

Data versus theory: late nineteenth century narratives of migration and urbanisation

Beryl Nicholson,
12 Lavender Gardens,
Newcastle upon Tyne NE2 3DE, UK
Phone/fax +44-191-2812068
e-mail beryl1@research32.freemove.co.uk

INCS Conference Use Only; Not for Distribution or Quotation

The nineteenth century saw an unprecedented and rapid growth of towns and cities, and for the first time urbanisation was accompanied by an absolute population decline in parts of the countryside (Bleicher, 1893:61; Bücher, 1893:257; Ogle, 1889). To this was added the perception that there was an increasing mobilisation of society that gave rise to some anxiety (Bücher, 1893:257, 302). A director of the Berlin's city statistical office referred, not with approval, to the movements of people he observed within towns as 'urban nomadism' (Schwabe, 1874:29). Rare voices suggested that this perception was due to the greater volume of observations that had made people more aware of movement (Bleicher, 1893:59), but the predominant view was that there was 'colossal mass movement' (Bücher, 1893:266), and this was exceptional. Like earlier precedents (urbanisation in the middle ages was cited), it would be temporary (Bücher, 1893:302, 304), and eventually calm would be restored.

The growth of state bookkeeping of populations as the century progressed soon began to produce material that, while not specifically collected for the purpose, could be used to seek answers to questions about urbanisation and migration. The institutionalisation of the collection of statistics led to the growth of a body of professional statisticians whose curiosity was aroused by their findings, and undoubtedly also by what they observed around them. Notable were the German municipal statistics offices, which as well as compiling statistics, were depositories for the data of police registrations of change of domicile (Böckh, 1890:21-22; Dupâquier and Dupâquier, 1985:275-278). The rapid spread of ideas, the evolution of statistical instruments and their standardisation, owed much to the early emergence of national statistical societies, the formation of an international professional body, and, from mid-century, the work of its regular international congresses (Dupâquier and Dupâquier, 1985:304ff.). Findings on many social issues were published in journals, which, along with statistical publications, were widely exchanged, as lists published periodically in The Journal of the Royal Statistical Society, in London, and regular comment in German publications show, and no less widely read (see e.g. Christophersen, 1975:IX).

Early studies of urbanisation

Early censuses consisted of straightforward counts of persons and some of their characteristics. The earliest studies of urbanisation (which were not studies of migration *per se*, though they often claimed to be) seized on census data on place of birth which began to be collected from mid-century onwards. By comparing place of birth with place of residence, they plotted the cumulative outcome of movement up to the date of the census (see von Mayr, 1876:3). A paper read to the Historic Society of Lancashire and Cheshire in 1859 used birthplace data from the British census of 1851 (and not inconsiderable speculation inspired by notions from political economy) to construct a schematic picture of movement to towns:

'the increase of population, by immigration, ... has been principally derived, by each district, from those in its own immediate vicinity, and ... this has caused a further but less immigration from other and more distant districts into those immediately surrounding the increasing place.

.....

Every place of considerable increase no doubt draws a portion from longer distances ..., but it is conceived that the increase derived from places comparatively near is always much greater than that from a distance.' (Danson and Welton, 1859:48-49).

The director of the Bavarian statistical bureau, Georg von Mayr, enthused by the first census statistics of birthplace in Germany in 1871, outlined an ambitious study intended to show rural-urban migration to communities of different sizes from the areas around them, arranged in concentric circles (von Mayr, 1876:1-3). He had, however, to concede that its execution, which entailed the construction of huge tables, was prevented by unsurmountable difficulties, and contented himself with some modest examples (ibid.:5).

An alternative execution of very similar ideas was that of E.G. Ravenstein, who in 1876 published a series of papers with maps based on data from the British 1871 census (Ravenstein, 1876). These articles prefigured his very substantial paper published in 1885, in which he used birthplace data from the following census. This article, 'The Laws of Migration', has become perhaps the most frequently cited in the whole of migration literature, and among the most influential. In it, he drew together a number of ideas about movement to towns and formulated a series of propositions, about directions and distances of movement, and about the persons who moved. These were inferred rather than demonstrated by the evidence, which was supplemented by speculation: 'were we in possession of information enabling to do this, we should undoubtedly find ...'. The propositions consist of rather more than the list of 'laws' found towards the end of the article (Ravenstein, 1885:198-199) that are often mistakenly taken as a summary (e.g. Lee, 1966: 47-48; Grigg, 1977). Together they amounted to an imaginative and ingenious, but hypothetical, explanation of how the observed patterns of distribution of people born in each county might have come about. The most influential of the propositions, an idea that was already current (see Danson and Welton, 1859:46; Ogle, 1889:210, 211), but for which there was no direct evidence, envisaged movement to towns as consisting of many moves over short distances which, together, resulted in a considerable shift of population. This idea, more than any other, has become part of accepted wisdom (Nicholson, 1992).

That it was Ravenstein who became associated with these ideas, though they were so widely shared, can be attributed in part to the title of his article, but also to the coherence and panache with which he presented them. No less important were his persuasive, not to say tendentious, use of maps, which 'convey to the eye the meaning of internal migration' (Weber, (1899) 1963:267), and his graphic imagery.

'The more distant from the fountain head which feeds them, the less swiftly do these currents flow; and whilst they sweep along with them many of the natives of the counties through which they pass, they deposit, in their progress, many of the migrants which have joined them at their origin' (Ravenstein, 1885:191).

The statisticians

Concurrently with this speculation, some of those charged with collecting the statistics, were making the first attempts to chart systematically patterns of moves, as opposed to the outcome of movement. As well as census data, they made use of police registrations of change of domicile. Comprehensive materials were found in cities such as Berlin, where the compilation of statistics had begun in January 1838 (Böckh, 1884:85). They were the basis for an early study of residential mobility within the city by Schwabe (1874), the then director of the city's statistical office.

The main concern of the statisticians, to which a subsequent director in Berlin, Richard Böckh, made a significant contribution, was the accuracy of migration statistics and the information they conveyed. In the face of the undoubted incompleteness of police registration data, the sources of which he carefully analysed, Böckh drew on census data to arrive at estimates of the volume of gross migration into and out of Berlin each year (1884:85). In extensive, even unwieldy, tables (Böckh, 1884:142-146) he demonstrated that the population growth that resulted from migration was much less than the volume of movement might suggest, due to the high proportion of return movement and flowthrough¹ (Böckh, 1884:87-89; Böckh (ed.) 1984:67-70). His purpose was to produce the best possible

data and to extend its bounds, which he undoubtedly did, but he made only the briefest of comments on it, beyond paraphrasing the numerical data.

In 1890 Heinrich Bleicher was appointed director of the municipal statistical office in Frankfurt am Main, where the 1885 census, had included for the first time an optional question on duration of residence. Not content with analysing the significance of those results (Bleicher, 1890:274, 278-291), he compared them with the evidence from police registrations to emphasize the rapid turnover of the population, whose frequency and causes he considered needed investigation (Bleicher, 1890:275-276). Following the census in 1890 he extended the analysis of duration of residence data to an early study of persistence, which supported his analysis of population turnover by showing that recent arrivals were the most prone to leave again (Bleicher, 1895:21, 24). In Bleicher's view, census data were inadequate for investigating migration (1895:32). He argued that registration data, if used with a degree of critical circumspection, could form the basis of 'migration statistics commensurate with all requirements' (Bleicher, 1893:2, 62). He used police registration data for, arguably, his most important work, a study of 'the fluctuating population, movements into and out of Frankfurt, in the year 1891. It was a detailed examination of the length of stay, how it varied between those who left in different months, and different occupations (Bleicher, 1893:52)),

Similar observations of population movement were being made independently by early social scientists, using what we would now refer to as qualitative methods. In the volume of Charles Booth's *Life and Labour of the People in London* entitled 'Influx of population', its author, Llewellyn-Smith, implicitly questioned the premise of its title. He noted that there existed 'migratory habits among the people', '(b)ut a very large part of this admixture of population merely results from the ordinary ebb and flow of labour' and added that 'only by a straining of language could we class it as an "influx"' ((1889) 1904:61). 'The interest of the migration from the country to East London therefore lies in the interchange rather than the addition of population, for direct addition there is none' ((1889) 1904:65). To this he added a fictional narrative of the course of migration (Llewellyn Smith, (1889) 1904: 130-135), deduced from his findings, which was broadly consistent with the findings of the statisticians.

Political economists

In the 1890s theoretical, as well as empirical studies, of migration and urbanisation began to appear in the increasing number of important periodicals devoted to economics, statistics and society, indeed the inaugural volume of *Allgemeines Statistisches Archiv* contained two such articles. They drew not only on the birthplace data in censuses (Brückner, 1890:167-173; Schumann, 1890:503), but still more on the work of political economists on wages (ibid: 518, 536). They sought to theorise urbanisation, rather than migration as such. Political economy provided an analytical frame within which to fit it, and offered a means of providing 'rational', and hence plausible, explanations. These were sought in terms of the effects rather than the process of migration (Wirringhaus, 1895:2; Dupâquier & Dupâquier, 1985:307-308). Even those who were critical of contemporary slogans like 'Flight to the towns', because they overlooked the 'dense tapestry' of mutually compensating moves (Bücher, 1893:270), nonetheless classified movement according to its aggregate consequences for population growth, rather than the moves themselves (ibid: 262).

For the purposes of the political economists, birthplace data had major advantages compared with the data of actual moves. It limited the number of observations, and thus made it easier to get an overview of the mass of movements, and satisfactorily (as far as they were concerned) displayed their main features (Wirringhaus, 1895:25). Police registration data were criticised as unreliable, very incomplete, and of little use because they were only published for a few cities (Brückner, 1890:171-173; Wirringhaus, 1895:23). A later commentator, dismissed them in a footnote as obviously of little value precisely because they referred to cases of migration and not to the number of migrants (Weber (1899) 1963:248n).

Perhaps Wirminghaus revealed the true reason why they were not used when he wrote that they 'make the evaluation of the material more difficult in many respects' (1895:23).

Much of what was written at this time drew heavily on work from earlier in the century, and in some cases did little more than elaborate and consolidate it. Schumann, for example, deducing from wage theory, conceived movement on a concentric pattern (possibly influenced by von Mayr), in which larger places drew labour from their immediate vicinity and steadily fewer from further away. In this respect he was paraphrasing part of Ravenstein's best known law (see above) (Ravenstein, 1885:199). According to Schumann, the gaps, or 'holes' in smaller towns and rural areas, which were filled by seeking labour from further afield, were the result of the loss of part of their population not merely to a more distant area, but to mid-sized and larger towns (Schumann, 1890:519. See also Danson and Welton, 1859:46; Ogle, 1889:210, 211; Bücher, 1893:271).

Of all the accounts movement in this period, perhaps the most comprehensive was that by Wirminghaus, which accommodated most of the ideas already circulating and prefigured many that have reappeared in the migration literature since. He saw movement from the countryside to the towns as caused by the transfer of labour from agriculture to urban occupations, which he regarded as 'as much a natural as a necessary process' (Wirminghaus, 1895:18). Consideration of the streams of movement and the people who moved made him steadily more convinced that migration chiefly took place, as he put it, as a series of relays (*staffelweise*).

'... those who leave are replaced by in-migrants from neighbouring areas, in such a manner that the smaller places receive the population of the surrounding rural districts, while those who leave the small towns ... go by preference to larger urban centres' (Wirminghaus, 1895:174).

Where Ravenstein saw 'the desire inherent in most men to "better" themselves in material respects' (Ravenstein, 1889:286), Wirminghaus conceived the movement as a 'stepwise progress towards more favourable spheres of life' (Wirminghaus, 1895:174; c.f. Bücher, 1893:271), a more broadly defined social mobility which accompanied spatial movement to more urban places.

Conclusion

Behind these two approaches lay a latent conflict between those who were concerned with migration solely as a factor in the rapid urbanisation of the period, and those, who were far fewer, who had been carried further by their curiosity towards seeking to elucidate patterns of movement.

The political economists were able to fit their analyses into a pre-existing framework, one that enabled them to provide plausible explanations of their interpretations of limited data. No such readily available framework existed for those who sought to elucidate the patterns of movement. The statisticians produced detailed statistics of migratory movements and some remarkable studies, but their work was diffuse, and never developed into a narrative of migration. The attempts to develop forms of migration analysis which incorporated back and forth moves were limited to empirical presentations of data and straightforward verbal descriptions of what the statistics showed. For reasons of language the influence of their work has in any case been less than that of English-speaking writers. In defence of the statisticians, it must be said that they often undertook their studies against considerable odds. Bleicher's office, with a staff of only four, disposed of just one calculator (Reuff, 1965:128-130). Besides, the statisticians were public servants who had to attend to their official responsibilities before all else. Towards the end of the century, the scope to undertake such studies was further diminished by the steady reduction of the independence of the city statistical offices as greater uniformity was imposed from the centre (Dupâquier and Dupâquier, 1985:277-278). Rare qualitative studies, such as that by Llewellyn Smith did, it is true, tell stories (see above), but they were specific stories (as indeed the statistics were also

specific), and demanded imagination on the part of the reader to be developed into a more general story about migration. Thus, though the findings of the statisticians suggest that the models of the political economists are too simplistic, their failure to develop a more comprehensive alternative conceptualisation of migration meant that they did not present a challenge to them. By the turn of the century studies of moves that used police registrations were still being undertaken, but they bowed to the critique of the political economists, and filtered out the most frequent movers who caused 'difficulties' (Allendorf, 1901:20).

That urbanisation, rather than movement, had become the dominant interest of migration was unequivocally made clear in Adna Weber's magisterial and still influential review, **The Growth of Cities in the Nineteenth Century** (Weber, (1899) 1963), published as the century ended. By weaving into one narrative many of the results of the flurry of activity of the two decades preceding its publication, he did much to establish, perhaps more accurately, consolidate, an orthodoxy. By then, the dominant narrative of migration and urbanisation had become, and continues to be, one of relatively straightforward, one-way movement. It is against this background, that later researchers have continued interpreted movement and growth and change, even when their data allowed them to do otherwise, for movement continues to be as variegated now as it was in the past (see e.g. Nicholson, 1990).

In the nineteenth century, the study of migration appropriated the dominant ideas of its time and created a discourse able to bear some kinds of data, but not others. The cumulative result has been a narrative that has enabled these ideas to be assimilated to other established narratives, thereby gaining a wider currency than the more soundly empirically based work of the statisticians and others. As a more recent commentator has put it: 'Facts do not at all speak for themselves, but require a socially acceptable narrative to absorb, sustain and circulate them' (Said, 1984:14). The very modernist pursuit of seeking explanations for the social phenomena of migration and urbanisation provide the clearest possible demonstration of the accuracy of this post-modernist observation.

End note

1. The term 'flowthrough' refers to 'people who come from other towns, stay a while, and then move on' (Wylie (ed.) 1966:156).

References

- Allendorf, Hans 1901. *Der Zuzug in die Städte. Seine Gestaltung und Bedeutung für dieselben in der Gegenwart. Ein Beitrag zur Statistik der Binnenwanderung mit besonderer Berücksichtigung der Zuzugsverhältnisse der Stadt Halle a.S. im Jahre 1899.* Jena, Germany: Fischer.
- Bleicher, Heinrich 1890. *Die Ergebnisse der Volkszählung vom 1. Dezember 1885 zu Frankfurt am Main. IV Theil (Schlußheft): Tabellen zur Personalstatistik der Bevölkerung.* Beiträge zur Statistik der Stadt Frankfurt am Main 5(5):273-291.
- Bleicher, Heinrich 1893. *Die Bewegung der Bevölkerung im Jahre 1891, insbesondere Studien über die Wanderungen.* Beiträge zur Statistik der Stadt Frankfurt am Main. Neue Folge. Zweites Heft:1-2, 29-62, XXX-XLI
- Bleicher, Heinrich 1895. *Statistische Beschreibung der Stadt Frankfurt am Main und ihrer Bevölkerung. II Theil. Die innere Gliederung der Bevölkerung.* Beiträge zur Statistik der Stadt Frankfurt am Main Neue Folge. Drittes Heft:1-59.
- Böckh, Richard 1884. *Die Bewegung der Bevölkerung der Stadt Berlin in den Jahren 1864 bis 1878.* Berlin, Germany: L. Simion.
- Böckh, Richard (ed.) 1884. *Statistisches Jahrbuch der Stadt Berlin Tenth edition.* Berlin, Germany: P. Stankiewicz Buchdruckerei.
- Böckh, Richard 1890. *Bevölkerung, Statistisches Jahrbuch Deutscher Städte. 1. Jahrgang.* Breslau, Germany. Hrsg. Dr. M. Neef:13-54.
- Brückner, N. 1890. *Die Entwicklung der großstädtischen Bevölkerung im Gebiete des Deutschen Reichs,* Allgemeines Statistisches Archiv 1(1):135-184, 615-662.

- Bücher, Karl 1893. Die inneren Wanderungen und das Städtewesen in ihren entwicklungsgeschichtlichen Bedeutung. In Die Entstehung der Volkswirtschaft. Tübingen, Germany: Laupp'schen Buchhandlung:251-304.
- Christophersen, H O 1975. Innledning, in Eilert Sundt, Om dødeligheden i Norge-Om giftermål i Norge. Verker i utvalg 2. Oslo:Gyldendal:VII-X.
- Danson, J.T. and T.W. Welton 1859. On the population of Lancashire and Cheshire and its local distribution during the fifty years 1801-51, Transactions of the Historic Society of Lancashire and Cheshire XI:31-70.
- Dupâquier, Jacques and Michel Dupâquier 1985. Histoire de la démographie. Paris: Perrin.
- Grigg, D.B. 1977. E.G. Ravenstein and the "laws of migration", Journal of Historical Geography 3(1):41-54.
- Lee, Everett S. 1966. A theory of migration. Demography 3(1):47-57.
- Llewellyn-Smith, H. (1889) 1904. Influx of Population. In Charles Booth, Life and Labour of the People in London. First Series: Poverty. 3. Blocks of Buildings, Schools and Immigration. London, England: Macmillan: 58-119.
- von Mayr, Georg 1876. Die bayerische Bevölkerung nach der Gebürtigkeit, m.w., Beiträge zur Statistik des Königreichs Bayerns 32:1-8.
- Nicholson, Beryl 1990. The hidden component in census-derived migration data: assessing its size and distribution. Demography 27(1):111-119.
- Nicholson, Beryl 1992. If the theory fits: a tale of academic self-delusion and policy-makers' expediency. International Journal of Urban and Regional Research 16(3):397-407.
- Ogle, William 1889. The Alleged Depopulation of the Rural Districts of England, Journal of the Royal Statistical Society 52(2):205-232.
- Ravenstein, E.G. 1876. Census of the British Isles, 1871, Geographical Magazine 3:173-177, 201-206, 229-233.
- Ravenstein, E.G. 1885. The Laws of Migration, Journal of the Statistical Society 48(2):167-227.
- Ravenstein, E.G. 1889. The Laws of Migration. Second Article, Journal of the Royal Statistical Society 52(2):241-301.
- Reuff, Paul W. 1965. 1865 1965 Hundert Jahre Statistisches Amt Frankfurt am Main. Aus der Geschichte der Frankfurter Statistik. Frankfurt am Main, Germany.
- Said, Edward 1984. Permission to narrate. London Review of Books 16-29 February:13-17.
- Schwabe, H. 1874. Das Nomadentum in der Berliner Bevölkerung. Berliner Städtische Jahrbuch für Volkswirtschaft und Statistik 1:29ff.
- Weber, Adna F. (1899) 1963. The growth of cities in the nineteenth century. A study in statistics. New York, New York: Cornell University Press.
- Wirminghaus, A. 1895. Stadt und Land unter Einfluß der Binnenwanderung. Ein überblick über den gegenwärtigen Stand der Forschung. Jahrbücher für Nationalökonomie und Statistik 64, Third series, 9:1-34, 161-182.
- Wylie, Laurence (ed.) 1966. Chanzeaux. Village in Anjou. Cambridge, Massachusetts: Harvard University Press.