# SOCIAL AND DEMOGRAPHIC ORIGINS OF THE EUROPEAN PROLETARIAT

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## The Problem

Saxony is the only large European territory where we can make reliable estimates of the absolute increase of the different social classes and strata (Blaschke 1967). Here, from the midst of the 16th until the midst of the 19th century the overall population tripled. However, the absolute number of peasants (*Vollbauern*) remained nearly the same, the number of full citizens in towns doubled, and in villages the cottars (*Häusler*) and laborers (*Handarbeiter*) were in 1850 ten times as numerous as in 1550 and their relative proportion rose from about one tenth to more than one half of the total population. For anybody who is confronted with these figures and who remembers the number of siblings of his great-grandfather, it seems to be obvious that there was a disproportionate increase of the rural proletariat as a consequence of its higher natural increase.

Accordingly, Charles Tilly (1984; p. 39) proposed the following hypothesis: "On the average, proletarians responded to economic expansion with greater decline in mortality and greater increases in fertility than nonproletarians did, and responded to economic contraction with greater increases in mortality but no greater declines in fertility than nonproletarians did. The consequence was disproportionate natural increase of proletarians in good times, not completely compensated by the natural decrease of bad times." Tilly, whose point of view, we must admit, was nothing more than "informed" speculation and not supported by reliable empirical data, goes even further.

> With a zero natural increase in the non-proletarian population, the figures would imply that the net increase of 11 million nonproletarians between 1500 and 1800 was entirely due to social mobility out of the proletariat... Whereas Marx implicitly treated the lifetime mobility of workers and their households from nonproletarian to proletarian positions as the principal component of the proletariat's growth my account gives far greater weight to… natural increase… By any reasonable argument, natural increase must have played the major role in the growth of the European proletariat since 1500... The modification fits nicely with that brand of Marxist analysis..., which emphasizes the continuity of working-class culture from one generation to the next.

## Empirical Evidence Against Tilly's neo-Marxist Hypothesis

In view of the importance of this question (Weiss *et al*. 1986) it seems remarkable that until now the relationship between Tilly's prejudice and the already known empirical data has not been discussed. Tilly himself (1984; p. 48), citing a study by Winberg (1978), cannot avoid the following conclusion: "The opposite was true among the Swedish villages studied by Winberg." Winberg had observed that:

> Between 1750 and 1850 the population of Sweden doubled... The increase was very unequally distributed among the different social groups of the rural

> population. The number of landholding peasants rose by about 10%, while the number of the landless more than quadrupled. The dominant interpretation is played by the 'autonomous death-rate', i.e. a death-rate that remains relatively autonomous in relation to the economic development…. Before 1805 reproduction among the landless was so low (231 children reaching 5 years of age per 100 married women) that the group was hardly able to reproduce itself.… About half of the landless heads of families came from peasant families. Of those sons of peasants for whom information is available one out of three was absorbed by the proletariat.

Also based on family reconstitution, Skipp (1978) has published a very thorough study of five parishes now forming the periphery of the city of Birmingham in England (see Table 1.

According to Skipp, a crisis passes through three distinct phases. "In the opening years poorer women are still bearing children, but a high proportion of their offspring are failing to survive infancy because of inadequate feeding. Then, at the heart of the crisis, the food-base becomes so inadequate that many of the poorer women are unable to conceive at all. Finally, with its gradual abatement, they again begin to do so; but the percentage of miscarriages is high." In an exemplary study of a French village, Charbonneau (1970) could show that in all investigated 8 fertility parameters (intervals between births, absolute number of children, and percentage of infertile women) the poorer inhabitants (*manoeuvres*; *sabotiers*) were exceeded by the richer ones (*laboureurs*; *marchands*; *artisans*) from 1665 to 1765. During this time the share of the poor population rose from 31% to 49%, but not as a result of their own superior natural increase. Since the French "laboureur" means "peasant," and not "laborer," some English authors seem to have misinterpreted Charbonneau's tables. Craftsmen (*artisans*) in this village were not prospering (their share decreased, in contrast to the overall development, from 30% in 1665 to 20% in 1765), and reflecting this difficult economic situation the mortality of their children up to the age of 12 was higher than among the poor day laborers (whose mortality of children was higher than among peasants). This latter example demonstrates how a general trend can be clouded by specific circumstances.

Tilly (1984) is also unaware of a large body of evidence accumulated in Central Europe during the last decades, which contradicts his hypothesis. Recently, Weiss (1990) could review 12 such studies. For example, the family reconstitution study by Heckh (1952) comprised 6 parishes (including 9 villages) in Württemberg/Southwest Germany. During 1650-1799 peasants in first marriages (n = 666) had 6.4 children, of which 3.2 reached an age of 15 years; during 1800-1899 (n = 551) 6.8 children, of which 4.0 reached age 15. During 1650-1799 the "leading group" in these villages (n = 117) had 6.6 children, of which 4.6 reached age 15; during 1800-1899 (n = 78) 7.3 children, of which 4.6 reached age 15. In contrast, during 1650-1799 proletarians (*Taglöhner*) (n = 356) had 5.0 children, of which 2.7 reached age 15; during 1800-1899 (n = 363) 5.8 children, of which 3.3 reached age 15.

Before 1815 the genealogical roots of the population growth cannot be traced to the rural proletariat, and nobody with any sense for reality will search for them among the urban proletariat. As Pound (1972) found:

**Table 1**

**Demographic means in landed and landless families in three English villages: Sheldon, Solihull and Yardley 1560-1674 (n = figure in brackets).**

| | Length of marriage union years | Birth intervals months | Childbearing span years | Closed family size children |
|---|---|---|---|---|
| above: Landed couples marrying | | | | |
| below: Landless couples marrying | | | | |
| 1560-99 | 26.0 (30) | 31.5 (56) | 12.9 (22) | 4.1 (31) |
| | 26.3 (17) | 32.4 (29) | 8.9 (15) | 3.0 (26) |
| 1600-24 | 27.0 (32) | 29.9 (58) | 12.3 (15) | 4.4 (33) |
| | 17.0 (25) | 34.9 (30) | 8.8 (12) | 2.1 (26) |
| 1625-49 | 26.6 (46) | 29.4 (88) | 12.5 (32) | 4.0 (41) |
| | 20.8 (16) | 29.9 (31) | 12.0 (14) | 3.4 (19) |
| 1650-74 | 21.1 (53) | - | - | 3.8 (56) |
| | 19.6 (8) | - | - | 3.4 (12) |

Source: Skipp, Victor: Crisis and Development. An Ecological Case Study of the Forest of Arden 1570-1674. Cambridge: Cambridge University Press 1970, p. 28.

> Between 1500 and 1630 in English cities there was… a differential fertility pattern by which the upper classes produced more children than the poor. Thus an Elizabethan census of some 450 poor families with children in Norwich shows an average of 2.2 children per household, against between 4.25 and 4.7 children per household of well-to-do merchants of Norwich and Exeter.

The same study by Pound found a remarkably higher rate of remarriages in the upper strata, and outspoken differences in infant mortality. In 18th century Berlin, the proletarians (*Taglöhner*, *Gesellen*) were not able to reproduce themselves (Schultz 1987). 2.3 births per marriage are contrasted with a child mortality of about 60%. Despite this and because of heavy influx from smaller towns and from the countryside, the absolute number of proletarians was always growing. In contrast, in Berlin the reproductive balance of craftsmen and merchants was positive. In 1829 in Göttingen (Sachse 1987; for more detail and further references see Weiss 1990) per 100 households of the very poor were 93 children (of the lower stratum as a whole; i.e. 40% of the total population, 112 children), of the middle stratum (comprising 55% of the population) 164 children, of the upper stratum 289 children.

These already published data show that Tilly's (1984) neo-Marxist views concerning the continuity of the European proletariat are misconceptions.

The 19th century, especially, was characterized in Middle and Western Europe by an unprecedented population increase. Armies of millions of people, among them an increasing percentage of unskilled laborers, were crowding in the suburbs and even more in suburban villages (which at the end of the century were incorporated into the cities). At the turn of the century, Jack London, as a contemporary keen observer of social reality, wrote in his essay "The People of the Abyss" (1902) that in the slums of London "Year by year, and decade after decade, rural England pours in a flood of vigorous strong life, that not only does not renew itself, but perishes by the third generation. Competent authorities state that the London workman whose parents and grandparents were born in London is so remarkable a specimen that it is rarely found."

Contemporary statistics on internal migration and differential child mortality confirm London's impression. Yet, in 1881 London had already reached an advanced stage of the mobility transition (Zelinsky 1971), with a relatively high 63% of its inhabitants being born within London (Bucher 1987). By comparison with London, in the same year the demographically retarded Berlin still had 51% new arrivals from the countryside; and in the year 1890, in Dresden and in Chemnitz only 41% of the residents were born in the respective cities (Mayr 1903). From where did these millions come? Eager today to trace not only the geographic, but also the social roots of these millions, we get no satisfying answer from contemporary statistics. In the following presentations we will present data which will supply a broader perspective to this important question.

**Saxony As a Research Paradigm**

Before 1900, the official statistics of Saxony, as elsewhere, provide no data about the social background of social strata or occupational groups. Social mobility and its relationship with differential fertility are problems of research only since the turn of the last century. Data on the inheritance of occupational status from father to son can be amassed from marriage registers (e.g. Schultz 1987), and–in the upper strata–from biographical collections (e.g. Stone and Stone 1984). The shortcoming of these sources is their restriction in range, either social or local. Marriage registers in Saxony for example, as kept since 1548, give only the occupation of the bridegroom and his father and father-in-law at the day of the ceremony. The combination of this register with other parish registers and with data from tax rolls and records of the tenure and transfer of lands (*Gerichtshandelsbücher*) could contribute to a better database. However, because the population is mobile both in the social and spatial dimension, the gathering of representative samples seemed to be practically impossible. In several aspects our research profited from an early development of economics and culture in Saxony. As a consequence, Saxony seems to be the only European territory with a detailed population history (Blaschke 1967) where also the respective quantities of social strata are given.

Since about 1900, Saxony has become a center of genealogical research. The genealogists, mostly hobby researchers with professional backgrounds, have developed their own standards of quality which conform well to the quality needed for data by demographers (Knodel and Shorter 1976), historians (Weiss 1989b) and sociologists. Since 1921, the Central Archive of Genealogy (1904-1945 "*Zentralstelle für Deutsche Personen- und Familiengeschichte"; and re-established* in 1967 as "*Zentralstelle für*

*Genealogie*") in Leipzig is collecting the results of German genealogical research. Up to now, the number of ancestry and pedigree files in this archive exceeds 11,000 and contains data on about 4,000,000 persons. The most comprehensive files comprise data on several thousand ancestors of a single contemporary person, not only amassed from parish registers but also from other sources. Because the quality of primary registers in Saxony was in some places high from the beginning, the quality of genealogical research is correspondingly high. In the 18th century parish books, data on status and occupation of a male person are always given, even in the remotest village. In the 16th and 17th centuries our analysis is restricted mostly to parishes where the genealogists have extended the database by means of family reconstitution (about 100 communities in Saxony!) with the use of tax rolls and records of land tenure.

From 500 ancestry and pedigree files we drew five random samples of couples (in most cases married ones), each sample comprising about 2200 couples for the following years of marriage: 1548-1649, 1650-1699, 1700-1749, 1750-1814, and 1815-1870. The drawn quota are representative with respect to main social strata and town/countryside distribution given by Blaschke (1967). In the 19th century, upward mobility in the families traced by the pedigree authors may lead to bias in the data. In the 1815-1870 random sample we included therefore nearly 1000 couples from village genealogies (*Ortsfamilienbüchern*) and descendants of probands of humble origin. For each of the 11,000 couples we listed occupation, status and possession, place of birth and residence and the respective years of birth, marriage (including the order of marriage), and death; and analogous data for both father and father-in-law (Weiss 1989a; for more detail see the forthcoming monograph on this project). This data were coded for social criteria and type of settlement. With our method we saved at least 90% of time and costs. Certainly, future research will be more sophisticated, but also far more expensive. Because of increasing unreliability of primary sources, results for the time before 1650 can only be tentative. The representativity holds only for established families. Young men (servants, soldiers, apprentices) without family cannot be taken into account. Therefore, the years given in the tables refer always to a male population with a mean age of about 40 years (based on an estimated marriage age of about 25 years plus 15 years).

Social history can always be only an approximation. Where there is no totality of sources, there can be no completely unbiased results. For the social mobility and origin of 1,000 peasants it is of no importance whether there are 10 or even 30 persons more or less in the sample; the fathers and fathers-in-law of the peasants remain the same. An error, however, could result from the inclusion of an over-represented number of rich peasants or of peasants from villages bordering towns. Such bias we have tried to avoid.

One of the main problems was the fuzziness of denominations and their change in time and place. Here, in an English publication, it would make no sense to go into details (German readers should refer to Weiss 1989a and 1991). The practical consequence of this is a certain amount of misclassification and hence a small percentage of mobility, not real, but as the consequence of misclassification of either son or father (or father-in-law.) In the 16th and 17th centuries, in many cases whether or not the land belonged to a peasant cannot be inferred from the parish books and the genealogies.

From the statistical analysis of tax rolls (Schwarze 1975) we must conclude that the percentage of smallholders was, during these centuries, already higher, and our data are representing only the lower boundary. As a consequence of growing reliability of

**Table 2**

**Social structure of the rural population: Saxony without Upper Lusatia 1565-1870 (rounded values).**

| | Rural population | Peasants | Smallholders | Cottars as unskilled labor | Craftsmen | Total sum in any trade |
|---|---|---|---|---|---|---|
| | thousands | % | % | % | % | % |
| 1565 | 257 | 84 | 8 | 1 | 2 | 5 |
| 1585 | 278 | 79 | 9 | 3 | 4 | 9 |
| 1630 | 297 | 74 | 8 | 4 | 6 | 12 |
| 1660 | 310 | 65 | 11 | 6 | 9 | 21 |
| 1690 | 363 | 60 | 13 | 9 | 10 | 24 |
| 1720 | 409 | 54 | 14 | 12 | 12 | 29 |
| 1750 | 470 | 47 | 17 | 14 | 14 | 34 |
| 1780 | 524 | 41 | 21 | 15 | 19 | 37 |
| 1810 | 666 | 35 | 17 | 17 | 24 | 44 |
| 1840 | 887 | 27 | 12 | 24 | 27 | 56 |
| 1870 | 1260 | 19 | 7 | 29 | 33 | 67 |

classification, an undetermined but small percentage of smallholders (*Teilhüfner*; *Gärtner*) has a "peasant" as father who was also already a smallholder. In the case of change of occupation and residence, status at a mean age of about 40 years was the one fixed determinant for classification.

As a tradeoff between research economy, validity of content and statistical reliability the following categories were used:

*A. Rural population* (see Table 2):

1. Peasants (*Vollbauern; Anspanner, Hüfner, Pferdner*)
2. Smallholders (*Teilhüfner; Gärtner*)
3. Craftsmen (*Landhandwerker)* and traders (*Ländliche Gewerbetreibende*)
4. Cottars (*Häusler*) and other unskilled labor (*Hausgenossen*) as lodgers
5. Clericals in a broad sense (*Pfarrer; Schulmeister; Verwalter*)
6. Nobility

Smallholders were also called gardeners. Cottars had a dwelling with a very small plot of land and had to sell some of their labor to survive. With respect to their social status craftsmen and traders were also cottars, some of them gardeners. The figures were coded in such a way that a separate analysis of craftsmen, with or without land, was always possible.

Because gardeners and other smallholders had their own plot of land of a size of one eighth, one quarter or one half of a peasant's share, they were not proletarians. In this case, Tilly (1984; p.31) has misinterpreted the classification by Blaschke (1967) who, in his turn, created the category "in-dweller' (*Inwohner*) and thought it would be a good and general substitute for lodgers (*Hausgenossen*) and servants. However, in a very detailed analysis we could prove (see again the German publications by Weiss 1989a and 1991) that the term "in-dweller" (*Inwohner*) is misleading because in the 16th and 17$^{th}$ centuries in some parts of Saxony everybody could be an *Inwohner* – which denoted nothing more than an inhabitant in our modern sense of the word; i.e., an "*Inwohner*" (a lexically older form of *Einwohner*, "inhabitant") could be a peasant, gardener or cottar. To be a lodger was a status of married men only in very young years. Later most of them acquired their own house. Permanent lodgers are very rare in Saxony. In the 19$^{th}$ century they are more and more common, but do not exceed 3% of all families where the husband is 40 years old, not even in mountainous regions.

*B. Urban population:*

1. Craftsmen
2. Small tradesmen (*Selbstandige Kleingewerbetreibende*)
3. Peasants as citizen
4. Proletariat
5. Upper stratum (*Besitz-und Bildungsburgertum*)
6. Clericals ("*besitzlose Intellektuelle*")
7. Nobility

Because marriages among the offspring of urban craftsmen and small businessmen and proprietors were very common, in most tables the two categories could be added together with the peasants as citizens, who were always very few in or around Saxony towns. In small towns, some craftsmen may belong to the upper stratum, but this is not the usual case. However, the classification into the categories of craftsmen, tradesmen, and upper stratum was not always unequivocal, because of the shortage of information about actual wealth and power especially in the 16$^{th}$ and 17$^{th}$ centuries. A consequence could be a slight overrepresentation of well-to-do-families in the period before 1650, since for such families the sources are already better and more detailed. On the contrary,

**Table 3**

**Social mobility (in %) of children of peasants: Saxony (without Upper Lusatia) 1595-1870.**

| | the sons are (the daughters are married with) | | | | | | | Children per 100 fathers |
|---|---|---|---|---|---|---|---|---|
| | Peasant | Smallholder | Craftsman | Cottar | Clerical | Inhabitant of a town | n | |
| 1595 | 85 (79) | 7 (10) | 2 (2) | 2 (2) | 1 (2) | 3 (5) | 246 (165) | 110 |
| 1630 | 88 (82) | 6 (10) | 2 (5) | 1 (1) | (0.4) | 4 (2) | 344 (239) | 101 |
| 1660 | 80 (71) | 9 (11) | 5 (8) | 2 (3) | 2 (2) | 3 (6) | 411 (288) | 101 |
| 1690 | 77 (69) | 11 (13) | 4 (8) | 3 (4) | 2 (1) | 4 (6) | 529 (401) | 111 |
| 1720 | 76 (68) | 12 (18) | 3 (6) | 5 (4) | 0.4 (1) | 4 (4) | 494 (412) | 111 |
| 1750 | 73 (66) | 13 (14) | 5 (7) | 4 (6) | 1 (1) | 5 (6) | 407 (370) | 113 |
| 1780 | 68 (56) | 19 (23) | 4 (8) | 4 (3) | 2 (1) | 4 (10) | 309 (274) | 118 |
| 1810 | 65 (53) | 15 (21) | 7 (12) | 5 (5) | (1) | 8 (9) | 224 (222) | 134 |
| 1840 | 59 (50) | 11 (17) | 10 (15) | 8 (8) | 2 (2) | 11 (7) | 224 (225) | 137 |
| 1870 | 51 (43) | 12 (11) | 11 (19) | 14 (12) | 4 (4) | 15 (10) | 186 (210) | 163 |

it was difficult to fill the quota of the proletarians, who had fewer surviving children and because of that are underrepresented in unselected pedigree files before 1800.

**Table 4**

**Social background (in %) of cottars and other unskilled labor: Rural population of Saxony (without Upper Lusatia) 1615-1870.**

| Their fathers (fathers-in-law) were | 1615[1] | 1660 | 1690 | 1720 | 1750 | 1780 | 1810 | 1840 | 1870 |
|---|---|---|---|---|---|---|---|---|---|
| Peasants | 30 | 21 | 24 | 21 | 12 | 13 | 14 | 11 | 8 |
| | (50) | (41) | (25) | (21) | (21) | (8) | (17) | (12) | (13) |
| Smallholders | 22 | 13 | 13 | 13 | 11 | 17 | 18 | 12 | 8 |
| | (8) | (14) | (11) | (17) | (9) | (16) | (19) | (12) | (12) |
| Craftsmen | 4 | 11 | 24 | 14 | 17 | 13 | 17 | 20 | 27 |
| | (17) | (9) | (23) | (22) | (21) | (25) | (15) | (29) | (28) |
| Cottars | 39 | 53 | 34 | 49 | 53 | 51 | 47 | 52 | 51 |
| | (17) | (32) | (33) | (34) | (46) | (43) | (43) | (41) | (35) |
| Clericals | 4 | | | 3 | 2 | 1 | | 2 | 1 |
| | | | (2) | (2) | | (2) | (1) | (1) | (2) |
| Inhabitants of a town | | 3 | 6 | | 5 | 5 | 3 | 3 | 4 |
| | (8) | (5) | (8) | (3) | (4) | (5) | (4) | (5) | (7) |
| n | 23 | 38 | 71 | 108 | 123 | 89 | 76 | 164 | 204 |
| | (12) | (22) | (57) | (87) | (112) | (83) | (72) | (153) | (192) |
| Percentage of rural population | 3 | 5 | 8 | 12 | 15 | 13 | 14 | 23 | 29 |

[1] Mean of the two generations 1595 and 1630

**Social Mobility and the Origin of the Rural Proletariat**

Because in Saxony the partition of family-sized farms was forbidden by law, the number of such farms remained nearly the same during the whole period investigated and offers a unique opportunity to analyze the social fate of the surplus population of these farms.

The growing number of surviving children of peasants (see Table 3, last row) had the inevitable consequence that a growing percentage were downwardly mobile. From 1585 to 1780 the absolute number of smallholders and their families rose from 21,000 to 110,000, reaching its maximum about 1810 with 113,000 and then declining to 88,000 in

1870. The downward mobility of peasants' children into smallholder positions reflects this trend.

Also, the absolute number of rural craftsmen was always growing: from 5 per 1,000 rural inhabitants in 1565 up to 55 in 1870. During the three centuries in each generation (see the detailed tables in Weiss 1991) about one third of all smallholders, and between 8% (1750; 1870) and about 20% of all rural craftsmen and their wives, were sons and daughters of peasants. The percentage of rural craftsmen who were sons and daughters of smallholders was very similar.

The cottars and unskilled lodgers never reproduced more than about 50% (see Table 4), the rural craftsmen never more than 55%. Because there was often no social distance between a weaver (classified as a craftsman) and a handworker (classified as a cottar), and both, judged from tax lists, occupied cottages of low value, the intermarriage rate between craftsmen and cottars was always between 15 and 30%, but in both directions without any substantial surplus at any time. Form statistical facts we can and we must conclude that the proletariat of Saxony was the surplus offspring of the landholding peasantry, either of the first generation or of the second and following generations, mediated by smallholders, who in their turn also had a surplus but lower than that of full peasants. Tilly's hypothesis is not supported by any fact of social mobility and is no more than a neo-Marxist illusion.

From 1756 to 1773 the Saxony state underwent a deep political and demographic crisis, culminating in the famine of 1772 where in mountainous regions about one tenth of all cottars starved to death. Therefore, the reduction of the proportional share of cottars from 1750 to 1780 (see last line below) is not a byproduct of sampling but a real phenomenon. (Interestingly, the percentage of rural craftsmen, always highly correlated with the percentage of cottars, was not affected by this famine to such an extent. The cottars were poorer than the craftsmen.)

Already by the middle of the 16$^{th}$ century in the 4 villages of the parish Markersbach in the Erzgebirge in Saxony, nearly half of the population were day laborers and craftsmen dwelling in cottages, the other half peasants and non-agrarian upper stratum. During 1547-1791, in the first marriage of proletarian families 4.8 children were born, of which two thirds died before reaching the age of marriage and only 1.6 actually married (Weiss 1981). In contrast, in non-proletarian families 6.8 children were born, of which half, i.e. 3.4 married. Where the father-in-law was also a landholding peasant, even 7.6 children were born. In this parish, in 83% of proletarian families the father or mother or both died before the mother was 45 years old, i.e. the children became half-orphans or orphans before they themselves reached the age of marriage. Because most of the relatives of such children were also poor, their chance of surviving a famine such as that of 1772 was very small. Fathers often died as young as the mothers, in accidents during the work at the hammers, in the ironworks and in mines, or as foresters. The mothers were poorly fed and consequently of poor health, hence their overall fertility was lower in comparison with peasants' wives who married on average one year earlier. Only in the age cohort from 25-29 was the fertility rate equal. In all other cohorts, proletarians' wives gave birth to fewer children.

Because we have no representative sample based on family reconstitution all over Saxony we have to avoid a final conclusion. It seems by no means impossible that there were periods of prosperity where the proletarian cottars were able to produce a slight

**Table 5**

**Social mobility (in %) of children of cottars and other unskilled labor: Rural population of Saxony (without Upper Lusatia) 1660-1870.**

| | The sons are (the daughters are married with) | | | | | | |
|---|---|---|---|---|---|---|---|
| | Peasant | Smallholder | Craftsman | Cottar | Clerical | Inhabitant of a town | n |
| 1660 | 13 (21) | 15 (16) | 20 (21) | 44 (37) | 2 (2) | 7 | 46 (19) |
| 1690 | 13 (32) | 13 (10) | 30 (20) | 38 (32) | (2) | 6 (3) | 64 (59) |
| 1720 | 11 (13) | 8 (6) | 25 (33) | 51 (39) | 2 (3) | 5 (6) | 105 (78) |
| 1750 | 3 (11) | 11 (10) | 17 (20) | 60 (46) | 2 (2) | 9 (11) | 108 (110) |
| 1780 | 3 (9) | 17 (19) | 25 (26) | 45 (39) | 2 (1) | 7 (7) | 99 (93) |
| 1810 | 5 (5) | 8 (12) | 30 (26) | 42 (38) | 1 (7) | 14 (11) | 86 (81) |
| 1840 | 2 (2) | 6 (7) | 24 (28) | 51 (46) | 1 | 16 (17) | 167 (131) |
| 1870 | | 3 (6) | 29 (33) | 49 (44) | 2 (1) | 17 (16) | 211 (153) |

population surplus, at least locally (for example, in the weaver villages around Zwickau after 1775). Such periods, which need a more thorough analysis, are from 1660 to 1750 and generally after 1780. Of course, in 1840 and the following decades, the rural proletarians produced a substantial surplus (but not higher than that of the peasant farmers).

The chances of social mobility are interconnected with the demographic surplus of the respective strata. In the 17th century the slight surplus of the peasants did not mean that each farm had a male heir. Therefore, sons of cottars had a small, but real chance, of becoming the proprietor of a farm by diligence or marriage. In the 19th century, the

**Table 6**

**Social background (in %) of urban proletarians: Saxony (without Upper Lusatia) 1690-1870.**

| Their fathers (fathers-in-law) were | 1690 | 1720 | 1750 | 1780 | 1810 | 1840 | 1870 |
|---|---|---|---|---|---|---|---|
| Urban proletarians | 46<br>(25) | 40<br>(41) | 44<br>(25) | 49<br>(28) | 40<br>(24) | 36<br>(22) | 23<br>(24) |
| Urban craftsmen and Small tradesmen | 27<br>(40) | 17<br>(35) | 24<br>(33) | 18<br>(34) | 17<br>(34) | 26<br>(29) | 23<br>(33) |
| Clericals | | | (4) | (6) | 3<br>(7) | (2) | |
| Men of the upper stratum | | | 4 | | | 2 | (2) |
| Inhabitants of villages | 27<br>(35) | 44<br>(24) | 28<br>(38) | 33<br>(31) | 40<br>(35) | 36<br>(47) | 54<br>(42) |
| n | 22<br>(20) | 18<br>(17) | 25<br>(24) | 33<br>(32) | 30<br>(29) | 50<br>(45) | 57<br>(55) |
| Percentage of urban Population sample | 4 | 4 | 6 | 8 | 8 | 11 | 12 |

surplus of peasants was extremely high and consequently their downwardly mobile pressure so strong that a cottar's son had practically no chance to be upwardly mobile in such a way (compare Table 5). The result was a dramatic increase of absolute numbers of rural cottars and concurrently an ever-increasing mobility toward the towns and their surroundings. The children of cottars had little to offer on the marriage market. In a very detailed study, combining family reconstitution with all other available sources, Herzog (1984) showed that in Lampertswalde, again a village in northern Saxony during 1700-1799, 4.6 children (arithmetical mean per marriage) inherited a total of 612 florins, which translates to 133 fl. per child. Of these, 5.4 children of millers inherited 2165 fl., i.e. 401 fl. per child while 3.3 children of cottars inherited 77 fl., only 23 fl. per child.

The period from 1750 to 1815 in Saxony has some characteristics of proto-industrialization (Mendels 1972). For example, the share of the rural population in the total population rose from 59% in 1750 to 64% in 1815. However, the links between the prosperity of a social stratum and its interdependence with all other strata, resulting in a

determined demographic and mobility behavior and transitions, need further and deeper elucidation.

**The Origins of the Urban Proletariat**

Concerning the origin of the 19th century urban proletariat, another neo-Marxist legend has achieved a special place in public esteem. Hartmut Zwahr (1978), who had analyzed in Leipzig a kind of roll for citizens with restricted rights (*Schutzverwandte*) from 1827 to 1867, came to the conclusion that the social fate of the proletariat is determined by an increasing tendency toward an "hereditary proletariat", i.e. a proletariat whose fathers were already proletarians. Zwahr understands this tendency as a prerequisite of the teleological mission of the proletariat in a Marxist sense. His deductions are here of no interest. What can be tested, however, is the empirical background of his hypothesis concerning the rise of an hereditary proletariat. Zwahr, adding the urban and rural proletarian fathers and always supporting his arguments by a wealth of empirical data, found that 43% of the proletarians were of non-proletarian background. Adjusting for some differences in classification of occupation and strata, this differs less than 5% from our data (compare Tables 6 and 8) and presents no true difference at al. What we must doubt, however, is the increasing percentage of proletarian parentage in succeeding generations of proletarians, at least during the period investigated.

In a period of economic growth and prosperity, where a given occupation (or social stratum) is also growing in absolute numbers, the relative share of those whose social origin is in the same occupation is declining and the relative share of those who are newcomers to the occupation is rising. This holds for rural smallholders and cottars about 1690 as well as for several urban trades, such as weavers about 1690, for tailors about 1720 and again about 1840, for bakers and butchers about 1840, and in villages and towns for stocking weavers about 1810. In these cases there are more new jobs than children of those who are already in the trade. Vice versa, a crisis in a trade is characterized by the opposite trend. About 1790, during the general crisis in Saxony towns, a record-high of more than 90% self-reproduction was recorded for clothiers, bakers and butchers. On the contrary, during the boom about 1870 for shoemakers and tailors, both with easy access for newcomers, the percentage drops below 30%.

There is no reason to believe that the general trend should be different with respect to the social background of proletarians (see Table 6). Also, before 1800 the self-reproduction of urban proletarians never exceeded 50%. Their high mortality always had to be balanced by newcomers from the countryside, mostly of non-proletarian background. After 1815 the numbers of urban proletarians began to rise rapidly, and these had to be more and more people pf non-proletarian origin.

In towns there are no marriages between the extremes of social stratification; upper and lower, i.e. proletarian stratum do not intermingle. There is only a certain downward mobility in cases of illegitimacy or poor mental health. The middle stratum, the craftsmen and small businessmen and salesmen which contribute always more than one half of the total urban population, intermarry with both upper and lower stratum, but only to a small degree. Up until the year 1800 from 70% to 80% of all craftsmen worked in the same occupation as their fathers, although only 20% of their wives are of the same origin. For the daughter of the middle stratum the marriage market was the whole occupational spectrum, and downward mobility into the proletariat was not uncommon.

**Table 7**

**Population surplus of peasants and spatial mobility (in %): Saxony (without Upper Lusatia) 1595-1870.**

| | Population surplus of peasants | Influx from countryside into towns | Spatially immobile (born in the same community) | Spatially immobile rural cottars | Influx into suburban villages from other villages | Immigration into Congress Saxonia |
|---|---|---|---|---|---|---|
| | 100% are, respectively, | | | | | |
| | total of peasants | total of all towns | total population | total of rural cottars | total of suburban villages | total population |
| 1595 | 110 | 8 | 67 | 69 | - | 4 |
| 1630 | 101 | 10 | 64 | 71 | - | 3 |
| 1660 | 101 | 13 | 63 | 58 | - | 4 |
| 1690 | 111 | 13 | 65 | 68 | - | 4 |
| 1720 | 111 | 15 | 64 | 68 | - | 3 |
| 1750 | 113 | 20 | 63 | 63 | - | 4 |
| 1780 | 118 | 18 | 59 | 56 | -9 (sic) | 5 |
| 1810 | 134 | 21 | 55 | 51 | 13 | 5 |
| 1840 | 137 | 26 | 49 | 47 | 20 | 6 |
| 1870 | 163 | 31 | 42 | 43 | 24 | 7 |

As a result of the industrial revolution the entire population became mobile to an extent never known before (see Table 6). In 1780 still 53% of all craftsmen worked in their town of birth, but by 1870 only 17% did so. While before 1700 only 2-3% of all inhabitants of larger towns migrated from more than 20 km distant, the respective percentages are in 1810 9%, in 1840 11%, and in 1870 19%. Another measure of the

**Table 8**

**Social background (in %) of the urban proletariat, including the inhabitants of urbanizing villages: Saxony (without Upper Lusatia) 1840-1870.**

| | 1840 | 1870 | 1840 | 1870 |
|---|---|---|---|---|
| origin in urban areas | all towns | | larger towns only | |
| Urban proletarians and cottars in urbanizing villages, respectively | 41 | 26 | 43 | 26 |
| Small tradesmen | 5 | 5 | 12 | 2 |
| Peasants and smallholders | 4 | 4 | 3 | 2 |
| Craftsmen | 14 | 19 | 11 | 18 |
| intermediate sum | 66 | 56 | 71 | 51 |
| origin in more remote villages | | | | |
| Peasants | 4 | 7 | 3 | 9 |
| Smallholders | 9 | 3 | 3 | 2 |
| Rural craftsmen | 9 | 13 | 11 | 13 |
| Cottars and other unskilled labor | 19 | 21 | 11 | 23 |
| Clericals | 0 | 1 | 0 | 1 |
| | 100 | 100 | 100 | 100 |
| n | 81 | 129 | 35 | 82 |

growing dynamics of Saxony economy and society, which in 1890 ranked even ahead of England and Belgium, is the growing migration of the hierarchy of central places. Before

1700 less than 10% of all inhabitants of the 14 largest Saxony towns came from smaller towns, in the 18th century about 15%, about 1840 21%, and about 1870 24%.

The picture of the origins of the proletariat in the urbanizing villages is incomplete. Beginning in 1890, a large number of villages become incorporated, and a dozen villages achieved the status of town. Before 1800 the population balance of these suburban villages against their more agrarian neighbors was even negative (see Table 7). The market control of the nearby towns rendered the development of trade and business more difficult and, consequently, the demographic surplus of these villages had to move out, not only to the adjacent towns, but also into more remote villages with better economic conditions. After 1815 the suburban villages began to grow into true towns or even, around Leipzig and Dresden, to become part of the nearby city.

There is a general decline in the percentage of urban proletarians with proletarian parentage from 1840 to 1870. In 1840, if we add urban (41%) and rural (19%) proletarian background (see Table 8), the sum is 60%. In 1870, 26% urban and 21% rural proletarian parentage add up to 47%. The corresponding sums of the larger towns are 54% in 1840 and 49% in 1870. In their suburbs the trend is even stronger: 56% in 1840 (among this 6% sons of cottars from remote villages) against 48% in 1870 (among this 27% sons of cottars from remote villages).

At some specific time there must have been a trend reversal, and Zwahr's hypothesis should be true in a later period. Whether this was about 1880 or about 1900, neither our empirical study (terminating with the year 1870) nor contemporary statistics can provide a clue. Influx into the cities remained at a high level up to 1914, and further empirical work is needed.

Our study has addressed important questions of social, economic and demographic history on the basis of territory-wide representative sampling extending over a range of more than 300 years and 10 generations. Far from perfect, the method holds both promise and stimulates further questions.

Stratified sampling on the basis of representative data from family reconstitution, exhausting the totality of relevant sources, should be the ideal. In this sense our study should be understood as a small step toward a statistical thermodynamics of human society, where the individuals are the atoms and their multiplying and shuffling in social and geographical space represents the very essence of the dynamic of history.

**Summary**

Saxony is the only large European territory that provides reliable data on the absolute increase of the different social strata in modern time. Five representative samples were drawn from genealogical files, each covering at least a 50-year-period and covering some 11,000 married couples. On this 10-generation database the social and spatial mobility of the main social strata could be studied.

The special target of this contribution are two neo-Marxist legends on the social and demographic origins of the proletariat until 1870 which claimed a disproportionate natural increase of proletarians, and the constitution of an hereditary proletariat. The data, however, tell another story and show that rural and urban proletarians are formed from the socially downwardly mobile sons and daughters and grandchildren of peasants.

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