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The Analysis and Measurement of the Service Economy in European Economic History

1. Introduction*

The economic history of Western Europe in the 19th century witnessed population change of around 0.82% a year, a growth rate in the region's product of 1.74%, and real per capita income increased at just under 1% per annum.¹ This growth was accompanied by structural change which refers to the fact that the rise in the volume of output was accompanied by the reallocation of the work force in a clearly defined way (see table 1) as well as the familiar change in the composition of national outputs.²

Table 1: The allocation of Labour in Europe, 1800-1900

Year	Agriculture	Industry	Services
1800 (a)	73%	16%	11%
1860 (a)	57%	26%	17%
1900 (a)	50%	29%	21%
1900 (b)	34%	36%	30%

Notes: (a) excludes Russia;

(b) Western Europe only.

Sources: Bairoch, Paul, Commerce extérieur et développement économique, (1976), p.26, and Bairoch, Paul and Limbor, J. M., Evolution of the Working Population in the World by Sector and Region, in: International Labor Review (October 1968), p.330.

* My ideas on the development of services in the 19th century were clarified by reading: Fuchs, V. *The Service Economy*, New York 1968; Singleman, J., *From Agriculture to Services*, London 1978, and Gershuny, J., *After Industrial Society*, London 1978. All three books are, however, focused on the 20th century.

1. Bairoch, Paul, *Commerce extérieur et développement économique*, Paris 1976, pp. 148-53.

2. Kuznets, S., *Economic Growth of Nations*, Cambridge/Mass. 1971, chs. 4 and 6.

This paper has been designed to stimulate discussion on the meaning and measurement of output from services during the first phase of modern economic growth (1800–1914). That design was in turn prompted by two suggestions: (a) that employment in services and output originating from the service sector are not well defined in the literature on structural change, and, (b) that the contribution of services to levels of income and productivity observed across Western Europe could produce a misleading impression of levels of development attained by different national economies before 1914.³

2. *Taxonomy: Intermediate and Final Output*

The service sector includes such a heterogeneous collection of economic activities that it is difficult to see why it survives as an analytical category in economic history. Nevertheless services do possess one obvious feature which distinguishes them from the products of agricultural, extractive and manufacturing industry. Services are *not* physical commodities which can be touched, weighed, measured or stored. Only physiocrats and Marxists would deny that services (as well as commodities) provide consumers with utilities and should, therefore, be counted and included in estimates of national output. For that purpose a service could be defined as something which satisfies demand, which adheres not to goods but to producers of a service and which disappears at the moment of production.

When historians try to measure the place of services in national economy they normally fall back upon the data and standard classifications used by censuses of population and production to distinguish employment and output “originating in” particular industries. In such documents certain industries (see the list under table 2 above) are deemed to produce services and others agricultural or industrial output. But censuses do not demarcate service *occupations* from those connected directly to the transformation of inputs into commodities. Yet historians are certainly aware that (for example) the German chemical industry employed doctors, that French steel firms had lawyers on the payroll and that factories employed servants in their canteens. Jobs and outputs emanating from these “service occupations” are, however, classified in studies of structural change as industrial jobs which generated industrial outputs.

Service occupations were not confined to service industries.⁴ As the division of labour extended over the 19th century the share of the work force undertaking service tasks within the productive system went up. In occupational terms there was surely a long term reallocation of labour away from cultivators, operatives, miners and artisans towards “service” jobs. That trend accompanied mechanization in industry and agriculture. Slowly but steadily the majority of workers moved away from direct involvement with cultivation and with the transformation of raw materials into finished industrial output. Our statistics on structural change grossly underreport the share of the work force whose jobs should be called services.

3. O'Brien, Patrick, and Keyder, Caglar, *Economic Growth in Britain and France*, London 1978, pp. 28–32.

4. Bauer, P., and Yamey, B., *Economic Progress and Occupational Distribution*, in: *Economic Journal*, 61 (1951).

My final taxonomical point concerns output which emanates from workers employed in the service sector. Historians appreciate the distinction between final and intermediate output. But once services are also viewed functionally it becomes clear that perhaps a majority of workers classified by censuses as employed in services did not produce services as final output. They were not, on inspection, doctors, lawyers, teachers, policemen, entertainers, domestics, etc.; from whose services consumers derived direct and defineable utilities. Rather they sold their labour time to producers of commodities to facilitate the transformation of inputs into goods or they assisted producers to distribute commodity output to consumers. A high but unmeasurable proportion of the output of the service sector was "intermediate" in the sense that it was closely linked to and dependant upon the production of primary and industrial commodities.

Unfortunately neither population nor production censuses assist historians who wish to divide the labour force engaged in the service sector between workers supplying final output on the one hand and workers instrumental in transforming raw materials into commodities and engaged in the distribution of those goods to consumers on the other. They are stuck with categories found useful by officials concerned to count and classify populations and to measure production in the 19th century. Detailed research on the original returns needs to be undertaken before anything firm can be said about the proportion of the work force employed in the service sector whose jobs simply complemented the production and distribution of commodities.

Meanwhile, and at this "premature" stage of the argument, I made some arbitrary assumptions in order to manufacture rough orders of magnitude. Taking population censuses for Britain, France, Belgium and Germany for selected years, just before 1914,⁵ I reclassified the work force employed in services by assuming:

- (a) everybody classified as employed in banks, insurance and finance, plus 50% of those listed under professional occupations of all kinds were deemed to be indirectly engaged in the production of industrial and primary commodities;
- (b) labour included in the censuses as employed in transport, commerce and wholesale and retail trade supplied services complementary to commodity production;
- (c) half of all "non-military" employees in Government service assisted indirectly in the operation, expansion and protection of agricultural and industrial production;
- (d) all other personnel (classified by the censuses as employed in services and including: the armed forces, domestic and personal services, 50% of the professions and 50% of Government employees) supplied their services as final output to consumers.

This crude manipulation of the primary sources suggests that very high proportions of those classified by 19th century population censuses (and by historians of structural change) as employed in services could be redefined (on a respecification of their functions in the economic system) as engaged in the production of industrial and agricultural goods. The proportions my arbitrary assumptions generated were: for Great Britain 48%, Belgium 55%, for France 63% and Germany 64%.

5. The data are tabulated in Bairoch, Paul, et al., *La Population active et sa structure*, vol. 1 de Statistiques internationales retrospectives, Brussels 1968.

But whatever definitions are adapted to rework the available data on the deployment of the work force the basic point that the majority of men and women (conventionally classified as employed in services) worked to facilitate the production and distribution of commodities will stand. Furthermore rates of growth of employment in different branches of the service sector reveal that work forces engaged in activities connected with industry and agriculture (particularly transport, finance and distribution) increased more rapidly than work forces employed in sub sectors supplying services for final consumption. Over the 19th century services grew as some function of commodity output and the long run development of Western Europe witnessed a substitution of commodities for services in final consumption. The economies of early modern Europe consumed higher proportions of services partly because of low productivity and relatively high prices in commodity production and partly because of an abundant supply of labour in relation to the demand for workers from agriculture and industry. Modern economic growth gave people their opportunity to consume more goods and the labour force was (despite the misleading impression derived from census classifications) reallocated towards the production of commodities.

3. *The Service Sector and Economic Development*

But this hypothesis seems to receive little support from the literature on structural change which is not inclined to "associate" the long term (1800-1914) rise in per cap-

Table 2: Share of the Labour Force Employed in Services: 1840's to 1900's

Country	1900-10	1880-90	1860-70	1850-60	1840-50
Netherlands	39%	36%	34%	31%	
Great Britain	38%	35%	30%	28%	30%
Norway	34%	28%	25%		
Denmark	33%	22%	22%	22%	
Belgium	31%	24%	18%	16%	13%
Switzerland	28%	16%			
France	28%	27%	22%	21%	22%
Spain	24%	16%	16%		
Sweden	27%	24%	19%		
Germany	22%	16%			
Italy	18%	19%	16%		
Austria	18%	21%			

Services include: transport, storage, communication, public administration, armed services, professional and business services, entertainment, recreation and personal services. The ratios relate to a particular year during the decade specified.

Sources: Bairoch, Paul, et al. *La Population active et sa structure* (1968) and Kuznets, S. *The Economic Growth of Nations* (1971) and *Modern Economic Growth* (1966).

ita income with a reallocation of the work force towards commodity production (see table 2) or with any decline in the share of national output emanating from services.⁶

Except for Britain variations over the long run in the share of the service sector in GDP have not, however, been measured in current or constant prices. For Norway the share (in current prices) went up by 5% points between 1865 and 1910.⁷ Arthur Young estimated that 31% of Britain's national income for 1770 originated from services. By 1911 that share had risen to 55%.⁸ For the United States the proportion moved from 21% in 1839 to 33% six decades later.⁹ Furthermore such evidence as exists from the household budget surveys for the 19th century (conducted by Engel, Eden, Le Play and other investigators) suggests some positive correlation between household incomes and the share of household expenditure on services.¹⁰ Finally cross sectional data from national accounts for the contemporary period also reveals a positive correlation between levels of per capita income and the share of national income from services.¹¹

But historical trends cannot be inferred from cross country data for our own times, particularly as the correlation coefficient between levels of per capita income and the share of services in GDP (measured in current prices) for eight European countries for the period 1900-10 turned out to be extremely weak.¹² Evidence from household budgets is, moreover, inconclusive because although there is (as one would expect) some tendency for households with higher incomes to spend a higher percentage of their incomes on services, that tendency is not systematic across the income range. Nor is it inconsistent with a possible (indeed plausible) distribution of the data in which European households spent *lower* proportions of their incomes on final services in, say, 1910, than they did a century earlier. The correlation may persist but the mean proportion of total household income allocated to final services could in theory decline. At present the growth of output from final services has not been measured. To estimate it historians are required to measure the value (in constant prices)

6. Hartwell, R. Max, *The Service Revolution*, in: Cipolla, C. (ed.), *The Fontana Economic History of Europe*, vol. 3, London 1973.
7. Kuznets, S., *Modern Economic Growth*, New Haven 1966, chs. 3 and 8, and Katouzian, M. A., *The Development of the Service Sector: A New Approach*, in: *Oxford Economic Papers*, 22 (1970).
Kuznets, *Modern Economic Growth*, p. 89.
8. Deane, P., and Cole, W. A., *British Economic Growth, 1688-1959*, Cambridge 1962, pp. 156 and 166.
9. Gallman, R. E., and Weiss, T., *The Service Industries in the 19th Century*, in: Fuchs, V. (ed.), *Production and Productivity in the Service Industries*, New York 1969, p. 291.
10. Fishlow, A., *Comparative Consumption Patterns, etc.* in: Ayel, E. (ed.), *Micro Aspects of Development*, London 1973, and Minchinton, W., *Patterns of Demand, 1750-1914* in: Cipolla, C. (ed.), *Fontana Economic History of Europe*, vol. 3, London 1973.
11. Kuznets, *Economic Growth of Nations*, ch. 3.
12. I correlated the share of services to GDP (measured in current prices) to levels of per capita income measured in dollars for 1913. The per capita income estimates are from Bairoch, Paul, *Europe's Gross National Product, 1800-1975*, in: *Journal of European Economic History*, (Fall, 1976). The ratio of services to GDP was calculated from data in Kuznet's *Economic Growth of Nations*, ch. IV and Kuznets, *Modern Economic Growth*, ch. 3. The correlation coefficient for a sample of 8 observations was $r = 0.4$.

of output originating from the sale of services to consumers for base and final years. Both the output and inputs required to produce services should then be double deflated by indices which reflect movements in the prices of final output and the costs of capital and raw materials embodied in that output. If such estimates (in constant prices) could be manufactured they could then be compared with rates of growth of GDP in order to ascertain how the ratio of services to national output actually changed over the 19th century. Meanwhile, it cannot be taken as axiomatic that countries with larger shares of their work forces engaged in services and with bigger proportions of their national incomes originating from the service sector were more "developed" than their neighbours in Western Europe.

4. *Services and Per Capita Incomes*

In the last decade social accountants have moved forward in their attempts to devise proxies for the "outputs" provided by banks, shops, insurance companies, hospitals, public administration and other branches of the service sector.¹³ Unfortunately, the data at their disposal is rarely available to historians labouring to compile exceedingly rough figures for the 19th century and who are reluctantly compelled to measure service output as equal to the sum of factor incomes (employment times remuneration) earned by those classified by population censuses as employed in services. While such compromises are inevitable, they systematically bias the measured per capita incomes of countries with relatively large service sectors in an upward direction and thus lead to inflated notions of differences in levels of real per capita consumption attained by Western European economies during the 19th century. The force of this contention should become apparent as we now move on to consider: first forces behind the variations in the recorded levels of employment in services and secondly the factors which helped to determine the remuneration of those engaged in the service sectors of various European economies.

I have already argued that increases in the demand for labour to supply services was derived in large part from the growth of commodity output. But changes in the level or service sector employment connected with the production and distribution of agricultural and industrial output was not a simple function of the growth of those sectors. Among other things it also derived from the organization of industry and agriculture, the division of labour and the location of production. Figures in population censuses which record the numbers of people employed in services reflect levels of commercialization, urbanization and specialization attained by economies in the process of development. For example, the relationship between the share of commodity output marketed either inside or outside a country and the numbers of merchants, shopkeepers, carters, carriers, etc. will be obvious. But the level of employment in distribution also depended on the kind of services required and the preferences of consumers. Societies like Britain with a high import component in their consumption and which offered distribution services all hours of the day and night needed a larger work force to meet such demands.

13. Fuchs, (ed.), *Production and Productivity in Service Industries* and Moss, M., (ed.), *The Measurement of Economic and Social Performance*, New York 1973.

The association between the growth of towns and employment in services is also not difficult to discern. Between 1860–80 about 55% of the urban work force in the United States were employed in services and something like 60% of the additional jobs created in services between 1840–1910 could be explained by the reallocation of population between rural and urban areas.¹⁴ Again the mechanisms are not difficult to describe. As manufacturing activity located in towns so did services complementary to industrial production. Geographically concentrated populations also required more transport, distribution, environmental and other urban services.

In essence the growth of employment in services is yet another manifestation of Adam Smith's division of labour. That process proceeded not merely within the framework of an enterprise but as agricultural and industrial production grew this created possibilities for the development of firms specialized on sales, transport, finance, insurance, maintenance and other functions connected with the transformation and distribution of commodities. Classical style entrepreneurs who in the early stages of industrialization supervised nearly everything gradually evolved into formal organizations—firms, whose controllers found it efficient to “contract out” tasks tangential to their central objectives in order to realize economies of scale (e.g. the shift from private to public transport systems); and to reap advantages from purchasing specialized knowledge (e.g. from bankers merchants and insurance agents) and to eliminate the need to maintain underemployed employees for intermittent tasks such as repairs and maintenance.

Any explanation for the growth of employment in services solely in terms of demand would be seriously incomplete. For agriculture and for urban services, to some extent the supply of labour available created its own jobs. Urban history has reminded us that before 1914 services remained as an area of residual employment for thousands upon thousands of workers who could not obtain regular and better paid jobs in factories or farms. The sector almost certainly employed higher proportions of child, female and part time labour than was typical of industry or even agriculture. Apart from public transport, ratios of capital to labour for most branches of the services sector were low and flexible. Entry into service jobs through family firms or self employment (*isolé*) was relatively easy except for professional occupations which required real skills or at least paper qualifications. Thus the skill structure of the work force engaged in services was skewed towards the professional salariat at one end of the scale and a poorly educated and unskilled labour force engaged in transport, retail trade and domestic service at the other. Throughout Europe the service economy of the 19th century towns supported large numbers of underemployed workers who had somehow fitted themselves into an economic system which expanded too slowly in relation to the pace of population growth and internal migration to provide somewhat less than half of urban workers with jobs in manufacturing industry.

Turning to wages and salaries received by those employed in services over the 19th century, three observations seem valid. Firstly, long run trends in remuneration depended upon demands for labour in agriculture and industry and the growth of labour productivity in the service sector. Since the potential in most branches of that sector for both technical progress and more capital intensive methods of production

14. Weiss, T., *Urbanization and the Growth of the Service Workforce*, in: *Explorations in Economic History* (1974), pp. 242–58.

was limited, increasing the productivity of labour depended upon improving the quality of the work force and extending the division of labour in order to realize economies of scale and specialization. Apart from transport, productivity of labour in the service sector increased at rates below those achieved in industry and agriculture.

Secondly, population growth and high rates of internal migration to towns restrained the rise in the wage rates of unskilled service workers which then rose in large measure as a response to the growth of commodity output. But supplies of skilled and professional manpower available to the service sector were far less elastic basically because capital markets to support private investment in vocational training were almost non-existent and Government expenditures on education were negligible before 1914. Both private and public investment required to meet the growing demand for skilled, professional and managerial workers to fill higher level occupations in services was surely sub-optimal. In such conditions the salaries of skilled labour went up rapidly but (with the possible exception of engineers) there can be no assumption that the quality of the services offered improved in line with the additional remuneration commanded over time. It is far more likely that costs per unit of labour time rose without any significant improvements in productivity.

Thirdly domestic labour markets for recruitment to the professions to commerce and to public services exhibit few of the conditions prescribed for the operation of efficient and competitive markets for labour. This group of workers presumably enjoyed rents—that is by institutional and legal restrictions they managed to command wages and salaries above their social opportunity costs.

Now the threads of their argument can be drawn together. Europe's national accounts for the 19th century have inevitably measured net value added generated by the service sector as equivalent to estimates of factor incomes received by those employed in services. That procedure imparts an upward bias to measured national incomes of economies with larger shares of their work forces classified by population censuses as employed in services. Over the 19th century most of the growth of service occupations (regardless of whether these jobs remained institutionally or legally within the industrial or agricultural sectors or formed part of a sector of an economy demarcated by historians of structural change as services) can be attributed to the growth of commodity output. For some economies (Britain, Belgium and Holland come to mind) their levels of commercialization, urbanization and their organization of agriculture and industry promoted a division of labour which led to a more rapid emergence of a service sector which historians and social accountants readily demarcated from industry and agriculture. What is being claimed here is that differences across countries in the numbers classified as employed in services is not simply a manifestation of variations in the level of final output from services but also reflects the manifold ways in which the countries and regions of Europe organized their systems of production, located economic activity and carried on social life. The numbers in services also reflect the pressure which population growth exerted on rates of migration to towns. Urbanized commercial societies spawned larger service sectors not necessarily correlated with higher levels of final output and consumption. While services performed to produce and distribute agricultural and industrial commodities within the confines of rural and less commercialized societies are unlikely to be recorded in ways that can be estimated by accountants of national income. Once a cen-

sus has classified a worker as employed in distribution transport or some other branch of services his contribution to output is unlikely to remain unrecorded by historians. But the unspecialized and multifarious part time services performed in less commercialized economic systems are easily missed—and are always difficult to measure; particularly when national accounts can only be built up from the product side. Finally two basic assumptions almost invariably deployed to estimate service output are extremely dubious. First, I refer to the assumption that the work force in services was fully employed—surely a misapplied notion for a large percentage of unskilled labour employed in that sector. Secondly our historical accounts are again compelled to assume that the wage rates or salary and other figures we possess on the remuneration of workers employed in services reflect the social opportunity cost of labour. That premise is valid only for competitive labour markets. And few historians would be prepared to claim that the salaries of professional and skilled grades in services were determined by conditions which produced anything other than a tangential relationship between pay and the social value of the services produced.

5. Services and Economic Welfare

One of the main tasks of economic history is to measure changes in the welfare of populations over time and to compare levels of welfare across countries. To assist with that objective European historians have put together sets of national accounts which embody compromises between what is theoretically ideal and the data at their disposal. Although there are serious problems involved in the estimation of commodity output this paper has discussed the biases and ambiguities contained in the available estimates of service output. In brief, I have tried to argue that the available estimates of service output reflects the growth of commodity output and that urban commercialized economies generate higher levels of measured service output than less urbanized rural based economies. Part of service product (as estimated) reflects a real contribution to both international and to historical differences in consumer welfare. But some unmeasurable but perhaps significant share of the extra service output included in the national accounts of more urbanized economies reflects little more than differences in the location and organization of economic activity. Social accounts are simply recording the 19th century shift from household to market economies but they generate indices where that shift emerges (or is interpreted as) “extra” output.

But long before 1800 households allocated labour time to education, to the care of the sick, to entertainment, to protection, to repairs and maintenance and to the transport and distribution of agricultural and industrial goods they produced. Unfortunately, it is impossible to estimate much more than the value of the commodities produced and sold in early modern Europe. The national accounts now available for the years after 1800 pick up Europe’s long transition from household to market economies. In our times when the price of marketed services goes up, and households find they have more labour time available to them, the shift may be going the other way. The modern trend for bourgeois families to do their own (“unpaid”) cooking, housework, cleaning, repairs, maintenance, health care, education of the young, etc., assisted by labour saving gadgets, packet foods, do-it yourself tools, instruction manuals, etc. is familiar.

Meanwhile, to make valid comparisons of welfare over long periods of time or across countries seems to require sets of national accounts which measure changes in the *volume* of service output and a clear recognition that the majority of households of early modern Europe produced services. The current convention of measuring service output as the sum of factor incomes earned by those classified by censuses as employed in the service sector is clearly inadequate for the purposes of comparisons of welfare.

Finally, historians must be more careful in accepting the conventions adopted by economists and social accountants to measure economic progress. For example, conventional definitions of final output include all expenditures on services for the protection of people and property. Now no dispute could emerge in relation to the supply services which improved or added to social welfare. But social and urban history has again made us aware that an increased volume of "final" services which emerged when European societies became more urbanized served less to improve and rather more to defend or maintain an environment and ways of life which had for centuries been taken for granted. Examples are numerous and range from urban police forces to garbage collection, sewage and other services concerned to "maintain" the health, safety and comfort of populations concentrated in the confined spaces of towns. And there is no need to adumbrate upon those large transfer payments to domestic servants which were features of an age of surplus population, inequality in the distribution of income and another manifestation of the break up of household economies. Historians must continue to reflect on the nature and quality of economic change. They alone can supply a view of a world that was lost despite the "progress" which appears in the indices derived from national accounts.

Zusammenfassung: Messung und Analyse des Dienstleistungssektors in der europäischen Wirtschaftsgeschichte

Das westeuropäische Wirtschaftswachstum im 19. Jahrhundert ging mit einem Strukturwandel einher. Bis 1914 stieg der Anteil des Bruttoinlandproduktes, der dem Dienstleistungsbereich zuzuordnen ist, auf 25% bis 50% an, und der Anteil der im Dienstleistungssektor Beschäftigten wuchs von ungefähr 11% im Jahre 1800 auf 21% im Jahre 1900. Bei der fortschreitenden Arbeitsteilung im 19. Jahrhundert erhöhte sich der Beschäftigtenanteil in verschiedenen Dienstleistungstätigkeiten, wobei die verfügbaren Statistiken jedoch den Umfang der Dienstleistungsberufe in der Wirtschaft unterschätzen. Weitere Verzerrungen treten auf, weil die Mehrheit der Beschäftigten, die dem Dienstleistungsgewerbe zugeordnet wurden, tatsächlich keine Dienstleistungen für den Endverbraucher erbrachte, sondern ihre Arbeitskraft an Warenproduzenten verkaufte. Somit ist also ein großer Teil dessen, was die volkswirtschaftliche Gesamtrechnung als Dienstleistungen verbucht, tatsächlich Herstellung von Zwischenprodukten und folglich mit der Produktion von Primärgütern und Industrieerzeugnissen eng verbunden. Für die Zeit von 1900 bis 1914 kann man den Anteil der im Dienstleistungssektor Beschäftigten, die Zwischenprodukte herstellten,

in Großbritannien auf 48% schätzen, in Belgien auf 55%, in Frankreich auf 63% und in Deutschland auf 64%.

Wirtschaftshistoriker, die sich mit dem Strukturwandel befassen, schließen aus Zeitreihen und Querschnittsdaten auf eine Assoziation zwischen dem Niveau des Pro-Kopf-Einkommens und erstens dem Anteil des Bruttoinlandsproduktes, das dem Dienstleistungsbereich zuzuordnen ist, und zweitens dem Beschäftigtenanteil dieses Sektors. Dem ist zweierlei entgegenzuhalten: Zum einen konnten keine stabilen Korrelationen für das 19. Jahrhundert aufgestellt werden; zum anderen haben die vorliegenden Schätzungen das langfristige Wachstum nicht in konstanten Preisen gemessen, zu denen die Dienstleistungen dem Endverbraucher verkauft wurden. Dieser Index hätte dann mit dem Wachstum des Bruttoinlandsproduktes verglichen werden müssen.

Vielmehr wurde diese Assoziation aus Schätzungen abgeleitet, die in laufenden Preisen errechnet wurden. Das aber ist irreführend, denn man definiert diesen Output üblicherweise als die Summe der Faktoreinkommen, die aus diesen Dienstleistungen stammen. Der Beschäftigtenanteil des Dienstleistungssektors wurde aus folgenden Angaben abgeleitet: Aus der Wachstumsrate der Warenproduktion, aus dem Grad der Kommerzialisierung, der Urbanisierung und der Arbeitsteilung, aus dem Umfang des Bevölkerungswachstums und aus der Binnenwanderung. Die Lohnsätze im Dienstleistungsgewerbe dagegen wurden bestimmt durch die Produktivität in der Landwirtschaft und in der Industrie, durch das Bevölkerungswachstum und durch die Binnenwanderung (welche die Löhne der ungelerten Arbeiter niederdrückten) sowie durch das unelastische Angebot von Facharbeitern und hochqualifizierten Beschäftigten.

Der Beitrag entwickelt folgende Argumente:

1. Historiker haben das Wachstum der Dienstleistungen nicht in konstanten Preisen gemessen, und es gibt keine gesicherte Korrelation zwischen dem Niveau des Pro-Kopf-Einkommens und dem Anteil der Dienstleistungen am Bruttoinlandsprodukt.
2. Wenn Dienstleistungen als die Summe der Faktoreinkommen, die in diesem Sektor verdient wurden, gemessen werden und man mit diesen Daten Trendentwicklungen im Zeitverlauf oder das Pro-Kopf-Einkommen verschiedener Länder vergleichen will, so könnte das zu irreführenden Vorstellungen von den tatsächlichen Änderungen des Lebensstandards im Zeitverlauf und im Ländervergleich in Westeuropa führen.
3. Nach der üblichen Meßmethode erbrachten Dienstleistungen im 19. Jahrhundert einen großen und noch wachsenden Anteil am Volkseinkommen. Doch sind die bisher verwendeten Daten fehlerhaft, verzerrt und mehrdeutig. Was wir mit unseren Zahlen bis jetzt aufspüren, ist nur *teilweise* ein zusätzlicher Beitrag zur Warenproduktion für den Endverbraucher und für dessen Wohlfahrt. Hauptsächlich aber weisen die Zahlen lediglich die Verlagerung von bisher hauswirtschaftlich erzeugten Gütern auf den Markt nach.