shrug off the experience of the region of Leipzig, Chemnitz and Dresden as an inappropriate model for Europe. The orders of magnitude are likely to be correct. If so, we can reasonably adopt three working hypotheses:

1. that the increase in Europe's proletarian population was on the order of its total population increase; the non-proletarian population hardly increased at all;
2. that over the sixteenth to mid-nineteenth centuries, most of Europe's proletarianization took place in village and country;
3. that with the nineteenth century cities became increasingly important as the sites of proletarianization.

These hypotheses call for careful verification.

Given a broad definition of the proletariat, the second and third hypotheses become more plausible as we examine the temporal pattern of Europe's

urbanization. Figure 2 graphs Paul Bairoch's recent estimates of changes in the European population by size of place since 1500. It reminds us that the great majority of the population lived in rural areas until quite recently. More important, it shows that Europe did not urbanise significantly between 1500 and 1800. Indeed (if you accept my reduction of Europe's total population in 1500 from 85 million to a more plausible 56 million); the estimates suggest that Europe as a whole de-urbanized slightly over those three centuries. Here are the percentages:

1500	16.1
1700	13.0
1800	14.4
1900	41.3
1970	62.4

Only after 1800, according to these figures, did the frenzied urbanization with which we are familiar begin.

My own compilations of urban populations from a variety of sources -- notably Chandler and Fox's mammoth enumeration of Europe's cities -- single out the seventeenth century as the time when urban growth slowed, and the eighteenth century as a period of mild acceleration. Now, the surprising seventeenth-century de-urbanization may well fade away in the light of fuller evidence. Nevertheless, it is not so implausible on the second look as it is on the first. If the figures are correct, Europe de-urbanized because urban growth slowed while total growth continued. To put it another way, the rural and small-town population grew faster than the population in cities.

 1. In a private communication, Paul Bairoch has told me that revised figures, compiled after the publication of his book, do suggest a seventeenth-century decline in the urban share of the European population -- especially outside of England.

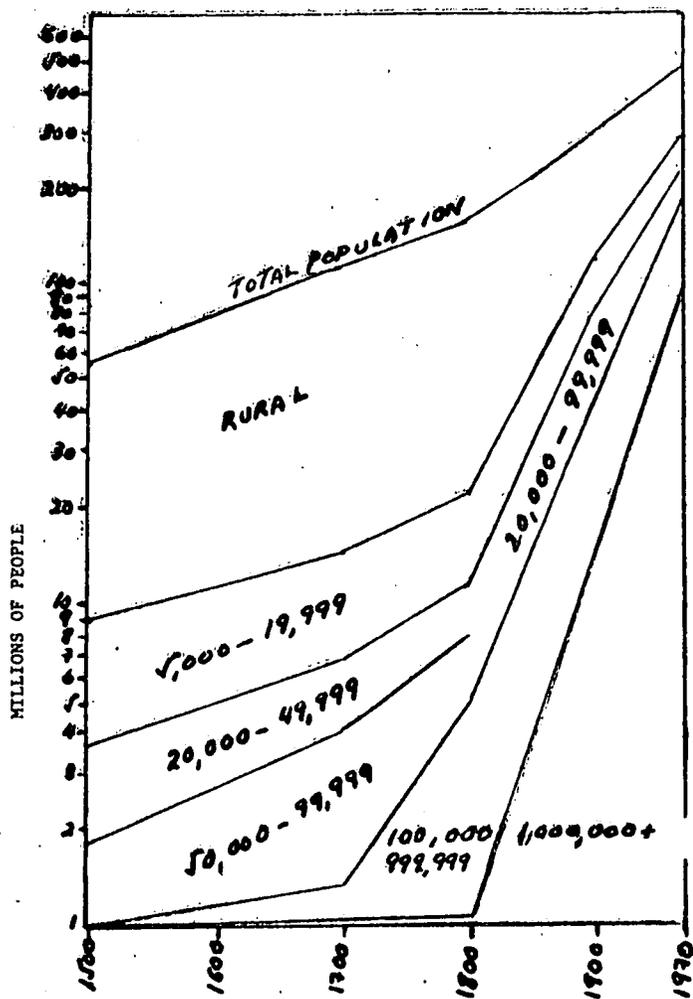


Figure 2. Paul Bairoch's Estimates of the European Population by Size of Place, 1500-1970

Note: "Europe" excludes Russia and Turkey. Source: Bairoch 1977: 42.

It is possible that the normal natural decrease of cities grew larger as sanitation, nutrition and health care declined, that the normal natural increase of rural areas increased as fertility rose or mortality declined, and that the normal rural-to-urban flow of migrants diminished. All three may well have happened.

These hypothetical changes are thinkable for several reasons. First, Europe's larger cities were unhealthy places, and may well have gotten unhealthier as they grew. Second, the food supply of large cities was growing increasingly problematic in the seventeenth and eighteenth centuries despite modest increases in agricultural productivity. Urban growth may well have overrun the general capacity of European agriculture to support non-producers, surpassed the abilities of merchants and officials to extract whatever surplus did exist, strained the limits to shipping of food set by reliance on navigable waterways, and exceeded the possibility that particular cities and their immediate hinterlands could produce enough to sustain their own non-agricultural populations. In such circumstances we would expect the cost of food to rise prohibitively -- and disproportionately -- in urban areas. The rise of the food riot and the elaboration of municipal and national controls over food supply suggest a sharpening struggle over the disposition of food during the period of apparent deurbanization. Third, as we shall see, there are reasons for thinking that natural increase rose in important parts of rural and small-town Europe during the seventeenth and eighteenth centuries. Whether such increases resulted from declining mortality, rising fertility, or both, remains debatable. We shall return to that problem, too.

The final possible source of de-urbanization connects the most directly with our inquiry into the origins of the proletariat. Two kinds of employment were growing rapidly in the Europe of 1600 to 1800; they were surely growing more rapidly in small towns and rural areas than in big cities. They were the

same forms of employment that were growing in Saxony from 1550 to 1750. One was wage-labor in agriculture. The other was cottage industry. The expansion of agricultural wage-labor proletarianized, almost by definition; it was the principal case Marx had in mind. The growth of cottage industry did not necessarily proletarianize; that depended on who held control of the means of production. But in fact the major European forms of cottage industry created a workforce which depended for survival on the sale of its labor power. Thus it is plausible (although far from established) that a temporary de-urbanization did occur between 1500 and 1800, and that the growth of a rural proletariat contributed significantly to that de-urbanization.

After 1800 Europe felt the quickening urbanization with which we are familiar; the population was, by our estimates, 14.4 percent urban in 1800, 41.3 percent in 1900, 62.4 percent in 1970. In absolute terms, the rural population never actually declined. But by the middle of the nineteenth century, with about 150 million people, it had come close to its limit. From that point on, almost the whole of European population increase occurred in urban areas.

The site of proletarianization shifted as the locus of population growth changed. Blaschke's figures simply show that shift to have occurred a bit earlier in relatively industrial Saxony than in Europe as a whole. My grafting of Blaschke's figures onto Bairoch's estimates of urban and rural population adjusts for the difference in timing. But both sets of figures indicate that the nineteenth century swung the active loci of European proletarianization toward the cities.

If we start our inquiry at 1500, we are dealing with a total of about 56 million people. If we end it in 1900, we arrive at a total around 285 million people. That is an increase of some 230 million people in the four

centuries. At the beginning (to extrapolate from the estimates we have squeezed from the combination of Blaschke with Bairoch), perhaps 17 million of the 56 million total were proletarians of one kind or another. By 1900, on the order of 200 million out of the 285 million total were proletarians. That gives us an increase of around 180 million proletarians to account for. It also gives us a smaller increase -- perhaps 45 million -- of non-proletarians to explain. If those are the numbers, we must ask when, where, and how the increase occurred.

The timing of population growth sets important limits on the possible timetable of proletarianization. Since the population of Europe (not including Russia and Turkey) rose from about 150 million to 285 million during the nineteenth century, a large part of the net increase in the proletariat must also have occurred in the nineteenth century. Nevertheless, given the significant eighteenth-century expansion of wage labor in such widely scattered areas as England, Poland, and Spain, it is quite possible that by 1800 something like 100 million Europeans were already proletarians and their households. Notice again the implications of Bairoch's estimates for 1800: only 20 million Europeans or so then lived in urban areas. At least three quarters of the proletariat must have lived in small towns, villages and open countryside. In tracing the proletarianization of Europe before 1800, we have to give priority to farms and villages. From the nineteenth century onward, cities start occupying our attention.

Let me sum up these speculations and approximations. We are thinking about components of growth within a population which broke down something like this:

(millions of persons)

	1500	1800	1900
total population	56	150	285
non-proletarians	39	50	85
proletarians in cities	1	10	75
proletarians in rural areas	16	90	125

To avoid any misunderstanding, let me repeat: these numbers are no more than thoughtful guesses, orders of magnitude, hypotheses to verify. Their revision stands high on the agenda of historical demography. If they hold up to further investigation, the numbers have important implications. They suggest a seventy-five fold increase in the proletarian population of European cities from 1500 to 1900, an octupling of the rural proletariat during the same period. They concentrate the great bulk of European proletarianization in rural areas before 1800, and in cities after then. With these orders of magnitude in mind, let us return to the components of growth: social mobility, natural increase, and net migration.

Social Mobility

Speaking of the sixteenth- and seventeenth-century Netherlands, Jan de Vries distinguishes between two models of rural social organization: a peasant model and a specialization model. Peasants produce enough to survive at a conventional level of well-being and to meet their basic outside obligations. They work to insulate themselves from the market's volatility while avoiding purchases of goods and services as much as possible. They seek, in general, to maintain all their offspring on the land. With natural increase, that strategy produces subdivision of holdings and intensified cultivation of the available land. The result is then that per capita income almost never rises; it remains constant or declines.

Specialists, on the other hand, exploit the market by concentrating on profitable crops. They specialize in agricultural production, and purchase goods and services they cannot produce profitably. They accumulate capital, and reinvest it in land and equipment. Such children as they cannot profitably employ on the land they place in other forms of enterprise. Over the long run, their per capita income tends to rise. The specialists are capitalists, the peasants non-capitalists. In fact, the peasants are often anti-capitalists.

The two models identify two quite different exits from the peasantry. The peasant path leads eventually to wage-labor in agriculture or in industry. The specialization path leads to cash-crop farming. The peasant strategy proletarianizes, while the specialization strategy -- if successful -- capitalizes. The peasant strategy leads to wage labor for two reasons: first, because its internal logic results sooner or later in the overrunning of the household's capacity to support itself from the land it controls; second, because in the meantime capitalists are expanding their control over the land and over other means of production. English enclosures and Polish "refeudalization" are variants of that second pattern.

Whether the new proletarians remained in agricultural wage labor, moved into manufacturing, or took up some combination of the two varied significantly as a function of the local labor requirements of agriculture and the market for local manufactures. In the Swiss mountain areas studied by Rudolf Braun, cottage textile manufacturing oriented toward Zurich displaced the subsistence agriculture of the uplands. In the Leicestershire agricultural villages studied by David Leviné, cottage industry provided the context for proletarianization where the landlord tolerated it, but dairy farming produced a later, slower, and more subtle form of proletarianization

where the landlord would not tolerate manufacturing. In the Flanders studied by Franklin Mendels, the proletarianizing populations of the coast moved into agricultural wage labor, while those of the interior moved into a mixture of agriculture and textile industry, and shifted their weight from one to the other as a function of the available wage.

This last example serves as a reminder that the specialists' strategy also fostered a certain amount of proletarianization. Although those who succeeded in specializing became petty capitalists, those who failed moved into the proletariat. Moreover, the more successful cash-crop farmers became employers of wage laborers from among their skidding neighbors and from nearby regions of mixed agriculture and industry. Franklin Mendels has pointed out, in fact, that small-scale industrial production tended to expand especially in regions having nearby sources of part-time and seasonal agricultural employment, which reduced the industrial employer's minimum maintenance costs for labor. The interdependence of Flanders' coastal cash-crop areas and internal cottage-industry areas illustrates the point very well (Mendels 1978).

Parallel paths to those of peasants and specialists led away from the world of artisans. Artisans slipped into the proletariat as cheaper production processes reduced the demand for their wares, and as entrepreneurs assumed control over the means of production. But a few artisans climbed into the bourgeoisie by becoming successful entrepreneurs. Herbert Kisch gives us the contrast between Silesia and the Rhineland (Kisch 1959, 1965, 1968). In both places the growth of rural textile production undercut the urban craft guilds. But in Silesia the process was one of almost pure proletarianization, as a small number of chartered merchants worked with large landlords who were happy to have weaver-serfs contributing to the incomes of their estates. In the Rhineland proletarianization was likewise the main trend, but a few

master craftsmen in Cologne, Barmen, Aachen and elsewhere accumulated capital and made themselves pivotal figures in textile production. Although Kisch does not give us the details of labor force recruitment, lifetime movement from artisan to proletarian must have been a common experience in both regions. In neither case, however, is it likely that social mobility was the main component of the proletariat's growth. Natural increase and migration must have been important in both Silesia and the Rhineland.

Natural Increase

Natural increase or decrease is the net effect of births and deaths. The proletariat grows through natural increase when, in any given period, more proletarians are born than die. Perhaps we should distinguish between the proletarian children of non-proletarian parents and the proletarian children of proletarians. In the first case we stand midway between social mobility and natural increase: if at a given succession a peasant holding fragments into pieces too small to support the heirs, we may debate how much of that family's move is due to natural increase. The same is true of the "extra" child of a peasant family who spends life as a servant or day-laborer. Yet at least some of the resulting expansion of the proletariat is attributable to natural increase.

The least ambiguous, and most important, case is somehow the most ignored. It is the natural increase of full-fledged proletarians. If, on the average, the natural increase of wage laborers were greater than that of peasants and artisans, that fact alone would be sufficient to produce a relative growth of the proletariat without any skidding of peasants or artisans and without any in-migration of proletarians. I suspect that differential natural increase was the principal component in the relative growth of the European proletariat from 1500 to 1900. More precisely, I suspect that the principal component was natural increase resulting from the difference between

fairly high mortality and very high fertility.

To be even more exact (and at the risk of being ponderous), I propose the following hypothesis: on the average, proletarians responded to economic expansion with greater declines in mortality and greater increases in fertility than the non-proletarian population, and responded to economic contraction with greater increases in mortality but no greater declines in fertility than the non-proletarian; the consequence was a disproportionate natural increase of proletarians in good times which was not completely compensated by the natural decrease of bad times. Since the period we are considering was on the whole an era of economic expansion, such a system would have produced a significant tendency for the proletariat to increase more rapidly than the rest of the population. My hypothesis is that it did.

In its main lines, the hypothesis generalizes to the entire proletarian population the model of demographic change which Franklin Mendels developed to deal with the "protoindustrialization" of Flanders and elsewhere (for an extensive review of the evidence on protoindustrial demography, see Kriedte, Medick and Schlumbohm 1977, especially pp. 155-193; for an empirical challenge, see Hohorst 1977, especially pp. 208-227). The hypothesis does not mean that proletarians always had higher fertility than non-proletarians. We have already seen that the opposite was true among the Swedish villagers studied by Christer Winberg, and can find similar evidence elsewhere. The hypothesis does mean that the demographic responses of proletarians and non-proletarians to economic expansion and contraction differed significantly. To put it schematically, non-proletarians responded to changing opportunities for the placement of their household capital, while proletarians responded to changing opportunities for wage labor.

In one muted form or another, the hypothesis is quite old. In his pioneering study of the Vale of Trent, J.D. Chambers noted the higher

natural increase of parishes with rural industry during the years from 1670 to 1800. Although they lack crucial evidence concerning the components of growth, Blaschke's analysis of Saxony, Klíma's discussion of Bohemia and Braun's portrayal of the Zurich Uplands all bring out a similar contrast between slow-growing regions of peasant agriculture and fast-growing regions of rural industry. In his fairly direct attack on the problem, David Levine identifies a relationship between rising natural increase and rural industrial growth in eighteenth-century Shepshed, between rising natural increase and agricultural proletarianization in nineteenth-century Bottesford. Levine also provides a plausible interpretation of the demographic ups and downs of the famous village of Colyton, Devon, as a consequence of the rise and fall of rural industry (Levine 1977: 103-115). Following the same line of inquiry, Wrightson and Levine trace the population growth of Terling, Essex, to the proletarianizing effects of a large-farm system (Wrightson and Levine 1979, esp. pp. 43-72). Elsewhere, and with very fine evidence, David Gaunt has argued for a similar tuning of natural increase to opportunity among Swedish rural proletarians (Gaunt 1977).

If such a relationship holds, it reverses some of our conventional wisdom. We commonly think of rural proletarianization as a consequence of rapid population growth -- too many people for the available land. But the possibility we see here is that proletarianization may induce rapid population growth. Of course, both may be true. Then a process of proletarianization initiated by some such action as enclosure will tend to perpetuate itself up -- or, rather, down -- to the limit set by starvation. At the limit and in this special case, Malthusian models begin to work fairly well.

How and why would the natural increase of proletarians tend to exceed that of non-proletarians? The critical relationships link fertility, marriage,

and the availability of employment. In a world in which most households control their own means of production, the chief opportunities for young adults are to inherit positions within their own households, or to enter other households. In the world of European artisans and peasants, the capital of a household set stringent limits on the number of persons it could sustain; household capital thereby limited the number of children who could remain home into adulthood, and especially into marriage and parenthood. The only way to enter another household as a full-fledged adult was to marry in. Persons who entered as servants, apprentices, day-laborers and the like ordinarily acquired no control over the household means of production, and no right to marry or to procreate. Opportunities to marry, to have children, and to place one's children in full-fledged adult positions thus depended on the rate at which senior positions in households were opening up. Mortality was the chief determinant of that rate. But sometimes out-migration or the putting of new land into cultivation also provided new adult opportunities. To an important degree, the system was self-regulating: nuptiality and fertility adapted to changing opportunity, and the total population remained fairly constant over the medium run (see Lee 1978, Smith 1977, Wrigley 1978).

Under these circumstances, couples adjusted both their marriages and their childbearing to the probable availability of adult positions and to the probability that their newborn children would survive to adulthood. As a result, marriage and fertility surged after famine or pestilence wiped out many adults, and slowed when mortality declined. Or so it seems. In the present state of our knowledge, any hypothesis which implies widespread, deliberate fertility control before the nineteenth century and outside of westernized industrial countries is controversial (see Caldwell 1976, Knodel 1978, Knodel and van de Walle 1979).

The idea of deliberate fertility control of any great extent before the nineteenth century counters a set of ideas which demographers cherish:

- * that in general human populations have lived under a regime of "natural" fertility, without imposing deliberate, self-conscious controls over conception;
- * that variations in the fertility of populations outside the wealthy nations of our own era have resulted from differences over which people did not exert deliberate control, at least not for the purpose of controlling conception: marriage customs, sexual taboos, breast-feeding practices, nutrition, illness, and so on;
- * that once the members of a population do begin to control births, they keep at it, with the consequence that a fertility decline begun in earnest leads unerringly to stable low fertility;
- * that such a decline requires a fundamental shift in attitudes away from ignorance, passivity and short-run gratification.

Students of European population changes who subscribe to these views point to several different sorts of evidence. First, following Louis Henry, they commonly insist that deliberate fertility control will show up in the record as differential age-specific fertility: at a given age, women who have been married longer and/or who have had more children will bear children at a lower rate than other women in the same population; solid evidence of those age-specific differentials is, in fact, quite rare for periods before the nineteenth century. Second, they draw attention to the fact that where strong evidence of deliberate fertility control does appear, it tends to increase irreversibly with time. Third, the broad similarity in the timing of the fertility decline in different parts of Europe, despite drastic differences in levels of income, urbanization and industrialization couples with an

apparent tendency of culturally homogeneous regions to behave as units within the fertility decline; some sort of diffusion and cultural change suggests itself.

Yet there is evidence on the other side. First, there are well-documented "preindustrial" cases which meet the stringent tests of parity-dependence (e.g. Andorka 1979, Gaunt 1977, Levine 1977, Wrigley 1966). Second, there are many more cases in which the evidence is less direct and compelling, but in which differentials in nuptiality and fertility by class and time period correspond closely to variations in economic interest (see Tilly 1978a for a review of many such cases). Third, Ronald Lee's exacting time-series analyses of the best national data available for the long run of English history display a significant tendency for nuptiality and fertility to rise and fall as a function of real wages (Lee 1976, 1978).

The main relationships are hard to disentangle empirically from the contrary effects. It is likely, for example, that improvements in nutrition boosted fertility and depressed mortality simultaneously (McKeown 1976, Lee 1978). It is quite possible, as William Langer has suggested, that the expanding cultivation of American plants such as the potato significantly improved life expectancy, and thus contributed to natural increase without any necessary rise in fertility. Yet the general hypothesis that adjusted marriage and fertility to the availability of adult places in crafts and on the land is not absurd. In one form or another, it has been around since Malthus. And it is compatible with many forms of fertility control short of the self-conscious efficacy of twentieth-century contraception.

Proletarians faced a different set of circumstances from peasants and artisans. To the extent that the world around them was proletarian, they had both the incentive and the opportunity to marry and form their own households early. They could acquire the means of survival as adults at quite a young

age. The characteristic organization of work and the characteristic lifetime curve of earnings -- rising rapidly with adolescence, falling steadily from young adulthood -- provided further encouragements to marriage and fertility. Especially in the many variants of domestic industry, the standard labor unit was not a single individual but a household: for example, a weaver plus several spinners and tenders (see Tilly and Scott 1978, chapter 2). To work in these arrangements, it was almost essential to form a household. Speaking of the region of Charleroi (now in southern Belgium) during the eighteenth century, Hervé Hasquin declares:

Thus, in these working-class settings, all members of the family worked, since all wages were welcome. The women and girls made spun goods; at a very young age, the boys were pushed hard; they were not spared the most demanding work (Hasquin 1971: 292-293). Hasquin shows that birth rates rose in the towns in which industry was expanding -- by now, a classic finding. He concludes that "having children resulted increasingly from deliberate intention" (Hasquin 1971: 292).

In his more general analysis of the Belgian fertility decline, Ron Lestaege adopts a similar argument:

with the accelerated growth of employment outside the family-related artisanal workshops or agricultural enterprises during the Industrial Revolution, an even larger section of the population became both economically independent and capable of establishing a household at an earlier age. The precariousness of the wage-earners' sustenance ceased to be related to their age, and they had no more grounds for postponing their marriages (Lestaege 1977: 69, citing Hofstee as the source of the argument).

So long as employment opportunities, however marginal, were expanding, a proletarian strategy of early marriage and high fertility made sense. At least it made sense in the short run.

Net Migration

Migration figured in the formation of the European proletariat in two rather different ways. From the perspective of Europe as a whole from 1500 to 1900, the chief contribution of migration was negative: the continent shipped out many more migrants than it took in, and the bulk of the out-migrants were proletarian (for a general review, see Tilly 1978b). Before 1750 the net outflows were small: colonists to the Americas, Slavs into continental Asia, trickles of settlers into other parts of the world. With the accelerating population growth of the later eighteenth century, out-migration speeded up as well. A plausible estimate for the period from 1800 to World War I is a net loss of 50 million Europeans to extracontinental migration. Before 1900, those out-migrants came disproportionately from the British Isles. From 1846 to 1890, for example, an estimated 48 percent of all European out-migrants came from England, Scotland, Wales or Ireland (Kosinski 1970: 57). The loss of migrants was equivalent to a fifth or a sixth of the continent's entire nineteenth-century population growth.

Most of those millions were proletarians. A prototype of the transatlantic migration was the outflow from seventeenth-century Tourouvre-au-Perche (Charbonneau 1974). The roughly 300 migrants from Tourouvre and vicinity and their numerous descendants played a major part in the settlement of Quebec. Labor recruiters intervened into a local but very active system of migration, in which wage-laborers already predominated. The recruiters drew a high proportion of young men in their twenties, most of them apparently servants and day-laborers. In Canada, to be sure, their grants of land transferred them out of the proletariat. In the

European reckoning, nevertheless, they were simply a loss of a few hundred proletarians.

Or take one of the best-documented flows after 1800: from Denmark to America (Ihvidt 1975). Denmark's nineteenth-century population ran in the vicinity of two million people. That small country sent almost 300 thousand migrants to North America between 1840 and 1914. The bulk of the migrants were servants, wage-laborers and other proletarians. The ideal candidates for emigration seem to have been young people who had already made the move from farms and villages to a nearby, slow-moving regional center. Many -- probably the great majority -- moved within chains of friends, neighbors and kinsmen who kept information about American opportunities flowing back to Denmark, and who helped the migrants find the passage money, jobs and housing. The chains also made it easier for those who disliked America to return home. But their main effect was to facilitate the flow of emigrants from Denmark. Their demographic effect was a net loss of some 200 thousand Danish proletarians.

Migration also influenced the growth of the proletariat indirectly through its effect on social mobility and natural increase. One of the most valuable by-products of recent European historical demography has been the accumulating evidence of high mobility levels before the period of large-scale industrialization. Contrary to the idea of an immobile preindustrial world, historians of many different parts of Europe turn up village after village with annual migration rates of 10 percent or more (e.g. Bukatzsch 1951, Cornwall 1967, Eriksson and Rogers 1978, Hammer 1976, Hollingsworth 1971, Martinus 1967, Patten 1973, Poussou 1974, Sabean 1971). Americans of the last century have considered themselves exceptionally mobile because in the average year about 20 percent of the population changed residence -- and a great many of them have moved within the same community.

Comparable levels of mobility are showing up in many parts of Europe before massive industrialization.

That high preindustrial mobility, however, requires several qualifications. First, that earlier Europe was not pre-industrial in a strict sense of the term. Dispersed, small-scale manufacturing played an important part in rural and small-town life, occupying a significant share of the population at least part-time. People working in small-scale industry were a relatively mobile segment of the population. They also comprised an important fraction of the European proletariat. Second, most of the moves were quite local. They consisted largely of exchanges of labor among nearby villages, and of a small city's recruitment of youngsters from its immediate hinterland. Third, the most active migrants were proletarians. Proletarianization itself produced migration, as when a household displaced by enclosures left the land or when an extra child of a peasant family trudged off to work as a mercenary soldier or domestic servant. In addition, the proletarian worker had the least to tie him to any particular locality, and the greatest incentive to follow the trail of better wages into a new labor market. The local authorities of seventeenth-century England considered the ever-present wanderers as potential workers in good times, but as "vagrants" in bad times (Slack 1974). In good times or bad, they were quintessentially proletarians.

Long-distance migration probably became an increasingly common context of proletarianization during the nineteenth century. The average distances moved increased, the definitiveness of departure from home probably increased as well, and the growth in the scale of production diminished the likelihood that an expanding firm could draw its new workers from its region's existing proletarians. Furthermore, as Abel Châtelain has pointed out, the innumerable circuits of seasonal migration which permitted people to lead a non-proletarian

existence at least part of the year finally began to disintegrate during the nineteenth century. Two opposite movements -- short-distance commuting and definitive long-distance migration -- began replacing them. Nevertheless, even during the nineteenth century the new industrial labor force came largely from small towns and rural areas in which small-scale industrial production was declining (see, e.g., Braun 1965, Kellenbenz 1975, Lequin 1977, I. Tilly 1973). If so, small towns and rural areas continued to serve as important way-stations on the road to the proletariat.

The pattern of proletarian geographic mobility affected the way social mobility and natural increase performed as components of the proletariat's growth. The existence of well-established flows of migrants probably facilitated the proletarianization of the population in two ways. First, it helped produce a whole series of intermediate positions between the full artisan or peasant and the full proletarian -- the Alpine peasant who walked off to be a peddler in the winter, the weaver who followed the harvest in the fall, and so on (see Châtelain 1976 for multiple examples). What appeared to be temporary expedients imperceptibly became a proletarian life. Second, the existence of well-established migratory flows withdrew the proletarianizing populations from the communities in which they had rights and solidarity, and placed them in communities in which they had neither.

If the choice had been sharper and more dramatic in either regard, one might suppose that the proletarians would have resisted their fate with greater determination and effectiveness. When the choice was sharp and the proletarianizing populations were still embedded in their communities, they did often fight back against expropriation. They fought by attacking others who were seizing control of the means of production. They also fought by adopting family strategies which limited the strain on household resources: strategies of late marriage, low fertility, regrouped inheritance, and so on. That fight

against proletarianization pervades eighteenth-century peasant struggles against enclosures and alienation of common rights, nineteenth-century artisanal struggles against work-discipline, twentieth-century winegrowers' struggles against big producers. It was a losing battle, but passionately fought.

Weighing the Components

Anyone who has watched how the evidence has leaked into and out of this discussion will realize that I am in no position to build estimates of the components of proletarianization that will hold water. For the sake of refocusing the inquiry, however, we may as well speculate about the relative weights of social mobility, natural increase, and net migration. Remember first our approximations of the size of the European proletariat.

In millions, the numbers run:

	<u>1500</u>	<u>1800</u>	<u>1900</u>
total population	56	150	285
non-proletarian population	39	50	85
proletarian population	17	100	200

Remember also that the likely effect of net migration on the proletarian population of the continent was a small loss before 1800, and a large loss -- on the order of 50 million -- during the nineteenth century. If we set the loss from 1500 to 1800 at a modest 10 million (a mere 33 thousand per year) and retain the estimate of 50 million for 1800-1900, we arrive at guesses of the amounts of change attributable to the sum of social mobility and natural increase:

	<u>1500-1800</u>	<u>1800-1900</u>
total population	+104 (0.3)	+185 (0.8)
non-proletarian population	+11 (0.1)	+35 (0.5)
proletarian population	+93 (0.6)	+150 (0.9)

(The figures in parentheses represent the implied annual rates of growth.)

For the three centuries from 1500 to 1800, the figures indicate a mild increase for the non-proletarian population, a significant increase for the proletarians. For the nineteenth century, they indicate substantial increases in both categories, with the proletariat growing much faster than the rest of the population.

Imagine a non-proletarian population with zero natural increase: a population which simply reproduced itself over the four centuries under examination. That would be consistent with the models of peasant and artisanal demographic behavior reviewed earlier. With zero natural increase in the non-proletarian population, the figures would imply a) that the net increase of 11 million non-proletarians between 1500 and 1800 was entirely due to social mobility out of the proletariat; b) that the European proletariat added 104 million via natural increase, and lost 11 million of them to social mobility. Those implications are, to say the least, unconventional. For the nineteenth century, the same assumption of zero natural increase among non-proletarians would suggest an even more surprising pair of conclusions: c) that from 1800 to 1900 the net effect of social mobility was not to create massive numbers of new proletarians, but to move 35 million people out of the proletariat into non-proletarian positions; d) that the natural increase of the proletarian population was on the order of 185 million people: about 1.1 percent per year over the century as a whole.

Note that we are imagining net effects; for example, a net gain of 11 million non-proletarians via social mobility could easily mean that 25 million proletarians moved into non-proletarian positions while 14 million non-proletarians moved into the proletariat. Likewise, the nineteenth-century transfer from proletariat to non-proletariat could result from, say, 60 million moves out of the proletariat balanced by 25 million moves into

the proletariat. From a technical point of view, there is nothing implausible about the levels of natural increase the figures suggest: for example, an average crude birth rate of 35 coupled to an average crude death rate of 24 would produce the sort of natural increase indicated for proletarians in the nineteenth century.

For the sake of a contrasting argument, let us imagine equal rates of natural increase among proletarians and non-proletarians. If we stick with our earlier estimates of net migration (a loss of 10 million from 1500 to 1800, a loss of 50 million from 1800 to 1900), the rates of natural increase are equal to the annual rates of growth of the total European population: ^{0.4}0.3 percent per year from 1500 to 1800, 0.8 percent per year from 1800 to 1900. Again, these figures are perfectly acceptable from a strictly technical point of view. Under the assumption of equal natural increase, our general figures imply an accounting of the following order: a) that between 1500 and 1800 non-proletarians had a natural increase of ³²32 million people, counterbalanced by social mobility into the proletariat of ⁴46 million; b) that in the same period proletarians experienced a natural increase of ³²27 million people, and received ⁴46 million newcomers via social mobility; c) that during the nineteenth century the non-proletarian population added ⁶²62 million people through natural increase, and lost ²⁷26 million to social mobility; d) during the same century the proletariat augmented its ²⁷26-million-person gain from social mobility with a natural increase of ¹²³124 million people.

We have, then, two extreme models: one with zero natural increase for non-proletarians, the other with non-proletarians experiencing the same natural increase as proletarians. The Zero Increase model suggests some departure of proletarians from the proletariat before 1800, a massive movement out of the proletariat during the nineteenth century. The Same Increase

model suggests a huge transfer of non-proletarians into the proletariat before 1800, and a more modest transfer in the same direction from 1800 to 1900.

The reality and all useful models of it lie between the two extremes. We could, for example, reasonably argue that natural increase declined earlier among non-proletarians than among proletarians, and that we should therefore shift from the Same Increase model toward the Zero Increase model as time moves on; that suggests, however, a zigzag: huge moves into the proletariat before 1800, large moves out of the proletariat between 1800 and 1900. Unconventional? Yes. Absurd? Perhaps. Yet that very absurdity has its value. For it clears the way to the real challenge: to fashion these crude estimates and fragile models into genuine portrayals of the proletariat's growth. The speculative reasoning we have just gone through actually imposes serious constraints on those portrayals. For instance:

1. By any reasonable argument, natural increase must have played the major role in the growth of the European proletariat since 1500, and especially since 1800.
2. Well-grounded estimates of fertility, mortality and their trends among specific European populations will set serious limits on the part that social mobility could have played in the proletarianization of those populations; to the extent that the patterns and trends are similar from one population to another, they will set limits on the possible role of social mobility in the growth of the whole European proletariat.

3. Earlier, I sketched the argument that non-proletarians tend to adjust their fertility to the availability of land and capital, while proletarians adjust their fertility to the availability of wages. That argument can be verified, modified, and refined through the examination of local populations. To the extent that it applies in a similar fashion throughout Europe, it limits the assumptions we can plausibly make concerning the trends in natural increase among proletarian and non-proletarian populations from 1500 to 1900.

Thus reasoning about the broad trends for Europe as a whole clarifies what sorts of conclusions we need to draw from the local studies of demographic processes which are now proliferating.

Let me stress that outcome. The numbers with which we have been working are temporary constructions, useful mainly as shelter while we catch our bearings. In the long run, they will not withstand the historical wind. Two sorts of new building are essential. First, the broad estimates must be verified, revised, and refined. Even if the numbers I have proposed were precise and reliable, they would leave us far from the historical reality we are trying to understand. Most pressing is the need to specify the actual flows into and out of the proletariat which leave the net effects we have been discussing. How many people, for example, spent their lives straddling the line between proletarian and non-proletarian existence by alternating between wage labor and independent production? How many proletarian emigrants actually realized the recurrent migrant dream: to accumulate capital at their destinations, then return home as peasants, artisans, rentiers, or capitalists?

Second, the sharp distinctions among migration, natural increase and social mobility will eventually have to give way. We must examine their combinations and interactions. How often were the people who made the lifetime move from non-proletarian to proletarian households "extra" children of

peasants and artisans, and thus in some sense creatures of natural increase? How frequently did social mobility occur as a correlate or consequence of long-distance migration? Was exclusion of squatters and tenants from common rights, and thus from the village, the potent proletarianizer it seems to have been? For such questions, more reliable estimates of the components of growth at a continental scale will be of little help. We need precise, textured local analyses.

Conclusions

In hacking out the contours of this massive problem, then, I have neglected all the graceful refinements which make the problem interesting. For example, the detailed timetable of proletarianization matters a good deal. Cottage industry and agricultural wage-labor seem to have expanded much more rapidly in the seventeenth and, especially, the eighteenth century than before. Yet there was a good deal of population increase in Europe during the sixteenth century. Is it possible that during the sixteenth century peasants, artisans, and other non-proletarians increased more rapidly than the general population, and that it was therefore a century of deproletarianization? The geography of proletarianization likewise cries out for attention. At a minimum we need contrasts among the legal enserfment of essentially landless laborers on the large estates of eastern Europe, the creation of a legally free proletarian labor force in England, and the emergence of landowning peasants and cash-crop farmers in important parts of western Europe. Finally, a historically useful portrayal cannot stop with the tabulation of social mobility, natural increase and net migration as separate components. It must specify their interplay. All this requires a more refined analysis than I have provided here.

Qualifications, hesitations and apologies duly registered, what provisional conclusions may we draw? Where did the European proletariat come from? One

answer recurs through the arguments and evidence of this paper: cherchez le capitaliste. The activity of capitalists, not the abstract mechanics of population growth, lay behind all the components of the proletariat's growth. On the side of social mobility, we have encountered the old processes of capitalist expropriation, although less frequently than the simplest Marxist accounts lead us to expect. More often, the piece-by-piece consolidation of land and capital by small producers gradually but inexorably edged their neighbors into the proletariat. In migration, the capitalist's hand is gloved, but no less powerful: to the extent that capitalists accomplished expropriation and the imposition of labor by transferring capital from one worksite to another, and thus attracted proletarianizing flows of migrants, they did the work more subtly and effectively. The most surprising implication of this paper's analysis, however, is the importance of capitalists in natural increase. Perhaps there was some "exogenous" decline in mortality due to climatic shifts, extinction of the animal carriers of the plague, and so on. But the alterations in nutrition which are the strongest candidates for explanations of involuntary long-term changes in fertility and mortality before the nineteenth century surely depended to an important degree on the activities of merchants and agricultural capitalists. And -- most important -- the pattern of proletarian natural increase in response to the availability of wage labor we have encountered depended entirely on the capitalists' provision of employment. The specialist farmers who offered work to day-laborers and the petty entrepreneurs who built cottage industry thereby incited the disproportionate natural increase of the proletariat. Not that they plotted to do so, or ceased to condemn the heedless breeding of their workers. The power of a system like capitalism is that it does not require malevolent, or even self-conscious, agents to do its work.

Back at the start of this long discussion I said there were three steps to the appropriate sociological procedure: the delineation of the components of growth, the separate explanation of each of the components, and the integration of those explanations into a comprehensive account of the whole process. We have not, by any means, completed that entire program. Yet the fragmentary observations we have made point to the utility of a modified Marxist account of European proletarianization. The most important modification consists of the large significance attributed to natural increase within the existing proletariat. Marx implicitly made lifetime entries of non-proletarians -- that is, social mobility -- the major component of the proletariat's increase. The modification fits nicely with that brand of Marxist analysis, typified by E.P. Thompson, which emphasizes the continuity of working-class culture from one generation to the next.

Now, that is a gratifying conclusion for a reason we have not discussed at all. It tells us we need not make some drastic choice between "quantitative" and "qualitative" analyses, between numbers and people, between demographic characteristics and cultural characteristics, between sociology and history. In the particular context we have been exploring, the available sociology has the advantage of helping specify what is to be explained, and of helping sort out the available explanations. But it leads right back to honest history, history rooted in real times and places.

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