ROAD AND WATERWAY INVESTMENT IN BRITAIN, 1750-1850

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S U M M A R Y

This thesis attempts to formulate estimates of the sums invested in roads and waterways in Britain in the period 1750-1850. The dearth of detailed reliable national returns before 1830 has made it necessary to examine the original financial records of individual turnpike and bridge trusts, of navigation companies and of parishes. The present study has therefore encountered problems of 18th century accounting procedure and administration, in addition to the wider conceptual difficulties inherent in a definition of investment. The complex interdependence of turnpike trustees, parish vestries and improvement commissioners has been scrutinised, as well as the role of central and local government in promoting transport improvements. The sample material collected has been used in conjunction with the available parliamentary returns to construct national estimates of capital formation in roads and waterways, both by average-per-mile methods and by extrapolation. The relationship between legislative activity and construction work has been investigated in detail; other independent indices such as the numbers of horses and carriages have been examined, and the impact of the development of the transport sector on the economy has been analysed. It is hoped that the final figures will be of value in introducing a further degree of quantification to the study of the British Industrial Revolution.

ACKNOWLEDGEMENTS

I should like to take this opportunity of recognising the invaluable comment and criticism made by Professor Pollard throughout, and by Dr. Broadbridge in the later stages of the present work. I also realise my debt to the Social Science Research Council for making possible the overall project to quantify British capital formation 1750-1850, of which the present study will doubtless eventually form but a small part.

I can never express my full gratitude to Mrs. Beynon for her immense labours on a very awkward and involved manuscript and even more complicated tables.

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A B S T R A C T

This study of the transport sector has developed from parts of a project on all aspects of investment during the British Industrial Revolution. The aim of the project and of the transport sector has been to investigate far more accurately than hitherto the real burden of investment on the economy in this period. The source material used has never previously been scrutinized in this way and it should permit a more accurate appraisal of the achievements of the Industrial Revolution. It is also expected to throw some light on the controversy in modern theories of economic development over the right amount to be invested for a given growth rate.

The transport system plays a role in economic expansion in lowering the cost of carriage and speeding communicatioh, but its relative importance and generating power are not clear. This study attempts an examination of the amount of capital invested in roads and inland waterways with some discussion of the means of carriage. The work done by others on railways, shipping and docks is also noted.

Chapter 1 of this study deals with the conceptual problems of investment in a dynamic situation and the particular difficulties when dealing with transport undertakings which have no normal life cycle.

Chapter 2 discusses in detail the problems presented by 18th century accounting techniques in the various transport undertakings investigated.

The formulation of the turnpike estimates has been arranged in four sections; Chapter 3 outlines the general method employed and then presents the detailed post-1822 returns of English turnpikes expenditure; Chapter 4 then explains the construction of estimates for the period 1750-1822 on the basis of an extrapolation of the post-1822 figures, with guidance from a sample of original 18th century material; Chapter 5 examines the role of the central government in road construction, explains the construction of estimates for Scotland and Wales, and gives the total British series; Chapter 6 then analyses some of the specific effects of turnpike outlay on labour supply and other related imputs.

Chapter 7 investigates expenditure on parish highways, urban streets and bridges.

Chapter 8 sets out in full the method of formulating estimates on investment in inland navigation.

Finally, Chapter 9 discusses the overall impact and burden of total road and waterway outlay on the contemporary economy.

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ABBREVIATIONS

A.C.A.	Aberdeen City Archives
App.	Appendix
Beds. R.O.	Bedfordshire Record Office
Birm. U.L.	Birmingham University Library
B.L.	Bodleian Library
B.M.	British Museum
B.T.H.R.	British Railways Archives
B.R.O.	Berkshire Record Office
Cam. R.O.	Cambridgeshire Record Office
C.P.L.	Chesterfield Public Library
C.R.O.	Chester Record Office
Derbys. R.O.	Derbyshire Record Office
D.R.O.	Devon Record Office
Do. R.O.	Dorsetshire Record Office
E.H.R.	Economic History Review
E.C.A.	Exeter City Archives
E.R.O.	Essex Record Office
E.R.R.O.	East Riding Record Office
Glam. R.O.	Glamorganshire Record Office
G.L.	Guildhall Library London
G.L.R.O. Mddx.	Great London Record Office (Middlesex)
G.L.R.O.	Greater London Record Office (County Hall)

G.M.	Guildford Museum
G.R.O.	Gloucester Record Office
Hants. R.O.	Hampshire Record Office
H.C.L.	Hereford City Library
H.R.O.	Hereford Record Office
Herts. R.O.	Hertfordshire Record Office
I.P.L.	Islington Public Libraries
J.T.H.	Journal of Transport History
K.R.O.	Kent Record Office
L.M.	Leicester Museum
L.R.O.	Leicestershire Record Office
Lincs. R.O.	Lincolnshire Record Office
M.C.A.	Manchester City Archives
N.C.O.	Northamptonshire County Offices
N.L.W.	National Library of Wales
N.R.A.	National Register of Archives
N.R.O.	Northamptonshire Record Office
Notts. R.O.	Nottinghamshire Record Office
Notts. U.L.	Nottingham University Library
P.P.	House of Commons Sessional Papers unless otherwise indicated
S.A.K.	Southwark Public Libraries
S.A.S.	Sussex Archaeological Society
S.C.A.	Southampton City Archives
S.C.L.	Sheffield City Library

S.P.L.	Swindon Public Library
S.R.O.	Surrey Record Office
So. R.O.	Somerset Record Office
Staffs. R.O.	Staffordshire Record Office
S.S.R.C.	Social Science Research Council
Warwicks. R.O.	Warwickshire Record Office
W.N.R.A.	Welland and Nene River Authority
W.P.L.	Westminster Public Libraries
W.R.A.	West Riding Archives

Where reference numbers are not givem, this is generally because the documents concerned have not been numbered and catalogued

CHAPTER 1

CONCEPTUAL PROBLEMS

Investment in the course of this study is taken to mean the creation of new assets and their maintenance for the purpose of improving means of transport and communication. This is in accordance with modern national income accounting procedure(1) since it is desirable to keep as closely as possible to this commonly accepted definition for purposes of comparison. Communications in this context consist of canals, river navigation, turnpike trusts, bridge trusts and parish roads. Railways, docks, harbours, and shipping are at least of equal importance, but work on these has been carried out by others.(2)

Investment as the creation of a new asset can be applied directly to canals as they are by definition a new and artificial creation. Similarly, where a road is driven through country where no route previously existed, a new asset is created. In this case as with canals, new land must be acquired, great earthworks constructed and thousands of tons of soil shifted where there had been no line of communication before. If the financial records concerned with these works still exist, then it is possible to build up estimates of a

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(1) C.H. Feinstein, Domestic Capital Formation in the U.K., 1920-1936, (Cambridge, 1968).

(2) A.G. Kenwood, "Railway Investment in Britain, 1825-1875", Economica, 1964, B. Mitchell, "The Coming of the Railway Age and U.K. Economic Growth", J.E.H., 1964. R. Craig, S.S.R.C. Conference, Paper on Shipping and Docks. R. Davis, The Rise of the English Shipping Industry in the 17th and 18th Centuries, (1962). D. Swano, "The Pace and Progress of Post Investment in England, 1660-1830", Yorks. Bull, Ec. & Soc. Research, 1960.

stock of canals or railways from a point where none had existed.[1] But for the majority of 18th and 19th century roads and rivers the problem is far more complex. Generally means of communication had existed in the past but were improved upon by the river navigation company or turnpike trust. It was not a question of opening up completely new routes as it was with the railways. It is therefore very difficult to state that a stock of roads was constructed at a certain date and was worn out at a certain date. All transport undertakings share the problem of an unusual life cycle with all the difficulties inherent in this for depreciation. Fishlow[2] considers depreciation to be the inverse correlation of repairs, since "the larger the sums attributed to maintenance the smaller the allowance for capital consumption, and so net investment remains the same" Feinstein[3] would possibly dispute this, but in the present study all sums spent on maintenance have been included as investment because of the difficulties of separating repairs and improvements. No allowance has therefore been made for depreciation.[4] The estimates produced by this project are therefore quasi-net investment outlays since most major transfer payments have been deducted but some current maintenance expenditure has not, a result principally caused by the

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(1) Feinstein, op. cit. 156
(2) A.Fishlow, American Railroads and the Transformation of the ante-bellum economy, (Harvard, 1965), p.372.
(3) Feinstein, op. cit., p.9., yet his comments on p.258 would seem to bely this.
(4) A.Fishlow, ibid. p.357, despite Feinstein's objections, since they do not seem valid for roads.

18th century accounting procedures[1] of the source material.

With roads the problem of defining is particularly acute since the renewing of a surface "simultaneously incorporates an element of partial renewal and of improvement".[2] Sometimes the process of improvement was taken so far that the 19th century road or river bore little resemblance to its 18th century predecessor let alone its 17th century form. This was so with the Holyhead Road[3] under Telford in the 1820's and with work on the Thames[4] and Aire & Calder[5] navigations during the same period. For such major construction works as Telford's lowering[6] of hills on the Holyhead road or the building of locks on rivers where none had previously existed, new assets were almost visibly created. But the problem of distinguishing investment is a very different matter in the case of repairs and maintenance. Modern national income accounting procedure treats repairs as a current cost, since expenditure on this item merely maintains an existing asset and does not create a new one. As with a great deal of national income accounting procedure, this distinction is theoretically

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(1) See below, chapter 2, p.28., passim.
(2) Feinstein, ibid, p.156.
(3) Parliamentary Papers, 1824, IX, 293.
(4) Thames Navigation Accounts. Chamberlain's account, City of London Guildhall Library.
(5) Aire & Calder account, British Railways Historical Records, York ACN. R.A.C.Y.2/1/1-35.
(6) The contemporary term 'lowering a hill' has been used as being far more descriptive of what actually took place in the 18th and 19th centuries than the modern term of levelling a hill. For confirmation of this, see Telford's plans for the Holyhead Road, P.P.1824, IX, 293.

straightforward. In practice it is frequently very awkward to apply. Machine tools are generally assumed to have a simple life cycle of about twenty years with repairs not incorporating improvements. But problems of life cycle and improvement can arise.(1)

With roads or canals the separation of repairs and improvements is sometimes quite impossible to make even today.(2) For railways a series of distinctions in borderline cases has gradually been developed.(3) The replacement of broken rails counts as repairs whereas the relaying of a complete section of track is considered as new investment.(4) Similar arbitrary distinctions can be drawn for roads so that small scale surfacing and repatching count as repairs whereas larger distances of resurfacing or renewal count as improvements. Although the distinction is arbitrary, accounting procedure can be made to reflect it. But since 18th century accounting did not generally do so, this study attempts to some extent to force modern concepts onto material which makes no allowance for them. However, it is possible to gain some separation of new work from maintenance by distinguishing increases in expenditure above a certain routine level. On the Exeter Canal for example, expenditure minus transfer payments in 1788-89 was £641 and had been approximately £500 per annum since 1781. In 1789-90 expenditure climbed to £1,376 and remained at an abnormally high figure

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(1) Feinstein, op. cit. p.8.
(2) Feinstein, op. cit., p.163 and see A.Fishlow, op. cit., p.372-373.
(3) For early confusion in railway company accounting procedure, see H.Pollins, "Aspects of Railway Accounting before 1868" in Studies in the History of Accounting, A.C.Littleton, B.S.Yamey, Sweet & Maxwell, 1956, repulished in Railways in the Victorian Economy, ed. M.C.Reed, (Newton Abbot, 1969).
(4) Feinstein, ibid, p.9, although Fishlow disagrees, ibid, p.372.

for the next two years.[1] Entries in the Receiver's account books are simply for labour and materials, but it is known from other corporation records[2] that considerable reconstruction was taking place in this period. On the Nene Navigation average annual net expenditure in the early 1790's was about £750 p.a. but from 1793-96 was well over £1,000 before it relapsed to £700 and below.[3]

In other important respects it has been possible to approach more closely the requirements of modern national income accounting procedure. There is a class of payment which national income accounting categorizes as a transfer payment. A transfer payment creates no new asset but merely transfers purchasing power from one party to another. This class of payment has been deducted where encountered. Payments for land and damages to land are prime examples of transfer payments.[4] When a piece of land changes hands nothing new is created for the national economy as a whole even though a transaction may have taken place between individuals.

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(1) Exeter Canal Accounts.

	£
1785-86	532
1786-87	587
1787-88	466
1788-89	641

E.C.A. Receiver's Accounts.

	£
1789-90	1,376
1790-91	2,890
1791-92	1,895
1792-93	567
1793-94	665

(2) Dr. E.A. Clark, The Estuarine Ports of the Exe and Teign, p.115-185 Ph.D., unpublished, London, 1957.

(3) Nene Navigation Accounts, W.N.R.A.

	£		£
1790-91	925	1794-95	1,017
1791-92	767	1795-96	1,254
1792-93	920	1796-97	708
1793-94	1,057	1797-98	630

(4) Feinstein, op. cit., p.11, and Fishlow, op. cit., p.351.

Items such as compensations to other concerns, dividends, rents and taxes clearly come into the same category and have been deducted wherever identified. However, Fishlow argues[1] that interest payments made while projects are under construction should be counted as legitimate investment expenditure. He agrees that such payments represent no increase in physical assets, but he considers interest to represent "two real inputs in the construction process, namely time and risk" He further considers that direct discount on shares and implied discount through payment of contractors in shares should also be taken into account. For he classifies a proportion of such discount as "the neglected interest cost paid during the period of construction and is admissible".[2] He supports both of these points by reference to the regulations of the Interstate Commerce Commission, but he is principally concerned with bonds and admits that "since equity has an infinite life, no discount on share capital is recognized".[3]

Since most British canals and railways were financed by equities rather than bonds,[4] the problem of discount has little relevance to the British situation. Equally, turnpike securities[5] had a life which was infinite for all practical purposes, and they were

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(1) Fishlow, op. cit., p.352
(2) Fishlow, ibid, p.353.
(3) Fishlow, ibid, p.354
(4) H.Pollins, 'The Marketing of Railway Shares in the First half of the 19th century', E.H.R., Vol. VII, 1954 See also, B.R. Mitchell, op. cit. for exact proportion of bonds to equities about 1/7th, p.331.
(5) W. Albert, English Turnpike Roads, 1660-1830, Ph.D., London, 1968, p.150.

apparently always issued at par in any case.

The payment of interest on ordinary shares during construction was generally resorted to as a desperate measure to encourage the taking up of new issues. However, such payments are seldom encountered for canals, possibly because of the system of calling up money on shares as and when required.(1) For example, a British canal company would call up ten pounds on a hundred pounds share every two months or so as it spent the money in hand. There is thus no payment for time under this system since the company did not immediately demand the full value of the share, and hold a proportion of the money idle while the shareholder could be using it elsewhere. Fishlow's other justification for including interest paid during construction as investment is the existence of the element of risk. Moreover, this seems very close to arguing that part of the dividends and interest payments after construction should be counted as an input contributing to maintenance.(2) Payments for interest during construction to bankers and treasurers have similar characteristics. Nevertheless, Fishlow would impute(3) interest payments to all those concerns which did not make them during the course of construction, including all those which did make such payments. For the purposes of this project, however, common national income accounting conventions have been followed in this case and all

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(1) Payment on shareholder's calls was prohibited in 1847. Thereafter interest payment was to bankers., H.Pollins, op. cit. See also A.G. Kenwood, op. cit.

(2) H. Pollins, op.cit,for the rife confusion between capital and current accounts.

(3) Fishlow, op. cit., p.353.

such interest payments have been deducted.[1]

Headings such as "incidentals", "sundries", or "utensils" have been included since these have generally been found to comprise expenses associated with management such as stationery, horses for supervisors, candles, tools, and so forth. Sometimes these headings can be very misleading as on the Medway navigation[2] where the item 'utensils' meant barge utensils. These were detailed as ropes, pitch, planks, nails, and so forth which are definitely current costs of trading and have nothing to do with the maintenance of the navigation. But this is an unusual case as navigation companies were usually forbidden to trade on their own account.[3] Part of the incidental expenses associated with management are concerned with routine maintenance and administration and are not strictly expenses related to investment. But equally, incidentals are highest when new construction is in progress and these differences should adjust in separating routine from construction peaks. Incidentals form only a small part of total expenditure in any case. In 1834 of a total quasi-net English expenditure of £1,128,380 on turnpikes, incidentals accounted for only £56,848.[4] Incidentals have therefore been included but the totals can be adjusted arbitrarily in the same proportion as distinctions between new work and

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(1) A.G. Kenwood, op. cit.
(2) Kent R.O., Medway Navigation ledgers, F.L. 1-12
(3) W.T. Jackman, Development of Transportation in Modern Britain, (1962) pp.434-5
(4) P.P. 1836, XLVII, 297.

maintenance.[1]

The construction of company offices, of warehouses, wharves bridges, lock-keepers' cottages and toll houses have all been included as investment since the creation of a new asset is involved. Offices, warehouses, wharves and cranes are all clearly plant necessary for the functioning of the transport undertaking. Toll-collectors'dwellings are not strictly necessary in the same way but have been included because modern national income accounting, possibly anomalously, includes dwelling houses as investment. In some respects toll houses should have been included with figures for dwelling houses and not for transport. But this is not satisfactory as many trusts such as Fulham Bridge used a toll house as company headquarters,[2] and many toll-houses were not intended for homes.[3] Where a canal company became involved in relatively large-scale urban development as with the Aire & Calder at Goole[4] the distinction is clearer. The company built dwelling houses and the nucleus of a town because it wished to develop Goole as an inland port, and it had to provide places for the workers to live. But the houses in Goole were dwelling houses, regardless of motives, in a way toll cottages were not. The development of Goole

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(1) See below, p.132 passim.
(2) Fulham Bridge Minute books, P.R.O. 30/26.
(3) K.C. Macmahon, "Roads and Turnpikes in Eastern Yorkshire", East Yorkshire Local History Society, Pamphlet No.18, 1964, p.69. David Williams, "Rebecca Riots, (Cardiff, 1958). Also R.E. Leader "Our Old Roads", Transactions of the Hunter Archaeological Society, Vol. 2, pp.7)29.
(4) B.T.H.R. York, ACN R.A.C.Y. 2/1/1-35. See also, Baron Duckham, The Yorkshire Ouse, (Newton Abbot ,1967), pp.89-91. Baron Duckham, "Selby and the Aire and Calder Navigation", J.T.H., Vol. VII, 1965. J. Porteous, "Goole", Journal of Industrial Archaeology, Feb. 1969.

is clearly excluded from investment in transport undertakings; but toll cottages have been counted in since the distinction for them is at best very hazy. Railways and tramroads constructed by canal companies have been included as investment; whether they were temporary as on the Wilts. & Berks.[1] at Radstock Hill, or on the Grand Junction Canal[2] at Blisworth, during the construction of a tunnel, or whether they were permanent feeders from collieries as on the Leicester[3] and other canals. Barges used in the course of construction and for dredging or maintenance have been included, but barges used in the carrying trade by a navigation company have been excluded. Carrying by the company was generally prohibited by law in any case but some companies did so apparently undeterred.[4] Pumping stations, reservoirs, lifts and inclined planes have all been included where found, even if later abandoned. Canals and roads which never paid any interest, and those which were abandoned in the course of construction, like the Southampton & Salisbury Canal[5], have been included. Despite later abandonment, or unprofitability when constructed these undertakings

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(1) Wilts. & Berks. S.P.L.
(2) Victor A. Hatley, "The Blisworth Hill Railway, 1800-05", Northants. Antiq.Soc.Papers, 1962-3.
(3) L.M. 3D42. For other canals and tramways, C.Hadfield, Canals of South Wales and the Border, (Newton Abbot, 1960) and B. Baxter, Stone Blacks and Iron Rails, (Newton Abbot, 1966), and D. Ripley, The Peak Forest Tramway, Locomotion Papers, No.38, (Lingfield, Surrey, N.D.)
(4) Hadfield, British Canals, (1st Ed., 1950), pp.64-65), despite Jackman's comments, p.436.
(5) Southampton & Salisbury S.C.A., DPM/6. See also, Edwin Welch, "The Bankrupt Canal", Southampton Corporation Publication, 1966.

represented a real burden on the economy and it has been the purpose of this investigation to attempt a more accurate estimate than any hitherto of the extent of that burden.(1)

Payments for breaking ice on canals(2) in winter, for watering roads in summer to keep the dust down, for scavenging and cleaning streets(3) and for clearing snow(4) have all been deducted when found, as these are current expenditure. Wages and gratuities to lock-keepers and turnpike gate keepers have been deducted where these are quoted. Where they are not, the tolls were farmed out(5) and the problem of the current expenses of their administration arises in a different form. Toll-farmers took over the management of the

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(1) Scottish Military roads come under this category, see below Chap. 5.
(2) Birmingham Canal Company. B.T.H.R. (London) BCN4/375. In a severe winter this item could be heavy. In 1815 the Birm. Canal Co. spent over £600.
(3) New Cross Road, K.R.O., F1/2,5. Kilburn Road, G.L.R.O. LA/HW/T, p.1-12.
(4) As today snow clearing could sometimes be very expensive . The Wooler Roads in Northumberland spent £135 of a total of £952 in 1822-23 on this item, P.P. 1824, XX, Northumberland.
(5) A full description of toll farming will be found in W. Albert, op. cit., pp.136-140. Both Albert generally and F. Maud in his particular study The Hockerill Highway do not consider the toll farmers as corrupt as S. & B. Webb have implied in their Story of the King's Highway, (1913). Even in the Rebecca Riots, op. cit., Williams found the toll farmers increased revenue through efficient administration rather than extortion. op. cit. p.166. In a detailed study of the Leeds Turnpikes R.G. Wilson, "Transport Dues as Indices of Economic Growth", E.H.R., 2nd. series, Vol. XIX, 1966, p.119, does not find the toll farmers in his area particularly corrupt. It would also appear from T.F. Ordish, "History of the Metropolitan Roads", P.P. 1911, XXXIV, p.170, that the toll farmers of the Metropolis turnpike roads were far from corrupt, but simply worried over the impact of the railways. G.H. Tupling "Lancashire Turnpikes", Proc. Manch. Phil. & Lit. Soc. 1952-3, found toll farmers more efficient than trustees.

tolls but usually left the repair and improvements to the trustees. In this case there are still the expenses of repair and improvement to take into account but without the current expenses of toll administration to deduct. Sometimes turnpike trusts let out the repair of their roads or part of their roads to contract. Canal companies usually tried to put their construction work out to contract[1] and road trusts frequently did so for large-scale improvements, lowering hills[2] and so forth. The contractors took a profit for their work which is not strictly investment, but the question turns on whether these costs were necessary. Could the canal company, or road trust have handled the construction without equivalent expense?[3] The preference for leaving the work to specialist contractors is surely significant here. The Webbs are scathing in their comment on the farming out of repairs[4] but Dr. Albert who has examined the question more recently in greater depth is more favourable to the practice.[5] He found that it was very unusual for the whole road to be let out to contractors for repair[6] and that usually a trust would contract

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(1) For a detailed account of contractors relationship with company, see, David Tew, The Oakham Canal, (Leicester, 1968). A large-scale contractor like Pinkerton appears in A. Temple Patterson, "The Making of the Leicestershire Canals", Leics. Arch. Soc., 1951, and in P.A.L. Vine, London's Lost Route to Basingstoke, Newton Abbot, 1968.

(2) Thus the formal parliamentary accounts had an entry for "work executed by contract", see below, p.34.

(3) For a related discussion on the efficiency of contracting for buildings, see M.H. Port, "The Office of Works and Building Contracts in early 19th century England", E.H.R., 2nd series, Vol. XX.

(4) Webbs' King's Highway, op. cit., p.132.

(5) Albert, op. cit., pp.264-269.

(6) Though this did happen: Clitheroe-Whalby Road, Lancs., Chichester-Cosham Rd., Sussex, Shrewsbury-Minsterly Rd., Salop, P.P. XX, 1824.

certain sections while keeping others under its own surveyor.[1] It could then compare costs and efficiency directly, but these are very difficult to evaluate as a low contract price might result in an appalling road. For example, in 1815 the Essex and Hertfordshire turnpike reduced expenditure from £3,445 in 1815-16 to £2,578 the following year[2] by letting the road out to contract. But there is no means of telling whether the standard of maintenance declined although the Trustees seemed satisfied. The part of the Ulverstone - Carnforth Road which was contracted in 1822-23[3] at four guineas per mile may well have had a very poor surface since Macadam considered 13 or 14 times this sum necessary to maintain a road which was already in good order.[4]

As long as contracting was competitive contractors can be expected to have driven down prices to the lowest level they thought possible.[5] There seems to be no evidence for "rings" or "knock-outs" in repair contracting[6] such as the Webbs suspected in toll farming.[7] Nor did repair contractors appear to flourish on the same scale as Levy the toll farmer, who was virtually a millionaire. Many of them

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(1) Wigan - Preston Road, Barton Bridge - Moses Gate Road, Lancs. P.P. 1824, XX.

(2) Herts. R.O., Hockerill Trust account books.

1813-14	£3,241	1816-17	£2,578
1814-15	£3,310	1817-18	£2,428
1815-16	£3,445	1818-19	£2,556

Also see, F. Maud, Hockerill Highway, op. cit. pp. 37-38, 43.

(3) P.P. 1824, XX, Westmoreland

(4) Macadam, Remarks on Road Making, 3rd Ed. (1820), p. 41.

(5) Trusts were supposed to specify contract rates in the 1820 parliamentary returns, and although many did not do so, enough did to show tremendous variation generally due to geographical factors.

(6) Albert, op. cit. pp. 265-269.

(7) Webbs, op. cit. p. 139.

seem to have been quite hard-pressed at times[1] as trustees appear to have had a shrewd idea of what it should cost to keep a road in good repair.[2] Most trusts were in a position to have experience of administering repairs for themselves, in the same way that they had some idea of what their toll gates should produce through having controlled these directly.

The relative efficiency of specialist contractors by the early years of the 19th century is reinforced by the experience of canal companies which did try to organize construction work themselves. The profit of the construction contractor can therefore legitimately be regarded as payment for management expertise, making a genuine contribution to investment.

The salaries of clerks, treasurers, and surveyors employed directly by the road trust or canal company present a different problem. These are partly management expenses for new works and partly current expenses for running the concern and collecting tolls. Therefore, a proportion of clerks and treasurers' salaries as current expense on routine should have been deducted while leaving a proportion as spent on supervising improvements,[3] but the difficulties were out of all relation to the sums involved. Road surveyors' salaries have been included because they were frequently concerned with the direct

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(1) Albert, op.cit.
(2) Maud, op. cit. Albert, op.cit.
(3) See below, p.36.

improvement of the road as well as its maintenance.(1) It was felt that it would be inconsistent and inaccurate to omit the expenses of little known surveyors while including those of famous engineers such as Telford and Macadam. The expenses of engineers responsible for canals, roads or bridges have been included in precisely the same manner as they are at present.(2)

Law charges and solicitors' fees form an important and difficult problem.(3) Their importance lies in the fact that they are the third highest charge after repairs and interest payments and the decision to include or exclude them makes a considerable difference to the estimates. In 1770 it is estimated that law charges cost £4,044 of a total net expenditure of £153,700; in 1800 they cost £12,294 of a total net expenditure of £467,196; and in 1834 they cost £26,565 of a total of £1,128,380.(4) Present National income accounting accepts the fees of designers and architects, and solicitors' charges for arranging the conveyance of land, drawing up contracts and so forth. All of these are counted as investment because definite services are rendered.(5) However, legal fees in the 18th and early

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(1) P.P., Holyhead Road Report, 1824, IX, 293. Telford praised the initiative and effort of some of the surveyors prior to his concern with the road.
(2) S.S.R.C. Conference proceedings.
(3) Fishlow counts them as investment but does not give his reasons, op. cit., p.352 Feinstein also includes them but does not give any reason either, op. cit., p.68, as they might well be regarded as a transfer payment, since no physical asset is created.
(4) See below, Tables XVII., XVIII.
(5) Feinstein, op. cit., pp.67-68. Also S.S.R.C. Conference Proceedings

19th century are often inseparable from parliamentary expenses.[1]

Each new canal, river navigation, turnpike trust, bridge trust, or body of improvement commissioners was set up by an individual private act of parliament. The method and the course of this legislation has been studied in detail by the Webbs, Jackman, Willan, Hadfield and Albert.[2] The controversial question of the waste, corruption and inefficiency of the local private act system alleged by some of these authorities is not the immediate concern of this study. The importance of the problem is that the promoters of canals or turnpikes found it necessary to obtain an act of parliament.[3]

There is no real equivalent to the eighteenth and nineteenth century costs of a private act in modern national income accounting procedure. At present fees of company registration and similar expenses are considered as a type of tax and are not included as investment..[4] This seems illogical in many respects since little could be done if fees were not paid, although they generally constitute a very small part of a company's operations and are not recurrent. Moreover, eighteenth and nineteenth century parliamentary fees were not paid to the government

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(1) Fishlow however categorically dismisses Parliamentary expenses but with no reasons given, op. cit., p.357.

(2) S. and B. Webb, Statutory Bodies for Special Purposes, (1922). Jackman, op. cit. T. S. Willan, River Navigation in England, 1600-1750, (2nd. ed. 1964). C. Hadfield, Canals of the East Midlands, (Newton Abbot, 1966). C. Hadfield, Canals of the West Midlands, (Newton Abbot, 1967). Albert, op. cit.

(3) For a detailed discussion of the powers of Acts, see Willan, p.31, passim.

(4) S.S.R.C. Conference procedings.

as a transfer of interest or for welfare payments, which might thus classify as transfer payments. They were paid for setting a legal framework in a manner similar to the service of conveyancing,[1] and were necessary in the same way in the contemporary state of society for the adjustment of property interests. For example , the threat of a navigation act for a river generally brought into the open the opposition of interested riparian owners and millers.[2] The promotion of turnpike trusts frequently encountered great opposition from carriers who resented the visible increase in expense.[3] Wherever the interests of other property owners were affected by the instigation of a new transport undertaking special powers of organization and coercion had to be obtained with recognized arbitration and settlement procedures. The promoters and opponents of a scheme for improving communications would muster support in pamphlet wars[4] and petitions, but the final 'adjustment of interest' would take place in parliament. Efforts were often made to do without these extra powers to save trouble and

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(1) Feinstein, op. cit., p.11.
(2) For full discussion of typical opposing interests to a river navigation, see Willan, op cit., p.31, passim. Also F.S. Thacker, The Thames Highway, (Newton Abbot, 2nd. ed., 1968), Vol. I.
(3) Albert, op. cit., pp.41-45.
(4) Possibly the best collection of such advance publicity material is to be found in the Goldsmiths Library of London University, although Birmingham University Library has a considerable quantity on Midland canals. An excellent local collection of promoters material is to be found among the 'Phillips' collection at Stamford Town Hall.

expense. Early enclosures tended to be by agreement wherever possible,[1] some parishes were indicted time and again to repair their roads before a trust was set up,[2] and several private canals were constructed without acts to supply factories or to take coal from mines.[3]

However, definite services were rendered and powers conferred by an act without which little could be done on any scale. Subject to compensation am act gave powers of compulsory purchase of land,[4] so that for example, a canal could be constructed on the line which was least hilly and generally most suitable. A turnpike act would generally have included powers to acquire land for road widening and possibly for pulling down houses.[5] An act conferred powers of incorporation for a canal or river navigation company with the right to sue and be sued.[6] For a turnpike trust it gave powers

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(1) For a study in depth on an early enclosure, see Plague and Enclosure, Coventry and North Warwickshire History Phamphlets Birmingham University No. 2., and also W.E. Tate, Enclosure and the English Village Community, (1967).

(2) Chapter IV of the Webbs' King's Highway, op. cit., is headed 'Repair by Presentment and Indictment'. See also, MacMahon, op. cit., pp.12-13.

(3) Hadfield, Canals of the East Midlands, op. cit., Newdigate Canals, pp.26-29, Woodeaves Canal, p.72, Adelphi Canal, p.74, Grosvenor Canal, p.139.

(4) For a detailed discussion of nineteenth century compulsory purchase procedures with regard to railways, see Appendix III of John R. Kellett, The Impact of Railways on Victorian Cities (1969). The Duke of Bridgewater was persuaded of the utility of an act for his canal because for some time work was delayed by one recalcitrant landowner. See, Edith Mally, The Financial Administration of the Bridgewater Estate, M.A., Manchester, 1929, and Hugh Malet, The Canal Duke, (Newton Abbot, 1961).

(5) For example, the Manchester-Ashton Road spent £940 on buildings in 1822-3 and the Bolton-Blackburn Road £825 in the same year. P.P. 1824, XX Lancashire.

(6) Willan, op. cit., p.48. See also, B.C. Hunt, The Development of the Business Corporation in England, 1800-1867, (1936)

of virtual immunity against any legal proceedings.[1] It included limited liability and other protection to the lenders of money, necessary when the quantities of money required for large undertakings were generally beyond the resources of partnerships, banks, or private finance. Parliament was constantly showing concern for the rights of turnpike mortgage holders,[2] and eventually made payments of interest the first legal charge on a trust.[3] All of these powers could be gained in no other way than by acts of parliament during the period 1750-1850.[4]

Moreover, an act was valuable above all because it conferred monopoly powers over a particular route between two places.[5] Abuse of monopoly powers was regulated by the maximum toll schedules incorporated in the individual private act for each transport undertaking in the period under review. To some extent the competition of various routes helped to contain monopoly powers, although, as with the railways,[6] this check was frequently nullified by agreement. Contemporary opinion was aware of such dangers but had expected to contain them further by keeping canals open for general use on payment of tolls, with competition among carriers to protect the public. This policy was reinforced by prohibiting canal companies from acting as carriers themselves. However,

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(1) Webbs', King's Highway, op. cit., p.142.
(2) Albert, op. cit., p.101.
(3) Ibid.
(4) The system of granting royal charters had become moribund to all intents and purposes by 1750, see, B.C. Hunt, op. cit., pp.4-5
(5) Jackman, op. cit., pp.491-2.
(6) H. Parris, Government and the Railways in the Nineteenth Century, (1965), pp.8-9, 22-23.

evidence brought by railway promoters[1] of the extortion and incompetence of some canal companies can hardly be considered disinterested. The abuse of their monopoly position by some canals is apparently implied by their often drastic reductions of toll charges on the completion of competing railways, although price wars were undertaken uneconomically in the short term. Furthermore, the relatively high charges on some canals in the deflationary years after 1815 were sometimes a reflection of the high construction costs of the inflationary Napoleonic war years.[2]

Nevertheless, the dispute over canal and turnpike abuses clearly revealed that canal and turnpike acts did confer valuable services to their promoters. Had they not done so it is certain that the promoters of these undertakings would not have troubled with them since they were expensive and difficult to obtain. Costs often seemed high in relation to the benefits derived, and this is particularly so of the turnpikes renewal acts. In theory a trust took over a section of parish highway, spent money on improving it, and was then entitled to put up gates and levy tolls on users to pay off this money. When the road was in good repair and the money paid off, the gates could be removed and the trust dissolved. In practice this seldom took place[3] but turnpike acts maintained the fiction by being valid for periods of twenty-one years until the general act of 1831.[4] Towards

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(1) Jackman, op. cit., pp.486-494, 512.
(2) The Regent's Canal and the Old Grand Union were among many in this position. Hadfield, Canals of the East Midlands, op. cit., pp.107, 133. See also, A. Temple-Patterson, op. cit., p.33, for a discussion of this problem on the Leicestershire Canals.
(3) See Appendix F, below.
(4) 1st. and 2nd. William IV, c.25.

the end of the twenty-one years a renewal act had to be obtained and this legislation was a drain on the trust's finances. Acts for canals, river navigation and bridges, were usually permanent, but frequently fresh powers were required to extend jurisdiction or to borrow beyond the sums specified in the original act. Any extension of powers needed a new act, but all renewal legislation was in a sense parisitical since it apparently created little in the way of a new asset or service. Yet renewal acts which raised tolls, allowed more money to be borrowed, or enlarged powers of jurisdiction, were in many ways an extension of the original legislation and changed the legal framework beyond the former situation.

It can be concluded therefore, that the private acts of parliament common for all transport undertakings in the period under review did confer definite legal services and benefits in exchange for the costs incurred in obtaining them. In the present study parliamentary fees have thus been considered as investment expenditure.

On the other hand rates and taxes are classified as transfer payments because most of the money raised is simply transferred between individuals or institutions with no new asset created or services rendered. After the Napoleonic Wars half of the government revenue was spent in servicing the enormous national debt.(1) The interest payments on this were clearly transfer payments from one section of the community,

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(1) Mitchell & Deane, Abstract of Historical Statistics, (Cambridge, 1962), pp.401-409.

generally the poor as they paid most of the indirect taxes to the rich, who had lent the money to the government in the first place. In the same period a large part of the local rates were spent in the poor relief, for which payment there was again generally no new asset created. A certain amount of government expenditure in the period 1750-1850 can be classed as investment. Money spent on county bridges[1] grants for the Holyhead Road[2] and the Highland Roads and Bridges[3] comes under this heading. But this expenditure is returned in government reports on these projects and so is included in this study.

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(1) P.P. 1834, XIV, 194-206, see below, chapter 7.
(2) See below, p.162
(3) See below, p.162

CHAPTER 2

EIGHTEENTH CENTURY ACCOUNTING

I. Turnpike Trusts

The definitions and distinctions of investment discussed above must be considered in relation to 18th century accounting procedure. Professor Pollard has analysed this in "Capital Accounting in the Industrial Revolution"[1] where he distinguishes three influences in 18th century accounting procedure; the influence of the stewards of landed estates, the influence of merchants, and the influence of the accounting procedures of the putting out system. He concludes that none of these systems was suitable for the more modern type of large scale undertaking growing up in the latter part of the 18th century. In particular there was little idea of the costs of overheads, of capital, and of depreciation.[2] Profit margins were wide because many undertakings were in positions of quasi-monopoly.[3] But accounting procedure was extremely crude and unsophisticated by modern standards.

The accounts of turnpike trusts examined in the course of this study[4] support almost all of Professor Pollard's contentions.

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(1) S. Pollard, "Capital Accounting in the Industrial Revolution", Yorkshire Bulletin of Economic and Social Research, XV, 1963. "Fixed Capital in the Industrial Revolution in Britain, J.E.H. XXIV, 1964. The Genesis of Modern Management, (Peng. Ed. 1968), p.245
(2) Pollard, 'Modern Management,' op. cit., p.271.
(3) Ibid, p.285
(4) See below, App.C, and Table XX.

During most of the 18th century there was no attempt by turnpike trusts to distinguish between new work and maintenance, and there was therefore no attempt to separate capital and current costs. The usual method of accounts for turnpikes is that ascribed by Professor Pollard to estate accounting.(1) Possibly this was due to a certain preponderance of country gentlemen among trustees, and bailiff-trained people acting as clerks - a preponderance further increased by the tightening of the property qualification in 1752 and 1822.(2) Expenditure was entered day by day as it was incurred, with receipts opposite or in another volume. All types of entries, payments for land, wages, stone, interest and so forth were entered indiscriminately as they occurred.(3) This makes the task of separating and deducting entries for interest, rent, taxes and other transfer payments very difficult, although regular charges tend to be easier to separate as they are often bunched together for payment once a year.(4) Charges for materials such as gravel or stone, and payments for labour such as carting or digging gravel, are all entered with no further particulars as to the purpose, and it is impossible to distinguish entries for routine repair from those for new construction.

A possible guide to distinguish new work should in theory be payments for land which are generally large and easily separated.

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(1) Pollard, op. cit., 'Modern Management', p.246.
(2) 26, George II, c.30. 3, George IV, c.126.
(3) Manchester - Wilmslow Rd., M.C.A., MSF 350.042 M103. Helston T.T. D.D.P.H./659, Co.R.O.
(4) Hitchen - Bedford, X46/12 Beds.R.O. Stockbridge - Winchester, 4m. 30/5., Hants.R.O. Leek - Buxton, D.706, Staffs.R.O.

However, the land was often bought well in advance of construction through efficient long-term planning.[1] In other cases land was acquired, but owing to depleted funds a company might find itself unable to continue with construction works for many months or even years.[2] Turnpikes sometimes rented the land needed for toll houses and canal companies rented land on occasion for wharves instead of buying.[3] Many types of improvement such as lowering hills on roads or widening tunnels on canals created a new asset but needed no extra land.

In the 18th century turnpike cash-books, each item of expenditure or receipt usually had a separate number and a voucher which had to be signed by all parties concerned. These vouchers could then be checked against individual entries, since the whole object of the estate-steward accounting system was the prevention and detection of fraud.[4] Frequency of balancing and complexity of accounting generally have been found in this study to depend almost entirely on the size of the transport undertaking. A small turnpike would have the running daily cash-book and little more, apart from minute books.[5] A larger road had a second series of ledgers giving entries for each year detailed under headings such as interest, legal fees, land, incidentals and so forth.[6] Sometimes each individual

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(1) A. Temple Patterson, op. cit.
(2) Ibid.
(3) See, Table I below, line 4.
(4) Pollard, "Capital Accounting in the Industrial Revolution", op.cit.
(5) Wellingborough - Northampton, D1023 N.R.O., Winchester - Southampton 4m. 30/14-17, Hants. R.O.
(6) Kilburn Road, G.L.R.O., Mddx., Marylebone Road, W.P.L.

entry is brought over from the Cash Book with the voucher number, and there are pages and pages for each heading.(1) The bigger turnpikes tend also to have a register of mortgage holders,(2) whereas the smaller have lists and entries in minute books. The survival rate of mortgage registers is apparently very poor, but they are of little value in calculating interest because of arrears. Entries for interest payments in a mortgage register might well be ticked off regularly year by year. But reference to the Cash Book would show that payments were nevertheless ten years or more behindhand.(3) In the majority of cases it has therefore been necessary to extract the figures for this study from detailed Cash Books or Ledgers. A further complication was the administrative practice of dividing many of the longer roads into districts with separate treasurers and account books.(4) Often the records of only one district have survived and these may only cover a half or a third of the road.

A very few of the biggest roads in the 18th century took their ledger series one stage further and made up annual, quarterly, or half-yearly statements of income and expenditure.(5) Some of these are simply brief distinctions of salaries, interest, repairs,(6) but others are set out more fully.(7) Most turnpike trust minute books

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(1) Stratford - Long Compton Trust, Wa.R.O.
(2) Reigate Trust, S.R.O., 68/2/1, 2, 3.
(3) Lutterworth - Hinckley Rd; Moira - Gresley Rd.; Melton Mowbray - Leicester Rd., L.R.O.
(4) Leadenham Hill - Southwold Rd., Notts. R.O., DD.T27/1-2, TT3/2-3, DD.M.111/55-57. Other large road trusts divided into districts were at Worcester and the Lincoln Heath - Peterborough Rd.
(5) Islington Trust Account Books, I.P.L., Biggleswade - Alconbury Hill, X40/2-8, Beds. R.O.
(6) Bromyard - Hereford Rd., H.C.L.
(7) New Cross Trust, TA F1/2-5, K.R.O.

were not found to contain annual statements of income and expenditure. Many trusts did not even balance their account books in the course of the year, nor did the treasurer in reporting to the trustees, give a statement of the year's income and expenditure. Had they done so the extraction of figures for the purposes of this study would have been far easier. In practice it was found that even the big trusts which made up statements from ledgers rarely transferred these to the minute book.(1) Invariably minute books simply record that the treasurer presented his accounts; they were examined, and the balance was found for or against the trust.(2) This total absence of full statements in minute books remained the practice until the Act of 1822(3) compelled all trusts to file annual statements with the Clerk of the Peace. Copies of these are found in minute books but prior to this, statements are very exceptional.(4)

Some minute books record a copy of every individual entry in the Cash Book in order to either authorize payment beforehand or to certify afterwards.(5) Nor are minute books of value in discriminating new works from maintenance. They often contain discussions and estimates of the construction of an entirely new stretch of road. Where these estimates can be checked,(6) they are more reliable than those for canals, presumably because the scale of roadworks does not

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(1) Kensington T.T., K.P.L.
(2) Derby R.O.
(3) 3 George IV, c.126.
(4) New Cross Rd., T9 A1/3 F1/11, K.R.O., Knaresboro' - Pateley Bridge, W.R.A.
(5) Bermondsey, Rotherhithe and Deptford Rd., S.A.K.
(6) P.P. Holyhead Road Reports. See below, p.161 for a list of these.

alter the balance of a local economy so radically.[1]

The crudity of the trusts' accounting procedure clearly reflects the primitive state of their management. They usually had an accurate figure for the mortgage debt as this was their primary legal obligation,[2] and the property of others. They usually had to pay fixed rates of interest on their debt,[3] and all income, surplus to interest, could be spent on the roads. Nevertheless, all expenditure is usually mixed in one outgoing account; borrowed money is spent as current revenue whether it is for new work or routine maintenance. Interest and principal payments are made from current revenue and it is only the very largest trust which set up any sort of sinking fund.[4] Payments of principal and balances carried over or added sometimes render turnpike cash books very confusing. However, all balancing and principal payments have been deducted whenever encountered.

Throughout the period accounting procedure was developing. Balances were struck more frequently and payments were listed under headings more often. The requirements of the parliamentary statements of the 1820's gave a great impetus to improvement in accounting methods. All trusts were supposed to distinguish (see over) entries on the statements as follows:

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(1) Pollard, op. cit., p.258
(2) See above.
(3) A.J. Clark, 'Islington Turnpike Trust', M.A. thesis, London, 1958. Albert, op. cit., pp.191-225.
(4) Surrey and Sussex Roads, Surrey R.O. Warminster Rd., Wilts. R.O.

TABLE I. CLASSIFICATION OF TYPICAL 1820's

TURNPIKE EXPENDITURE STATEMENT

Teamwork supervised by surveyor(1)

Day-labour supervised by surveyor(2)

Work executed by contract, with rates specified

Repair, maintenance, or building of houses, gates, or bridges

Rent of land and quarries and damages to land

New works or improvements

Wages of toll-keepers

Salaries of clerks, treasurer, surveyor

Interest payments

Incidentals and legal fees

This constituted the current account, but trusts were also supposed to submit a capital account to show the full position of their debt, with details of the total principal outstanding arrears of interest, and the amount paid off for that year.

In practice it was found that only about half of the trusts examined(3) troubled themselves to return capital accounts, although the proportion increased throughout the 1820's. But the statements

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(1) Teamwork constituted carting with teams of horses.
(2) Day-labour consisted of digging, breaking stones and so forth by day-labourers.
(3) Although more returned capital accounts in parliamentary statements. Perhaps the discrepancy arises with the carelessness of some clerks of the peace.

during the 1820's do not conform to a rigidly set pattern. Provided a trust included most of the items specified above, its statement was accepted for filing by the Clerk of the Peace. The majority of trusts submitted manuscript copies of statements,(1) some had their own statements specially printed, whilst others used a printed form but filled in their own figures. Every trust used the period of a year which suited it best. Therefore some of the 1820's statements run from October to October, some from April to April and so forth, with a few from January to December.(2) This large degree of flexibility was used by most trusts to evade details of the salaries of their individual officers. This may possibly have been because treasurers were considered to be remunerated by the interest they gained while handling a trust's money; the clerks were generally solicitors who were considered amply compensated in their periodic legal fees.(3) But more important, for the purposes of this study, the trusts did not usually trouble to separate new works from improvements. However, some trusts were making the distinction by the 1820's. The Shelton's Lane Road(4) has £5,125 entered in its 1822-3 account for new work; the

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(1) Any Quarter Sessions trust returns will yield examples of some of these, viz, Staffs. R.O., Kent R.O., W.R.Q.

(2) See, discussion of this "flexibility" in House of Lords select committee report, 1833, Vol. 10., B.M. Since all the transport undertakings considered in the present study used various months to commence and terminate teir financial years, the tables have been set out 1750-1, 1751-2, etc., with the figures derived from the various accounts entered in the most suitable year.

(3) As above, p.20, and also see App. F.

(4) P.P., 1824, XX, Huntingdonshire.

Ford-Redscar Rd.[1] has £98 for this year, the Heronsyke Eamont Bridge[2] has £1,105. But more typical is the entry for the same year of the Chapel-on-Heath - Bourton-on-Hill Road,[3] with entries simply for 'labour and work', or the Launceston Road[4] for the same year with entries for 'smith's work and carpenters work', or the Tewkesbury Road[5] with £3,097 for 'labour and materials'. Even where new work is separated , other entries such as teamwork are suspiciously larger than normal, and the trust clearly had difficulty in distinguishing new construction.

In 1833 the form of the turnpike revenue and expenditure statements was standardized,[6] and the year for all trust statements was henceforward January to December. All of these returns had to be submitted to parliament and from 1833 full national totals have been derived from parliamentary papers.[7] Among other detailed entries these give in full the salaries of the various trust officers and it would have been possible therefore to deduct a proportion of the salaries of clerks and treasurers for an element of current expense. But since any proportion would be arbitrary and the sums involved

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(1) P.P., 1824, XX Northumberland.
(2) P.P., 1824, XX Westmoreland.
(3) P.P., 1824, XX Gloucestershire.
(4) P.P., 1824, XX Cornwall.
(5) P.P., 1824, XX Gloucestershire.
(6) 3rd. and 5th. William IV, c.78.
(7) See below, Chapter 3.

were small in relation to total outlay, the effect on the estimates would be marginal. However, flexible adjustments to fit varying definitions of investment is possible for the post-1833 figures, which have been set out in full, and also by percentage extrapolation for the pre-1833 estimates.(1)

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(1) See below, p. 132.

II Navigation Companies

Canal and river navigation accounting tends to be far more sophisticated than turnpike trust procedure, even from the mid-eighteenth century. As with the turnpikes themselves, it is possible that complexity of accounting was a function of size. Despite attempts to improve accounting techniques, river navigation and canal companies experienced the greatest difficulty in distinguishing expenditure on new work from expenditure on maintenance.(1) Most canals attempted to set aside outlays on new work as a separate item, but as with turnpikes, whenever this was done other entries show doubtful increases. While a canal was under construction, accounting was relatively straightforward, but the difficulties arise afterwards in such operations as widening locks or tunnels. A certain quantity of materials were needed every year for repairs, some of which was frequently used in new work or improvements without being transferred in the accounts. As late as 1838-39, on the Wilts. and Berks.(2) Canal, there was an entry of £2,881 for repairs and £827 for new works; in 1839-40 new work and the purchase of materials for future improvements stood at £1,445, but repairs were £3,295 for that year. For 1840-41, £936 was spent on new works with 'reserve for works on hand' of £2,200, but £4,079 was spent on repairs; 1841-42 has no entry for new works,

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(1) Pollard, "Capital Accounting in the Industrial Revolution," op. cit.
(2) B.R.O., D/EFB1.

and repairs came to £1,533. The improvement aspect of repairs is thus clearly very difficult to separate. In 1830-31 a printed statement for the Portsmouth and Arundel[1] had entries of £876 'to finish work on this line' and £229 'to finish work on that line' which could be taken as new work; but there are also entries of £142 'for sundry works on the Portsea line', and £142 'for sundry works on the Sussex line'. The report with this statement mentioned simply that 'Repairs on the Sussex line of canal have proved substantial'. Even more typical are the entries on a printed statement for the Driffield old Navigation[2] for 1821-22; £54 for labour, £65 for carpenter work, £29 for ironwork, £13 for bricklayers and masons work, £126 for dredging. The last item is apparently distinguished today as maintenance if carried out to a previously accepted depth, but counts as improvements beyond this depth. Such subtle distinctions were not normally observed by 18th century navigation companies. It is probable that the Driffield figures are mostly for routine repairs. However, when the figures in accounts of this nature increased suddenly, the only suggestion that new work is in progress follows when expenditure returned to a routine level.[3] Nor is the distinction between new works and maintenance made any clearer by surviving navigation ledgers and cash books

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(1) Sussex Arch. Soc., S.M.30.
(2) E.R.R.O., DDX/40/19.
(3) See p. 9, above.

as they have all the drawbacks previously noted for turnpikes.[1] The crux of the matter is that canal companies were themselves very uncertain of the distinction between capital and operating costs.[2] Some of the bigger concerns like the Kennet and Avon,[3] Oxford,[4] and Birmingham[5] Canals did establish reserve or sinking funds, and even on occasions wrote down capital in a primitive form of depreciation.[6] But these improvements in accounting techniques were only vaguely understood and hazily applied. When a canal was constructed, expenditure was high, but thereafter relapsed to a level of routine maintenance. A high level of expenditure usually indicated improvements or new construction work, whereas a low level showed routine maintenance.

For example, the Oxford Canal had full annual statements from 1772,[7] with some attempt to distinguish capital from routine expenditure. The following sums were detailed in a revenue and expenditure sheet as having been spent on new construction up to July, 1772:

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(1) See above, pp.30-32.
(2) Pollard, Modern Management, op. cit. p.279.
(3) B.T.H.R., London, RAC 2/9A, 9B.
(4) B.T.H.R., London, RAC 2/28,29
(5) B.T.H.R., London, BCN 4/14A, 14B, 364-366, 375
(6) Oxford Canal Accounts, B.T.H.R., RAC2/28, 29.
(7) B.L. Dep. a.16.

TABLE II. Detail from Oxford Canal Expenditure Statement

	£
Coals	4,319
Sundries	969
Travelling	166
Horses	132
Horse Keeping	338
Boating	1,315
Carriages	2,757
Blacksmith	224
Ironmonger	481
Wheelbarrows	408
Planks	1,038
Post and rails	833
Quicks	306
Carpentry	1,317
Timber	3,861
Lime	1,479
Bricks	4,594
Bridges	1,264
Stone	1,114
Day-labour	6,014
Puddling	1,530
	48,766
Land	9,273[1]

Each subsequent annual statement continued to set out the items in full simply adding the expenditure for the current year.[2] The revenue and expenditure sheet itself became a vast running account. The gross total spent from 1769 to 1773 was £75,962; from 1769 to 1775, £117,121; to 1776, £134,742; to 1777, £165,606. For 1778-9 when the first period of construction was over, the statement is now missing and that for 1779-80 was a routine twice yearly account with a total

(1) B.L., Dep. a.16.
(2) B.L., Dep. a.16.

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of £738 + £399 on repairs, £488 + £172 on salaries and £81 on incidentals.[1] This format remained until 1786 when the procedure was elaborated, and in 1791 it was changed again, with a strong comment that the previous accounting system was incorrect.[2]

The Oxford Canal Company was not exceptional in having statements of revenue and expenditure in the 18th century. The Weaver, Trent, Don, Tone, Thames, Nene, and Aire & Calder river navigations; The Birmingham, Bridgewater, Chesterfield, Cromford, Exeter, Leeds & Liverpool, Leicester, and Kennet & Avon[3] Canals all had some form of annual statement of income and expenditure in the 18th century. As in the case of the turnpikes, it was not the practice to copy the annual statement into the minute books at this time.[4] This is particularly disappointing when the minute books of large canal companies have survived with no account books.[5] Some minute books

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(1) B.L., Dep. a.16.
(2) B.T.H.R. (London) RAC 2/28, 29.
(3) B.T.H.R. (London) RAC 2/48. C.R.O. B.T.H.R. (London) RAC 2/47. B.T.H.R. (London) DUN 4/2. Sa.R.O. G.L. W.N.R.A. B.T.H.R. (York) AC.N.4/36. B.T.H.R. (London) BCN 4/364-366. N.R.O. C.P.L. B.T.H.R. (London) RAC 2/5. E.C.A. B.T.H.R. (London) RAC 2/12. L.M. B.T.H.R. (London) RAC 2/9a, 9b.
(4) The practice became more frequent for canals as for turnpikes as the 19th century advanced. The Birmingham & Liverpool Junction minutes from 1826 contained full statements. B.T.H.R. (London) B.L.C. 1/1-4. None of the canal minute books in the list of primary sources below yielded annual statements except in the case of the Birmingham and Liverpool Canal. The others have been included to show that a reasonable cross section has been taken and not because figures were derived from them. Apart from these canal minute books under B.T.H.R. the list of primary sources includes material which did yield figures, and not the immense number of turnpike minute books which did not.
(5) Worcester & Birmingham Canal. B.T.H.R. (London), WOBC 1/1 -13

record simply that a balance was struck[1] while others itemise every payment to be made.[2] For several of the large canals it was thought worthwhile to extract the authorized payments from minute books.[3] But in practice this proved most unsatisfactory since the larger concerns frequently had meetings several times a week. The resulting multitude of petty payments,[4] although fully detailed in the minute books, reached totals so large as to be unconvincing, possibly because of time lags. The attempt to work from minute books was consequently abandoned.

All of the undertakings listed above had cash books and series of ledgers with entries under headings, from which the statements were drawn. It was found that with many other waterways, such as the Grand Junction,[5] and Wilts. & Berks.[6] Canals, ledgers had survived but without any statements of revenue and expenditure. However, for both of these canals, printed statements have been found elsewhere,[7] and it can be deduced that manuscript, revenue and expenditure sheets were drawn up from the ledgers but have since been destroyed. A similar conclusion is reasonable in the case of canals such as the Dearne & Dove, Derby, Aberdeen, Portsmouth & Arundel,[8] and so forth

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(1) Driffield Nav., E.R.R.O., DDX/40/19.
(2) Worc. & Birm. Canal, B.T.H.R. (London), WOBC 1/1-13.
(3) Grand Junction Canal, B.T.H.R. (London), GJC 1/1-11.
(4) See list of primary sources below.
(5) B.T.H.R. (London), GJC 23/1-7, 10, 15.
(6) S.P.L.
(7) N.R.O., B.R.O.
(8) S.C.L., Elm 405. Notts. U.L., Dr. E64. A.C.A. S.A.S., SM30

where the only surviving records consist of printed statements. Furthermore, several of the canals in the preceding list are relatively small concerns and the practice of making annual statements was clearly widespread.

The provision of revenue and expenditure sheets by canals and river navigation is partly accounted for by the requirements of their Acts. These generally specify that the company's books must be open to shareholders at the Annual General Meeting.(1) Sometimes Acts also stipulated that statements of income and expenditure must be drawn up for presentation. In any case canal companies had considerable interest in showing that they were efficiently run. They were frequently very short of money due to continual underestimates by their engineers,(2) and the presentation of accounts helped to give confidence for further borrowing by the company. To this end printed statements were often sent to shareholders with notes of dividends due, and this practice which started in the 1790's, developed much further in the 19th century.(3) Shareholders of canal companies had all the powers conferred on them as in modern company law to replace directors individually, or a whole board if they felt justified. But although this was theoretically the position, as with modern capitalism, it

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(1) Hadfield, British Canals, op. cit., p.50.
(2) For discussion, Pollard, Modern Management, op. cit., p.258. For examples, Hadfield, Canals of the East Midlands, op. cit., Canals of the West Midlands, op. cit.
(3) Leicester & Northants. Union, N.R.O. Shropshire Union, B.M. Map Room, 18c., 1-6. Stroudwater Navigation, G.R.O. Monmouth R.O., D/D c 978-985.

very rarely happened that shareholders asserted their rights to this extent. Nevertheless the Board of a canal company was responsible to the shareholders who did on occasion make their rights felt.(1)

This situation is interesting in comparison with the position of the turnpike trustees who were answerable in this way to no one except parliament; they did not have to draw up accounts until the 1820 Act required them to and they could borrow money on the mortgage of the toll without limit. In theory the mortgagees had powers of foreclosure which amounted to taking over collection of the tolls, but in practice this was seldom resorted to and their other powers were negligible. Canal companies were normally operating for profit(2) not simply paying a fixed rate of interest like turnpikes,(3) and their shareholders wanted to know the cause if dividends declined. Some companies, therefore, developed the habit of sending printed reports of their affairs with statements and notices of dividends.(4) These are occasionally found among the papers of a shareholder who otherwise had little connection with the company.(5)

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(1) For a detailed study of company administration, see C. Hadfield, "The Grand Junction Canal Company", J.T.H., Vol. IV. Other specialist studies such as Kenneth Clew, Kennet and Avon Canal, (Newton Abbot, 1968), or David Tew's Oakham Canal, op. cit., also convey excellent impressions of the average company administration. Other brief studies are H. Pollins, "The Swansea Canal", J.T.H., Vol. I, and H. Household, "The Thames and Severn Canal", J.T.H., Vol. VII.

(2) Though some did limit dividends because the promoters were primarily interested in transporting their goods to market, e.g. the Montgomeryshire Canal.

(3) Although it is interesting to note that several trusts in London such as the Highgate Archway and Kentish Town - Holloway were set up as companies. T.F. Ordish, "History of Metropolitan Roads", P.P.1911, XXXIV, p.170.

(4) Hereford & Glos. H.C.L. Somerset coal. So.R.O. Tavistock D.R.O. L.1258 m/12. Lancaster, B.T.H.R. (London), R.A.C.2/11

(5) Notts. Canal papers in the Edge Collection, Notts. R.O.

It is fortunate that more material in terms of total mileage[1] has survived for waterways than for roads, since there are no parliamentary national statistics of income and expenditure of inland navigations. This remarkable dearth of parliamentary material for canals and rivers compared with the enormous amount of legislative activity concerning turnpikes[2] is perhaps due to a number of factors. Possibly the ruling elite represented in parliament were more acutely conscious of the shortcomings of turnpikes since they travelled on them extensively, whereas passenger traffic on canals was generally of relatively small proportions.[3] Turnpikes were not profit-making concerns, but were more of a 'public utility' than canals which were essentially run as profit oriented companies.[4] Perhaps parliament, therefore, felt more justified in interfering with turnpikes. It is also possible that canals were generally more efficiently run and that the majority of users were satisfied with them.[5]

Whatever the cause, there is an almost total absence of

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(1) See below, App. E.
(2) Fifteen general statutes were passed concerning turpikes between 1773 and 1820.
(3) Hadfield, The Canal Age, (Newton Abbot, 1968), Ch.7, conveys a good impression of the limited passenger carrying in England.
(4) Although the river navigations of the 17th and early 18th century were often run by Commissions occupying a similar position to turnpike trustees. See, Willan, op. cit., and Willan, "The Navigation of the River Weaver in the 18th Century", Chetham Soc., 3rd. ser. Vol. III. Furthermore, many of the bodies of Commissioners continued into the 19th century and some canal companies had maximum dividend provisions written into their Acts. But as with the railway companies, ways were found of evading these provisions and the commercial spirit in the form of profit maximisation tended to become dominant in all waterways.
(5) See above, p.24-25.

parliamentary material concerning waterways prior to 1850, and estimates have therefore been constructed entirely from original annual statements, ledgers, journals and cash-books. Payments for land, damages to land, rent, taxes, interest, and dividends, principal payments and balances have all been deducted as for turnpikes.(1) Payments of compensation to other companies for loss of trade,(2) for rights to water, and for pumping water to higher levels, have all been excluded. The only difference in treatment from turnpikes is in the wages of toll collectors on canals and rivers. These men were frequently required to assist in general labouring jobs, repair or improvement of locks, dredging and so forth. It was decided that it would be more accurate to include their wages as investment.(3) This decision was also influenced by difficulties of separation as canal companies tended to include the wages of all employees in one entry as salaries.(4) The remuneration of managers and treasurers should have been divided,(5) since part of their duties were routine. However, difficulties of separation were out of all proportion to the accuracy gained because the difference made to the average canal expenditure was, if anything, smaller than

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(1) See, above, p.10.
(2) A detailed case of compensation payment is to be found in C. Hadfield, "The Grand Junction Canal Company", J.T.H., Vol. 4, p.9.
(3) For examples from specialst studies, P.A.L. Vine, London's Lost Route to the Sea, (Newton Abbot, 1967).
(4) Tone Navigation, So.R.O. DD/MK.
(5) See above, p. 19.

similar adjustments to turnpike estimates.(1)

All parliamentary costs have been included on the grounds stated above,(2) but an additional factor in the case of canals is the cost of surveys.(3) The promoters of turnpikes seldom troubled with a preliminary survey of the road they intended improving, since its route could be specified by listing the places it passed through. Generally there was no question initially of the acquisition of new land for a change of route. Most trusts were pre-occupied at first with the immediate state of the road surface they had inherited from the parish. On the other hand, canal promoters had no pre-existing line of communication to take over. They had to decide which would be the best route for water supply, gradients, convenience of potential users, co-operation of landowners and so forth.(4) This required elaborate taking of levels and surveys, the drawing up of plans and following this, precise lists of the owners of every piece of land affected.(5) All of this was necessary in applying to parliament for an act. But since the surveys would have been required in any case there seems full justification for treating their costs as investment expenditure.(6)

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(1) See, above, p.37.
(2) See, above, p.29, passim.
(3) See below, Ch. 8.
(4) A detailed analysis for the Leicestershire Canal is to be found in A. Temple Patterson, op. cit.
(5) J.R. Kellett, op. cit., App. 2.
(6) S.S.R.C. Conference proceedings.

III. Bridges and Parish Highways

Eighteenth and early 19th century accounting procedure for bridge trusts differed very little from that outlined above for turnpikes, and certainly presented no new problems. Bridge trusts developed the practice of statements of income and expenditure in a similar way to turnpikes, and some bridge trusts filed statements with the Clerks of the Peace in the 1820's.(1) Others sent printed revenue and expenditure sheets to share holders(2) in a manner reminiscent of the canal companies. Bridge-trust accounting procedure was made easier by the nature of the enterprise; massive initial construction outlays would be followed by the absolute minimum of expenditure on repairs and maintenance.(3) Improvement generally meant a completely new bridge, as is still true today.

There is little 18th century parliamentary material on bridge trusts but parliamentary sources have been used extensively for information on the maintenance of bridges by county authorities.(4)

Highway surveyors' accounts were made up as a rule in an individual volume, and the accounts of other parish officers, such as the constable, were each entered in separate ledgers. Occasionally the accounts of several officers are intermingled in one volume,(5)

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(1) B.R.O., Staines Bridge, Windsor Bridge, Q RUT.
(2) H.P.L., Hammersmith Bridge.
(3) See below, Ch. 7.
(4) See below, Ch. 7.
(5) In a few instances the accounts of surveyors and other officers were found among vestry minutes and it was hoped at one point that these minutes would help to yield figures for the majority of parishes whose surveyors' records have disappeared. It was found that most vestry minutes simply record accounts as passed and a new surveyor sworn in.

which can lead to difficulty when examined. However, even in a large parish where two or three[1] overseers of the highways were appointed and presented separate accounts in one journal, total summaries were generally made up. Work is usually on a smaller scale than for turnpikes and entries for each year are confined to a page in most cases.[2] The problem of transfer payments is far simpler because waywardens'[3] accounts are unaffected by payments of dividend, principal sums, rents, taxes. Money is seldom borrowed and interest payments are exceptional.[4] The purchase of land for the improvement of the existing system of parish roads was very infrequent.[5] Services of highway surveyors were compulsorily gratuitous[6] and where a salary was paid it was a nominal one or two guineas. Legal fees constituted a very small part of the expenses for parish roads, being largely confined to the charges attendant on swearing in the surveyor for the following year.[7] Almost all of the money entered in the parish surveyor's account books[8] was spent on gravel,

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(1) Webbs', King's Highway, p.17.
(2) This was so with all but 12 of the 120 Essex Parish Surveyors records examined.
(3) Waywardens, overseers of highways, and surveyors of highways are synonymous.
(4) This is true of rural parishes examined, but may not be for urban parishes, particularly in London, viz. Webbs' Statutory Authorities, p.290.
(5) Although set in France, as a fictional depiction of the wrangling over a new parish road the episode in Zola's, La Terre is unsur passed.
(6) Webbs', King's Highway, op. cit., p.15.
(7) This was so in all accounts examined, see below, Ch.7.
(8) This is the case in the sample examined.

carting, day labour, digging and so forth.

It was found that statute labour was generally commuted into money for accounting purposes in the 17th century,[1] and by 1750 commutation was general. The Act of 1773[2] regularized the rates of commutation and various enterprising printers produced highway surveyors books with the parliamentary tables of commutation set out in full. Statute labour was therefore found in practice to present no problems of accounting procedure or definitions, but it did occasionally involve difficulties in its relationships to turnpike trusts.[3] Legally a parish was still liable to perform statute duty on a road which was turnpiked,[4] although there was a total lack of system in the relations between turnpikes and parishes.[5] Where a turnpike ran through several sparsely populated rural parishes the trustees seemed to have decided that the effort of forcing parishes to compound[6] was not worth the paltry sums involved. If a turnpike passed through more densely populated areas then it was more likely that parishes were made to compound. In the West Riding for example, 'township composition' is a regular addition to turnpike toll revenue.[7]

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(1) See App. D, below.
(2) 13, George III, c.78.
(3) F.H.W. Shepherd, Local Government in Marylebone, 1688-1935: A Study of the Vestry and Turnpike Trust, Ph.D., London, 1953, is a detailed study of such problems.
(4) Webbs', King's Highway, op. cit.
(5) B.M., P.P. H.O.L., 1833, Vol.10 for a full discussion of anomalies.
(6) Few roads in Warwickshire, for example, have entries for parish composition. Rebecca Riots, op. cit., p.180.
(7) For the great confusion over statute duty and its continued illegal imposition after the 1835 Highways Act, see, G.H. Tupling, "Lancashire Turnpikes", op. cit., p.50.

What was entered as revenue for turnpikes was expenditure for parish surveyors, and composition money has been deducted from waywardens' accounts. Occasionally a turnpike paid a parish for repairing stretches of road[1] and in these cases such entries have been subtracted from turnpike expenditure to avoid double counting.

However, if statute labour proved less of a problem than expected, pauper labour presents considerable difficulties. The system of utilizing paupers for the repair of roads has been described in full by the Webbs.[2] They considered that it was popular with contemporaries as a solution of the pauper problem containing an inherent means test. For this study its importance lies in the difficulties of gauging to what extent payment for out-relief was entered in Highway Surveyors' Accounts. After the 1834 Poor Law Act the practice of paying out-relief through the surveyor's rate seems to have become so widespread as to cause considerable difficulty in studying the extent of pauperization.[3] There were parliamentary returns of expenditure on highways for part of this period,[4] but they may well simply reflect the problem.

Of the Parish Surveyor's accounts examined[5] the majority covered the early 19th century when the official poor rate returns

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(1) Swinton Rd., Irlams o' The Heights Rd., Agecroft Rd., Lancs. were all entirely repaired by the parishes.
(2) Webbs', King's Highway, op. cit., p.198.
(3) Ibid, p.199. For example, in 1831 £264,820 was paid out of poor rates for work on roads, J. Marshall, Digest of All Accounts, 1833. See also, J. D. Marshall, The Old Poor Law, 1795-1834, (Papermac, 1968)
(4) P.P. 1818, XVI.
(5) See below, App. D.

were steadily increasing.[1] It appears from the books investigated that labour of some sort was demanded in return for payment. All charges have entries against them, some more cryptic than others, such as 'digging', 'gravel', 'carting', 'team-work', 'stonebreaking'. The eighteenth century account books of parish surveyors, and those of turnpikes and canals, all tend to be far more detailed in their entry comments than the more ritualized nineteenth century procedures.[2] After 1825 some canal account books begin entering payments against names,[3] which can be very irritating if the minute books, to provide the key, have been lost or destroyed. Fortunately where parish surveyors accounts list names under expenditure, they usually give further details.

If it can be assumed therefore, that parish accounts are reliable[4] the difficulty over pauper labour resolves itself into one of quality. It was found that there was never any attempt in the sample of parish books investigated to distinguish pauper labour in any way. The account books merely record payments for labour, possibly with details of the type of work and names. Where turnpikes paid waywardens to repair stretches of roads there is nothing in the turnpike accounts to suggest pauper labour was employed.[5] Contemporaries

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(1) P.P. 1821, IV., see below, Ch. 9.
(2) This tendency is not only to be found in transport undertakings. Prof. Pollard has found it true of many industrial and estate accounts, see Genesis of Modern Management, op. cit. Ch. 6.
(3) B.T.H.R. London. G.J.C. 23/4-7.
(4) For problems of reliability, see below, Section IV.
(5) Swinton Rd., etc., see above, p.50.

complained at great length of the dilatoriness and feebleness of the pauper labourers.(1) But Macadam spent much of his time urging turnpike trustees to reduce their employment of able-bodied men and horses in carting gravel, and to use more women and old men to break stones, although he was greatly opposed to pauper labour!(2)

The quality of labour, of management and of road surfaces are extremely difficult to evaluate, because a road might still function as a line of communication despite a very poor surface, The comments of contemporaries are generally so unreliable as to be of almost no use.(3) Their attitudes depended on whether they were considering a road for horsemen or for riding in a carriage, and on other subjective factors such as health.(4) In this respect workmanship on canals and river navigation is easier to assess, since if canal works were badly constructed they functioned poorly or not at all. The locks on the Dearne and Dove Canal for example, were so faulty that heaps of cinders were stacked by them to be thrown in to prevent them leaking after a boat had passed through.(5) Some faults were due to economy by the promoters, as in the case of the Turf-locks on the Thames(6) and the Wey Navigation.(7) In other cases difficulties were caused by the

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(1) Poor Law Report, quoted by Webbs, King's Highway, op. cit., p.200.
(2) Macadam, Remarks on Road Making, op. cit., p.104.
(3) E.F. Gay, "Arthur Young on Roads", Quarterly Journal of Economics, Vol. XLI, May, 1927.
(4) K.C. Macmahon, op. cit., p.14.
(5) S.C.L. Elm 405.
(6) F. Thacker, op. cit. Thames Commissioners Minutes, B.R.O.
(7) P.A.L. Vine, London's Lost Route to the Sea, op. cit. Wey Navigation Minutes, G.M.

inexperience or incompetence of engineers.(1) But bad workmanship on canals usually showed itself in mal-performance and high maintenance costs.(2) With roads it could only demonstrate itself in travellers comments, and more reliably, travelling times.(3) The statements of carriers on the number of horses necessary to drag a cart over a particular stretch of road are also valuable.(4)

Since the parish roads were apparently maintained by the same cash nexus as the turnpikes, it is difficult to find very much difference in the systems other than the quantity of money used per mile.(5) The parishes received money as composition for statute duty. In the sample examined, however, they habitually levied rates of about sixpence in the pound to such an extent that composition was a fraction of their total income. They then apparently paid at market rates for labour and materials. The turnpike income from tolls was generally so much greater that despite interest charges more could be spent per mile, and it is possible that turnpike management was more competent.(6)

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(1) Hugh Malet, op. cit. p.86 Brindley's difficulties with Barton aqueduct. Hadfield, Canals of East Midlands, (Newton Abbot, 1966), Telford's difficulties with Shelmore embankment on Birmingham and Liverpool Junction Canal. Kenneth Clew, The Kennet and Avon Canal, op. cit., pp.69-71 emphasises Rennie's incompetence over water supplies.

(2) P.A.L. Vine, ibid.

(3) Albert, op. cit., Ch.VII.

(4) Evidence of William Waterhouse, William Horne, etc. before Select Committee of 1819, reprinted in Macadam, Remarks on Road Making, op. cit., pp.84-94.

(5) Turnpikes such as the Leicester and Wanlip, L.R.O., spent less than many parishes. Some were entirely repaired by parishes with all the money from tolls paying interest on mortgages.

(6) This question is very difficult owing to enormous variations in standards of administration. One road might be very well run whilst a road running out of it was in terrible condition. Holyhead Road Reports, P.P. 1824, IX 293.

In this study therefore, the particular problem of pauper labour on roads, and the quality of labour over-all, has been ignored as impossible to assess retrospectively.

Separation of improvements and maintenance proved even more difficult in parish accounts than for turnpikes. In the sample investigated of rural parishes, surveyor's accounts are invariably simple entries for gravel, carting and so forth, with no attempt to discriminate new works. The only suggestion of new construction occurs when expenditure increases spectacularly through the efforts of an enthusiastic surveyor,(1) or an indictment.(2) In the context of the rural parishes examined this situation is reasonable, as at present it is the trunk routes, the equivalent of turnpikes, which have most money and effort lavished on them due to their heavy traffic density.(3) A comparison of the various editions of ordnance survey maps,(4) and the many sharp bends on minor roads testify that roads in rural districts have been left unimproved as adequate for their relatively low traffic load today. Considerable areas of West Sussex still have single lane country roads,(5) and Midland counties such as

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(1) Although churchmen and gentry were not under the normal compulsion to serve as parish surveyors (Webb's King's Highway, op. cit. p.27.) they frequently did so in the samples investigated, and expenditure usually rises under their guidance. See, Woolhampton 1778-9, DP/156/21/1, B.R.O. Sometimes a vicar would serve for years on end. This casts interesting light on management expertise vis-a-vis turnpike, and to some extent contradicts the Webbs' findings.
(2) Webbs' Kings' Highway, op. cit. Ch. IV
(3) See below, Ch. 3.
(4) Particularly the 1893, 2½" edition.
(5) For example, in the Petworth district.

Warwickshire, Leicestershire and Northamptonshire, still abound in gated roads,[1] which have remained in position exactly as they were since enclosures.

Indeed the principal massive injection of investment in new road construction for rural parishes generally came with enclosure.[2] In theory this road investment should have been included in the present study of the transport sector. In practice, however, the cost of new road construction due to enclosure is very difficult to separate from the total expenses of an enclosure scheme.[3] Perhaps a little illogically, the entire costs of enclosure including roads have been left in the agricultural sector.

In urban areas the parish surveyor was still officially responsible for all the streets in his district, both for the vehicle surface and the pedestrian pavement, if there was one. For principal thoroughfares this duty was often superseded by a turnpike trust;[4] In London for example, Oxford Street, the Marylebone Road,[5], City Road,[6] Old Street,[7] and the Edgeware Road,[8] were controlled by

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(1) For example, in the Rugby area. A gated road has no fences on either side and is therefore intersected by gates dividing fields.
(2) G.E. Mingay, English Landed Society in the 18th Century, (1963). F.M. Thompson, English Landed Society in the 19th Century, (1963)
(3) S.S.R.C. Conference.
(4) Although if a trust became bankrupt the parish was still legally liable, Webbs', op. cit., p.143.
(5) Oxford Street was under the control of the Marylebone Road for some of the period, Marylebone trust minute books, W.P.L. Also, F.H.W. Shepherd, Local Government in Marylebone, op. cit.
(6) I.P.L.
(7) I.P.L.
(8) G.L.R.O. Mddx.

the trusts like other main roads. In the majority of cases examined the trusts seem to have interpreted their responsibility as extending over the whole area of a street and to have kept pedestrian side-walks in some sort of order.(1) In addition, most urban trusts erected lamp-posts and serviced them, many employed watchmen,(2) some had scavengers,(3) and most watered their roads in summer to keep the dust down.(4) The Islington trust fought a constant war against dumping rubbish in the streets and even on occasion levied what amounted to parking fines.(5) All streets not under turnpike supervision were maintained in theory by the parish. In practice parochial inefficiency had led by the later half of the 18th century to the institution in most urban areas of Improvement Commissioners.(6) These bodies were set up by local private Acts and their powers accordingly differed widely. However, they were generally entitled to levy a rate of about sixpence in the pound(7) to be used for repairing pavements, lighting the street,

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(1) P.P. 1824, IX, 273 Telford's report of those parts of the Holyhead Road leading out of London. F.H.W. Shepherd, op. cit. T.F. Ordish, op. cit.

(2) 'Watching' was the contemporary term for employing men as private policemen to patrol a particular stretch of road.

(3) 'Scavengers' was use of men who cleaned streets and cleared rubbish.

(4) Surrey and Sussex Roads, S.R.O.

(5) A.J. Clark, in his Islington Turnpike Trust, op. cit. gives a lucid description of the difficulties of a trust as the road under its control changes in aspect from rural to predominantly urban. See, also, F.H.W. Shepherd, op. cit. and P.L. Payne, The Bermondsey, Rotherhithe and Deptford Trust, M.A. Thesis, London, 1952.

(6) An excellent description and analysis of these is to be found in the Webbs' Statutory Bodies for Special Purposes, op. cit. Ch. IV. Little work has been done since apart from specialist studies wuch as those of A.J. Clark and F.H.W. Shepherd, op. cit.

(7) Sometimes, as in early 19th century Manchester and Birmingham, the rate was confined to the property of wealthier inhabitants.

scavenging, watching, and possibly repairing sewers. In many respects these bodies were far closer to modern municipalities in their range of services than the typical 18th century corporation.(1) The work of these bodies together with the turnpikes, relieved the urban parish surveyors of much of the responsibility for the pavements and roads in their district.(2) Accordingly the effort of the statutory authorities is not reflected in the parish account books, as these bodies kept separate records. The expenditure of the urban turnpike has been fully accounted in their ledgers, although for the purpose of this study current expenses, such as scavenging, have been deducted as explained above.(3) But the work of paving commissioners(4) has proved far more difficult to quantify since their minute books have often survived but seldom their account books.(5) The minute books suffer from many of difficulties of interpretation noted above with canal company material,(6)

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(1) Webbs', Statutory Bodies, op. cit. p.236.
(2) The situation is a little confusing but it appears that Improvement Commissioners were generally concerned with pavements and not with surfaces for vehicles; these remained the responsibility of the parish in most cases. Nevertheless it appears that some town commissioners as at Stoney Stratford had paved the whole road surface according to Telford's report. P.P. 1824,IX,293. Equally, turnpikes were responsible for some pavements in Manchester, Liverpool and Wigan, G.H. Tupling, op. cit. p.47 and see below, Ch. 7.
(3) See above, p.10.
(4) Improvement Commissioners went under many titles such as Police Commissioners in Manchester, Lamp Commissioners in Birmingham, Paving Commissioners in The Clink, London, all illustrative of their various functions.
(5) Cambridge and Northampton for example, have full sets of 18th century minutes but no account books, the same is true in Islington of the parishes of St. James, St. Lukes, and St. John's, Clerkenwell. At the time of writing it seems that of provincial centres only Kidderminster and Abingdon have 18th century financial records. N.R.A.
(6) See above, p.43.

and many authorities did not issue printed public statements of revenue and expenditure until the 1840's.(1) Normally town parishes seem to have undertaken an absolute minimum of maintenance,(2) with little improvement of surfaces and rarely any widening. Nor had they the excuse of rural parishes with low traffic density, since with the growth of towns throughout the period(3) use of urban streets increased.

Since parish accounts seldom contained transfer payments they caused fewer problems of accounting technique than other undertakings, but they gave rise to greater problems of representation owing to the partial supersession of parochial authority by other bodies.

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(1) Cambridge, Public Library.
(2) Webbs', ibid., though urban centres such as Chelmsford in Essex spent far more each year than rural parishes since the cost of maintaining urban streets were higher with a greater traffic load.
(3) J.R. Kellett, op. cit., pp.311-316, and A. Weber, The Growth of Cities, 2nd. Ed., Cornell, 1963.

IV. The Reliability of Eighteenth Century Accounting

The reliability of 18th and 19th century account books and contemporary returns requires consideration, because if the basic material for constructing investment estimates is dubious then the whole study is called into question. The financial records of the majority of transport undertakings examined in detail revealed that the estate steward accounting system, expressly designed to detect fraud,(1) was widely employed. The larger concerns tended to use it as one system of accounting among several whereas the smaller had it as a sole method. But the viability of the system depended entirely on the frequency and thoroughness of examination and auditing, which varied greatly between undertakings.

It has been noted that in the sample examined most parishes regularly levied highway rates, which had to be sanctioned by justices.(2) It appears that the justices also scrutinized and roughly audited waywardens' accounts. Certainly the majority of the accounts investigated were generally signed and stated to be passed, by at least two justices in October of each year.(3) Moreover, this practice seems to have been established in the early part of the 18th century, and was by no means a mere formality. Queries were made and occasionally

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(1) See above, p. 29.
(2) Webbs', King's Highway, op. cit. p.37.
(3) This was so in all counties investigated. See App. D.

heavier rates than requested were levied to put the roads in better repair.(1) Furthermore surveyors account books often seem to have been signed and checked by churchwardens and other vestry officials prior to examination by the justices. As waywardens tended to come from more respectable members of a community(2) they possibly had less cause for peculation and more interest in good roads than they have been credited with. It must not be overlooked that farmers had an interest in the parish roads for transporting their produce to market, and moving lime or marl on to their fields. It therefore appears from the sample examined that parish surveyors accounts were fairly rigorously scrutinized, and a countryman found guilty of corrupt practices might well incur a degree of odium from his neighbours out of all proportion to the sums involved. Then as now there was much concern to keep rates down, and prevent misapplication of funds.

As paid officials, turnpike surveyors occupied a rather different position.(3) In 1770 their average wage appears to have been around £30 p.a.; this rose to almost double by 1810 and climbed higher as more professional services were demanded.(4) Some of the

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(1) Beedon parish was ordered to spend more. B.R.O. D.P.15/12/1.
(2) Despite the Webbs' comment, op. cit.,pp.38-39. A good idea could be gained of the surveyor's social standing since account books often contained full details of rates with rental values per annum of all land owned in a parish. See also, Jackman, op. cit., p.222, footnote 3.
(3) The Webbs note the use of paid officials by some parishes, possibly urban, op. cit., pp. 194-5, as no example was found in the books of the predominantly rural parishes examined.
(4) Macadam was paid £400 per year by the Bristol Trust in 1818, and later gained large remuneration from his wide consultancy work.

larger trusts in terms of revenue paid considerably more earlier in the 18th century, and some of the smaller paid less. It is possible that the salary was paid in some cases as a type of retainer for a part-time permanent gentleman surveyor.(1) In this case the incentive to corrupt practices was possibly less than where it formed a10/- per week wage for a full-time lower class surveyor. The situation is even more confused by the rise of the consultant professional surveyors, who share some less flattering features with the professional enclosure commissioners.(2) Both could be extremely expensive and inefficient on occasion, although at other times their experience and expertise could be economical. Probably the most famous professionals were John Macadam and his son James who were already acting together for 34 trusts in 1819 and subsequently acted for several hundred.(3) The Macadams practised as general superintendent surveyors in an advisory capacity but it seems from a recent study of the Whetstone Trust,(4) that the consultancy system could be very ineffective in some cases. James Macadam came into direct confrontation with Telford over this road, as Telford surveyed it for the Holyhead Road Commissioners.(5) He

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(1) T.F. Ordish, op. cit. p. 178.
(2) Notably John Bircham of Coningsby, Lincs., in W.E. Tate, Enclosure and the English Village Community, (1967), p. 112.
(3) P.P. 1825, XX, 149.
(4) H. Lansbury, "James Macadam and the St. Albans Turnpike Trust, J.T.H., Vol. VII, 1965. For further Macadam inefficiency, see, Rebecca Riots, op. cit. p.182. However, the Macadams emerge in a better light from R.H. Spiro's "Macadam and the Metropolis Turnpike Trust", J.T.H., Vol. II, 1955-6.
(5) P.P. 1824, IX, 293.

found inadequate foundations were aggravated by the heaping on of road material which made excessive draught necessary.(1) The general surveyors expected the permanent surveyors to carry out their instructions, with inspection by the superintendents to improve efficiency and ascertain that directions were being fulfilled. Macadam would seem to have been neglectful on this occasion, and there were presumably other instances where consultant road surveyors took on too much work.(2)

For the rest, permanent surveyors had the incentive of secure and regular employment, which was far less widespread in this period of general under-employment,(3) and trusts seem seldom to have experienced difficulty in filling vacancies.(4) It appears from minute books and parliamentary enquiries that the efficiency of surveyors was related to the general level of competence in a trust; if the trustees were enthusiastic and vigilant and held regular meetings, the clerk, treasurer and surveyor were usually closely supervised.(5) Where some of the larger trusts had several district surveyors such control was most necessary. But if the trustees were negligent it is reasonable to assume that salaried officials often tended to be inefficient, and

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(1) Telford surveyed the whole of the Holyhead Road with a Dynamometer. P.P. 1824, IX, 293, a remarkable example of his scientific thoroughness.
(2) P.P. H.O.L. 1833, Vol. 10, B.M.
(3) E. Hobsbawm, Labouring Men, (1965), pp 72-82.
(4) It frequently became established in trusts that a son should succeed his father as surveyor as is typical in pre-industrial society. Hagen, On the Theory of Social Change, (1968), pp 175-180 For example, for Fulham Bridge Trust, the proprietors presented their surveyor with a piece of plate to commemorate his years of service with them and his son started his duties the following week. This also became very common with canal companies.
(5) A.J. Clark, op. cit.

difficulties of administration were undoubtedly the principal cause for the popularity of contracting road repairs.(1)

In any case efficiency was not measured by an accounting system designed to prevent fraud. It seems to have been remarkably effective in this respect as very few cases of embezzlement were encountered.(2) This could simply mean that jobbery continued undetected, but the voucher system would have made this difficult. Treasurers were generally local bankers(3) and were remunerated by the interest on the trust funds they handled, and they sometimes enjoyed a salary in addition. Their motives for corruption were slight, and most difficulty seems to have been caused in this respect by local bank failures.(4) Similarly, clerks were usually local solicitors who profited enormously within the law from their fees for trust business,(5) often with a salary as well. The vested interest of these two classes in the profitable perpetuation of the status quo formed a most important factor in preventing further rationalization and efficiency of the 19th century turnpike system.(6) Some trustees were themselves guilty

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(1) S. Pollard, Modern Management, op. cit. pp. 51-63.
(2) Despite the comments of Jackman, p.240. Both Jackman and the Webbs seem to have indulged far too much in generalising about trust corruption and inefficiency from particular instances. Perhaps this tendency was natural with their inevitable total reliance on literary and parliamentary sources owing to the dearth of original records when they were writing. For Propagandists such as Edgeworth, much quoted by both, often gave examples of the worst abuses to support their contentions for reform.
(3) Albert, op. cit. pp.120-122.
(4) Albert, op. cit., pp.120-122.
(5) P.P. 1826-7, XX, VI.
(6) T.F. Ordish, op. cit. p.163.

of jobbery, though it is possible that this has been over-emphasized in the past.(1) Clearly it is the turnpike surveyor who had most opportunity for peculation,(2) and it is almost impossible to evaluate the extent of this in retrospect, as the account books reveal little. For there was no external auditing or check of any practical value on a trust.(3) In the 17th and early 18th century J.P.'s had been empowered to examine(4) trust accounts but in practice they had rarely done so, and by 1750 this control had lapsed. The power was revived by the General Turnpike Act of 1773,(5) which also made provision for the penalties for failure to repair under an indictment to be divided between parish and turnpike as the justices saw fit. The effects of these revisions of the law seem to have been negligible. Trusts remained responsible to Parliament,(6) and that body alone investigated their affairs with full access to all their records.

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(1) A.J. Clark, op. cit., shows that the apparent jobbery in the Islington Trust was almost a necessity. All the local owners of gravel and other materials were trustees and when they were prohibited from contracting under the Act, 3 George IV, c.126 the greatest difficulty was experienced in finding alternative supplies. A similar situation must have arisen in many other districts.

(2) Jackman becomes so vehement in his comment on surveyors on page 239 that the text grows extremely confused as to whether he is referring to parish or turnpike officials. The whole of Chapter 4 suffers greatly from repetition and confusion of a similar nature.

(3) Webbs' King's Highway, op. cit., p.121.

(4) Webbs', ibid, p.119.

(5) 13 George III, c.84.

(6) Webbs', ibid, p.142.

In the mid-18th century treasurers' account books were often only balanced every five or six years,[1] although some larger trusts had already begun to balance books yearly.[2] As this practice spread, so did the trustees develop the habit of examining the treasurer's accounts at least once a year. In some trusts accounts were examined and signed quarterly and bi-annually,[3] while others kept ledgers apart from the cash books and a few even began to make up a form of annual statement.[4] Parliament appears to have exercised its rights of investigation infrequently in the 18th century,[5] but concern grew to call forth a spate of committees in the early 19th century.[6] By the Act of 1820[7] trusts had to submit full details of their dates of origin and renewal, mileage and terminal points, and debts, as well as expenditure and income averaged over the three previous years. These were duly published and thereafter trusts had to return annual statements to the clerks of the peace.[8] In 1833 the system was

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(1) Staffs. R.O., Cheadle Road, D.239/m.
(2) Islington Trust, I.P.L. See also, F.A. Bailey, "The Turnpike from Liverpool to Prescott", Trans. Hist. Soc. Lancs. & Ches. Vols. 88, 89, in which it appears that this trust had annual statements due each June from the mid-18th century,
(3) Fulham Bridge Trust minute books, P.R.O. 30/26.
(4) See above, p.31.
(5) H.O.C. Journals XXVI, 1752, pp.490-3, XXIX, 1763, pp.646-4. These appear the only full investigations of trust accounts until the 19th century.
(6) Jackman, op. cit., p.227.
(7) 1 George IV, c.95.
(8) P.P. 1821, IV, See above, p. 34.

formalised and all returns were published annually. This Parliamentary activity had a profound influence on the methods and reliability of trust accounting,[1] but unfortunately some of the parliamentary material was carelessly compiled. This is particularly true of the aggregates of the 1820 returns. The man partly responsible for this was Mr. Michael Irish who had previous practical experience as a turnpike surveyor in Hampshire and Sussex. He explained to the 1833 Committee of the House of Lords[2] that the principal errors in the 1820 returns were in the "castings" or totalizing and not in the detailed returns themselves.[3] It is the latter which have been used to compile estimates for this study.[4]

The whole tenor of evidence for the Lords Committee gives confidence for the reliability of the 1829 and subsequent returns. The 1824 turnpike statements[5] were printed almost exactly as the originals with no processing, but some of the earlier highway returns have had to be used with caution.[6]

Since there is scarcely any parliamentary material dealing with waterways in this period, this study has relied almost entirely on original account books. The presentation and reliability of these is better than for roads because the scale of operations tended to be

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(1) See above, p.33.
(2) P.P., H.O.L. 1833, Vol. 10, B.M.
(3) ibid.
(4) See below, Chapter 4.
(5) P.P. 1824, XX.
(6) P.P. 1818, XVI, p.255

larger. As profit-oriented organisations, navigation companies were responsible to shareholders who had the right to intimate knowledge of the companies' financial situation.(1) There seems to have been far closer supervision of all salaried executive officers in canal companies by directors accountable to shareholders. Canal company boards usually met more frequently than turnpike trustees and had a more detailed knowledge of administrative affairs. The Grand Junction, and Staffordshire and Worcester directors(2) were in the habit of meeting several times a week, but as with turnpikes vigilance and efficiency tended to be a function of the scale of enterprise.(3)

The financial background of the railways has been greatly criticised by both contemporaries(4) and by modern economic historians.(5) However, the canals never produced an equivalent of Hudson,(6) and contemporary criticism was far more concerned with canal efforts to monopolise carrying routes and make exorbitant charges.(7) The opportunities for fraudulent financial practices which obtained in railway companies

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(1) See above, p. 44.

(2) B.T.H.R., G.J.C. 1/1-11. STW 1/1-9
(3) See above, p. 30.
(4) D. Morier Evans, The Commercial Crisis, 1st. Ed. 1848.
(5) A.G. Kenwood, op. cit., He discusses the frequent implication of railway companies in dubious financial procedures and the effect of this on his estimates. He concludes that this has no important overall effect on them.
(6) R.S. Lambert, The Railway King, 1800-71, (1934)
(7) See above, p. 46.

simply did not exist with canals or turnpikes because of the tremendous difference in the scale of operation.(1) Waterways and roads usually had much closer financial ties with the localities they traversed, and because they were prohibited from acting as carriers, canal companies did not generally possess the power of their successors.(2) In this respect it is significant that very few parliamentary investigations into the affairs of canal or river navigations took place.(3) Nor can it be assumed that this lack of enquiry was due to the political power of the interests involved. Political influence did not prevent investigation of either the turnpikes or the very much stronger railways.(4) Moreover, the turnpike enquiries were generally more interested in administrative waste of money and technical incompetence than with large scale fraud and corruption.(5)

In all types of undertaking wherever pages of figures did not appear to reach the stated totals these have been checked. Very seldom have they been found incorrect. Therefore it must be concluded that if widespread corruption obtained in the management of roads and navigations, it has not been discovered in the account books examined in the course of this study. Estimates of investment in transport have thus been drawn up on the basis of the general reliability of source material.

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(1) Ch. 8, below.
(2) Parris, op. cit., pp.8-9.
(3) A few did however, viz. Weaver Navigation. P.P. 1837-8, XLV, 1844, XLV
(4) Parris, ibid, pp.52-3. See also, Phillip Bagwell, "The Railway Interest", J.T.H., Vol. VII, 1965.
(5) This is true of almost all the multitude of early 19th century select Committee enquiries.

CHAPTER 3

INVESTMENT IN TURNPIKES: GOVERNMENT RETURNS 1822-56

Previous attempts at estimating the amount of capital invested in 18th century turnpikes have been based largely on the number of Acts passed in each year.(1) This figure was then multiplied by a 'guestimate' of the average expenditure on new construction which each Act was assumed to represent. But even when the number of Acts is known accurately,(2) the averaging of the capital raised is highly suspect. For turnpike Acts very seldom included any details of the amount of money to be raised for road improvements. This was left entirely to the discretion of the trustees, and one of the most vehement criticisms made of them in the early 19th century was that there were no restrictions whatsoever on the quantity of money they were permitted to raise on the security of the toll.(3) It was the over-indulgence of this open-minded sanction which brought many trusts into financial difficulties.(4) Any average for the amount of

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(1) P. Deane and W. Cole, British Economic Growth, (Cambridge, 1964). Mitchell and Deane, Abstract of British Historical Statistics, (Cambridge, 1962). Also A.D. Gayer, W.W. Rostow and A.J. Schwartz, The Growth and Fluctuations of the British Economy, (Oxford, 1953)

(2) The number of Acts has been estimated in the past by Jackman, and more recently by Albert from the B.M. collection. But this method is dubious since even the B.M. does not have all the Acts, and in any case the passing of an act does not necessarily mean the establishment of a road. For the present project dates of origin have been based on the local studies cited in App. E, below, Albert's list of British Museum Acts and the P.P.1821, IV return of acts of origin.

(3) P.P. 1808, II, 463.

(4) P.P. 1849, XLIV, 339 is one of many similar sources of parliamentary material. G.H. Tupling, op. cit. cites the Manchester - Mottram, and Rochdale - Bury Roads among others on being taken over by the creditors and there were generally several such roads in each county.

expenditure represented by a new Act must be based on an examination of source material for various localities. Such an investigation has not been previously attempted for this purpose.

A further defect of any type of capital raised method is the inclusion of transfer payments for land, damages, and so forth[1] which were often made from money borrowed. Furthermore, improvements and new construction work were often financed from current revenue. However, the creation of a new asset constitutes investment whether it is paid for from revenue or from borrowed money and therefore a proportion of investment is omitted by excluding the former.

For the rest, 'guestimates' have been supported by the literary evidence of contemporaries like Arthur Young and his fellow investigators from the Board of Agriculture such as Marshall, Pitt and Tuke.[2] Both Jackman and the Webbs quote the Board County Reports extensively.[3] It is not the purpose of the present writer to enter the controversy over the 'new' econometric history of Fogel and North[4]

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(1) See above, p.10.
(2) A.S. Turbeville, Ed., England in the Age of Johnson, (Oxford, 1933) "Travelling" Ch. IV, by H.L. Beales for further comment of contemporaries including a quotation from the Middlesex Board of Agriculture report for 1798 which praises the parish highways of that county as being generally in a very good condition.
(3) Jackman, op. cit., pp.246-256. Webbs', op. cit., p.163.
(4) R. Fogel, Railroads and American Economic Growth, (Baltimore, 1964). E.H. Hunt discusses the virtues of the "new" economic history in some detail in his article "The New Economic History", History, Vol. VII, No.177., 1968, where he also cites other reactions and reviews. This is largely criticism from historians but for a lucid analysis of the virtues and vices of econometric history by an economist, see, Meghnad Desai, "Some Issues in Econometric History", E.H.R., 2nd series, Vol. XXI, No. 1, 1968.

and their disparagement of 'traditional' literary sources. In fields where unquantifiable factors are predominant, as in the assessment of the contribution of an individual to an event, the literary evidence of conflicting contemporary impressions can be of great value.(1) But where the factors under investigation can be quantified relatively easily, as with transport history, then the acknowledged defects of literary evidence make attempts at statistical analysis valid. In addition, apart from the reliability of the material itself there are all the inherent dangers of selectivity in using literary sources.(2) Moreover, the drawbacks of impressionistic contemporary comment in evaluating improvements in roads are paramount. The detailed analysis of Arthur Young's inconsistency in commenting on roads by E.F. Gay(3) could no doubt be repeated with the writings of other contemporary travellers. Such comment was inevitably conditioned by individual temperament, the season of year, the type of conveyance, and whether the journey was for business or for pleasure; other factors of significance were whether the journey was cross-country or North-South and the particular year it was made. A very hard winter with severe snow-falls such as 1836,(4) or a very wet summer like 1794(5) could render a road much worse than average. Equally, the employment of a particularly inept or corrupt

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(1) E.H. Hunt, op. cit.
(2) E.P. Thompson, The Making of the English Working Class, p.229, Penguin Ed. 1968.
(3) E.F. Gay, op. cit. See above, p.54.
(4) Atholl Maudsley, Highways and Horses,(1888) pp. 87-96.
(5) D.G. Barnes, History of the English Corn Laws,(1930). and see also, N.S.B. Gras, The English Cornmarket,(1915).

surveyor, an incompetent contractor[1] or a worsening financial position due to a renewal act could all affect a road in a particular year.[2] But above all it is the relative standards of comparison which form the crux of the matter; to state that a road is 'bad' communicates little in terms of relativity. The important factor is bad in relation to what? How bad? In this respect it is clear from contemporary comments that a road considered to have a 'good' surface in 1765 might have been deemed 'bad' in 1790 and well-nigh 'appalling' by 1820.[3] There is an interesting dichotomy of opinion between the earlier Board of Agriculture reports of 1794 and the later reports of 1811-12, which is not simply due to the increased detail of the later survey. The earlier writers seem to have been generally impressed with 'good'[4] roads whereas by 1812 there is far more criticism.[5] Amid confusion of this nature some attempt at quantitative analysis with closely defined terms seems necessary.

Some movement in this direction was attained by Jackman[6] and more recently by Albert.[7] They gathered information on journey

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(1) G.H. Tupling, op. cit. p.201
(2) Ibid.
(3) For example, Macaulay's often quoted comments in his History of England. See also, F.A. Bailey's 6omment on pre-turnpike roads, op. cit., and a careful reappraisal of 18th century roads from the experience of a glass manufacturer in G.H. Martin, "Street Lamps for Kendal", J.T.H., Vol. VII. This also discusses the relative efficiency of the coasting trade and road transport at this time.
(4) Webbs', King's Highway, op. cit. p.163.
(5) Jackman, op. cit., pp.251-2
(6) Jackman, ibid, App. 6, 7.
(7) Albert, op. cit., Ch. VII.

times and the cost of travel as a reflection of the improvements and increased efficiency of the transport system. But despite analyses of sources such as the justices rates for land carriage by Professor Willan[1] and lately by Dr. Albert[2] there is insufficient material available to indicate more than the broader trends of road improvements. Furthermore, the price of carriage is partly a function of factors such as frequency of travel, amount of competition, price of horse-feed and so forth, some of which are difficult to assess.[3]

A reliable analysis of the development of investment in roads must therefore be based on a detailed study of the original account books. The methods employed in forming estimates for this study have therefore been dictated entirely by the source material available. In the absence of national statistics for most of the period[4] it has been necessary to extract figures from surviving original account books. Unfortunately, however, there are insufficient surviving ledgers to take a deliberate random sample. The survival rate of minute books is usually much higher,[5] but in most cases they cannot be made to

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(1) T.S. Willan, "The Justices Rates for Land Carriage", J.T.H., 1967.
(2) W. Albert, "Justices Rates for Land Carriage re-considered", Transport History, 1968
(3) Both Dr. Albert and Prof. Willan try to take into account the price of horse-feed but other factors are more difficult.
(4) No reliable national statistics exist until 1829. See below.
(5) Possibly these were kept to help prove the acquisition of land by a trust. It does not seem that account books were deliberately destroyed to conceal peculation, but rather because no one thought them of any value.

yield the material required.[1] Thus in practice it has been necessary to examine the majority of ledgers still extant. The incidence of preservation varies greatly[2] because there was no regular procedure for handing over the trust records as roads were disturnpiked[3] in the second half of the 19th century. As statutory bodies there was some sort of obligation to deposit their records with the local clerk of the peace.

However, while it continued to function, the records of each trust were safeguarded by its clerk, generally a local solicitor,[4] and the clerks of the peace usually seem to have been content to leave trust records in these hands, even after a turnpike was defunct. In most cases it is only since the establishment of county record offices this century[5] that the records have been available for public examination. In the meantime the majority have been lost or destroyed and it is only a presumably unrepresentative sample which has survived.

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(1) See above, p. 32.

(2) For example, Bedfordshire has 18th century ledgers for two trusts out of twelve, Buckinghamshire has one out of eleven, Cornwall two out of thirteen, Devon one out of eleven, Dorset two out of eleven, Essex three out of ten, Hertfordshire four out of eight, Middlesex five out of twenty-five, Northamptonshire two out of Twenty-one, Nottinghamshire one out of nineteen, Somerset two out of twenty-three, Surrey one out of sixteen, and Warwickshire two out of thirty-nine.

(3) Disturnpike was the very ugly 19th century term for winding-up a trust.

(4) Albert, op. cit., pp.117-118. The West Riding forms a notable exception. The clerk of the peace in 1893 called in all trust records and consequently Wakefield has the best collection today of turnpike material in the whole country. But as the West Riding also had more trusts (sixty-seven) than any other county, the proportion was not greater for the estimates of this study.

(5) Many counties had offices where records were kept and could be consulted, in the 18th century, viz: Cornwall, and see, Guide to Essex Record Offices, by F. Emmison.

Most of the existing turnpike trust account books for any years in the period 1750-1820 were examined. Where possible[1] transfer payments have been deducted and figures of net expenditure derived.[2] The books thus examined represent about 7 per cent of the total number of trusts but about 5 per cent of the total mileage in 1822. With this information it would have been possible simply to work out an average cost per mile and multiply the remaining mileage. This method was attempted but it was felt that the sample investigated was not a sound statistical random choice, and it was considered that a better method was available with the assistance of parliamentary material.[3] Among other information returns published in 1820[4] contain the names, dates of origin, and mileages of every trust in the country, and these details were extracted. From 1822 onwards[5] trusts were required to submit detailed annual statements of revenue and expenditure with the clerks of the peace of their locality. These statements for 1822-3 and some for 1823-4 were published in 1824[6] almost exactly as returned. The 1828-9 returns were published in a processed form with details of mileages in 1833,[7] and in that year all trusts were required to

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(1) See above, p.10
(2) See above, p.29
(3) See below, p.102, passim.
(4) P.P. 1 820, IV.
(5) 2 George IV, c.136
(6) P.P. 1824, XX.
(7) H.o.L. 1833, Vol. 10, B.M.

standardize their returns. Thereafter these were analysed and published each year with full abstracts, and from 1833 onwards these detailed national statistics have been used in connection with this study.

From 1822 to 1832 the unpublished statements filed with the clerks of the peace have been examined for about half of the counties.(1) For each trust full details of net expenditure were extracted from account sheets similar to that in Table I. It was found in the course of this detailed investigation that there was generally a steady growth of expenditure between 1822 and 1829 but relatively few marked fluctuations. It was therefore decided that it would be reasonable to deal with the remaining counties by taking an average for the whole period 1822-32 from the parliamentary returns of 1822 and 1829.

For example, at this stage the following details had been derived from parliamentary material and examination of all the statements filed with the clerks of the peace for the counties of Bedfordshire, Essex and Warwickshire. The material extracted is set out below in Tables III, IV and V., and comprises the name of each trust, the mileages,(2) and the net expenditure in each year from 1822 to 1832.

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(1) Beds., Berks.,Bucks, Cambs., Cornwall, Derbs., Devon, Dorset, Essex, Herts., Kent, Leics., Lincs., Mddx., Norfolk, Northants., Notts., Somerset, Staffs., Surrey, Warwicks., Yorks., West Riding, were all examined. In total 452 out of 1,100 trusts in 1822. See App. A below.

(2) The original ledgers containing the MSS copies of the 1820 returns with dates of origin and mileages remain among the Quarter Sessions records in some counties but have been lost or destroyed in others.

TABLE III

1820's COUNTY RETURNS FOR BEDFORDSHIRE

Year	1772 Bedford - Willington (14 miles) £	1777 Woburn - Bedford (14 miles) £	1795 Kimbolton - Bedford (13 miles) £	1814 Newport Pagnell - Bedford (12 miles) £
1822-23	519	506	226	314
1823-24	591	412	224	381
1824-25	428	411	207	404
1825-26	501	394	299	296
1826-27	380	408	217	324
1827-28	388	388	235	266
1828-29	364	497	241	245
1829-30	369	567	231	262
1830-31	599	478	261	230
1831-32	408	477	346	251

Year	1757 Hitchin - Bedford (25 miles) £	1707 Hockliffe - Woburn (13 miles) £	1727 Bedford District of Luton Road (17 miles) £	1725 Luton District of Luton Road (20 miles) £
1822-23	1,077		612	604
1823-24	1,233	2,014	572	594
1824-25	1,216	2,192	556	642
1825-26	1,496	2,743	553	576
1826-27	1,303	2,081	466	465
1827-28	1,456	2,465	532	573
1828-29	1,483	2,816	648	937
1829-30	2,686	3,461	717	3,240
1830-31	1,618	2,806	1,260	4,936
1831-32	1,391	2,588	1,216	1,704

TABLE III (cont'd.)

Year	1702 Puddle Hill Dunstable - Hockcliffe (4 miles) £	1802 Risely Road (10 miles) £	1802 Ordell Road (9 miles) £
1822-23	1,794	431	504
1823-24	358	211	320
1824-25	1,426	187	215
1825-26	4,250	190	387
1826-27	2,561	240	256
1827-28	1,330	241	148
1828-29	1,212	146	268
1829-30	1,180	242	258
1830-31	1,273	207	168
1831-32	1,442	202	195

TABLE IV

1820's COUNTY RETURNS FOR ESSEX

Year	Lea Road	1793 Rochford Hundred Rd. (26 miles)	1724 Epping & Ongar Trust (20 miles)
	£	£	£
1822-23	713	854	1,347
1823-24	1,321	760	1,493
1824-25	1,279	752	1,320
1825-26	841	1,102	1,471
1826-27		792	
1827-28		761	2,332
1828-29		715	1,789
1829-30		704	1,709
1830-31		794	4,956
1831-32		741	4,737

Year	1744 Essex & Herts. Rd. (Hockerill Rd.) (27 miles)	1802 Barking Rd. (4 miles)	1793 Maldon - Braintree (13 miles)	1793 Colchester Rd. (26 miles)
	£	£	£	£
1822-23	2,005			
1823-24	2,122			
1824-25	3,862			
1825-26	1,682			
1826-27	2,923			
1827-28	2,310	790		
1828-29	4,810	666	324	1,655
1829-30	7,374	694		
1830-31	5,543	772	382	1,939
1831-32	1,357	620		1,911

TABLE IV (cont'd.)

Year	1765 Little Waltham Rd. (18 miles) £	1793 Essex 2nd. Dist. (17 miles) £	1793 Chelmsford Rd. (44 miles) £
1822-23	873		
1823-24	663	444	3,715
1824-25	667	441	
1825-26	776	367	
1826-27	772		
1827-28	754	316	
1828-29	716	384	2,068
1829-30	600	342	
1830-31	558	335	
1831-32	550	345	

Year	1793 Halstead Turnpike (36 miles) £	1793 Coggeshall Road (3 miles) £
1828-29	1,326	
1831-32	1,538	159

TABLE V

1820's COUNTY RETURNS FOR WARWICKSHIRE

Year	1819 Evesham - Alcester (10 miles) £	1812 Rugby - Hinckley (14 miles) £	1762 Coventry - Fillongley Rd. (10 miles) £	1794 Dunchurch - Southam (7 miles) £
1822-23			33	156
1823-24	499		80	135
1824-25	692	139	145	177
1825-26	712	354	276	
1826-27	559	149	177	148
1827-28	444	124		
1828-29	309	252	176	147
1829-30	276	127		
1830-31	268	178		
1831-32	292	134		

Year	1754 Stratford - Alcester - Bromsgrove (32 miles) £	1814 Alcester - Wootton (6 miles) £	1754 Coventry - Warwick (11 miles) £	1765 Warwick - Northampton (32 miles) £
1822-23				1,095
1823-24	1,046	59	534	1,483
1824-25	2,301	93	471	2,088
1825-26	1,318	103	649	2,330
1826-27	1,044	147	426	2,546
1827-28	1,204	51	388	1,850
1828-29	1,086	10	433	1,544
1829-30	1,637	26	537	1,812
1830-31	1,177	10	823	1,779
1831-32	1,586	57	546	1,669

TABLE V (cont'd.)

Year	1801 Rugby - Lutterworth (6 miles) £	1818 Rugby - Warwick (16 miles) £	1779 Stratford - Edgehill (12 miles) £	1726 Birmingham - Warmington (36 miles) £
1823-24	204	203	103	1,687
1824-25	201	250	375	1,511
1825-26	210	213	208	1,960
1826-27	179	147	217	1,396
1827-28	470	135	263	1,310
1828-29	487	227	29	1,361
1829-30	176	227	53	
1830-31	270	236	22	
1831-32	195	147	55	1,715

Year	1724 Dunchurch - Stonebridge (19 miles) £	1726 Birmingham - Stratford Rd. (21 miles) £	1807 Birmingham - Shenstone-Bassett (Watford Gap Rd.) (8 miles) £	1745 Birmingham - Stonebridge (8 miles) £
1822-23	1,163	1,076	427	638
1823-24	1,843	1,345	490	895
1824-25	1,415	1,397	599	1,111
1825-26	1,429	1,689	2,810	1,295
1826-27	1,466	1,553	2,535	1,650
1827-28	1,291	2,156	4,043	1,334
1828-29	2,628	1,833	2,856	1,099
1829-30		1,306	2,109	922
1830-31		1,565	2,784	1,156
1831-32	1,859	1,507	1,828	2,479

TABLE V (cont'd)

	1767 Northfield - Wootton Road (12 miles)	1744 Welsh Harp, Stonebridge, Birmingham, Castle Bromwich	1760 Castle Bromwich Road (16 miles)	1730 Stratford Long Compton (20 miles)
1822-23			427	
1823-24	49	171	418	3,116
1824-25	88		464	3,681
1825-26	103	152	339	5,561
1826-27	131	168	366	7,922
1827-28	69	105	487	2,662
1828-29	86	137	248	2,334
1829-30	11	154	427	1,574
1830-31		160	351	2,036
1831-32		410	532	1,585

Year	1770 Tamworth Measham (23 miles) £	Bentley Lane Road (10 miles) £	1817 Campden Road (Cross Hand Rd.) (16 miles) £	1754 Hinckley & Coventry Rd. (12 miles) £
1822-23	635	223	160	831
1823-24	890	443	313	1,095
1824-25	817	593	389	1,405
1825-26	865	460	329	2,128
1826-27	727	319	356	1,108
1827-28	595	312	338	1,359
1828-29	772	313	439	1,394
1829-30	908	244	107	1,364
1830-31	1,042	262	139	
1831-32	1,526	208	129	2,358

TABLE V (cont'd.)

Year	1762 Mancetter - Wolvey (10 miles) £	1762 Cross Hands - Nuneaton (7 miles) £	1787 Warwick - Stratford (18 miles) £
1822-23	463	48	601
1823-24	420	73	319
1824-25	353	175	1,037
1825-26	445	72	1,023
1826-27	278	122	1,752
1827-28	271	124	955
1828-29	336	198	733
1829-30	401	144	1,176
1830-31			1,569
1831-32	324	149	1,278

Year	1770 Wellesbourne - Stratford (5 miles) £	1788 Cross Hands - Southam - Banbury (23 miles) £	1772 Stonebridge - Kenilworth (9 miles) £
1822-23	282	1,881	82
1823-24	318	1,315	
1824-25	298	1,209	122
1825-26	136	1,390	137
1826-27	74	1,602	89
1827-28	117	1,433	53
1828-29	90	1,151	91
1829-30	94	1,236	98
1830-31	98	1,136	72
1831-32	117	1,906	87

These three Tables illustrate clearly the administrative problem of a trust crossing several counties. For it was left entirely to the discretion of each trust to send returns to whichever clerk of the peace it chose. Thus as it only touched part of Bedfordshire, the Stevenage - Biggleswade Road sent most of its returns to Hertford.(1) Even more clearly in Table IV the Essex and Hertfordshire Road might well have suffered a division of 'loyalties', although it can be seen that in fact the returns were sent to Chelmsford.(2) These trusts also took the trouble to inform the clerks of the peace of Hertfordshire and Middlesex that they should not expect returns. But such consistency was not always observed and other trusts in this position would send returns to one county in one year and to another the next. The Banbury - Daventry - Lutterworth trust sent one statement to Warwick,(3) four to Northampton,(4) and its full set apparently to Leicester.(5) It may also have sent some to Oxford.(6) There are generally only two or three

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(1) Herts. R.O. Q.S.
(2) E.R.O. Q.S.
(3) Warwicks. R.O. Q.S.
(4) N.R.O.
(5) Some county record offices visited, such as Leicester, Norfolk and Cornwall, did not have the statements filed with the clerks of the peace which should be among the Quarter Sessions records. In these cases the returns had been destroyed or mislaid. However, these counties could be covered from the parliamentary sources, and all the Banbury Rd. returns are classified in this source under Leicester. It had therefore been assumed that the road sent its full set of returns there.
(6) The county record office at Oxford was among those not visited following the decision to average from parliamentary sources. The returns filed with the clerk of the peace at Oxford have therefore not been examined and it is possible they contain statements for the Banbury Road, although these are not classified under Oxford in the parliamentary returns.

roads in each county in this difficult situation, although some Midland counties are involved with this problem to a much greater extent than areas such as Cornwall.(1) The anomalies caused by difficulties of administrative responsibility add greatly to the problem of analysis since they are reflected in the parliamentary returns. Thus in the Manchester region there were a large number of trusts of which a high proportion owed a fluctuating allegiance to Derby, Chester and Lancaster. The Manchester - Saltersbrook Road for example, is classified under Cheshire in the 1823 return but under Lancashire in 1829.(2) On the northern border of Staffordshire the Sandon - Draycott Road was sometimes entered under Cheshire.(3)

In addition the names of some trusts alter, and sometimes a detailed knowledge of local topography was necessary to identify a road. Fortunately the 1820 returns(4) usually gave terminal points as well as names, but nevertheless some roads were very difficult to classify. The Crossford Bridge - Manchester Road of the Lancashire

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(1) The Old Stratford - Dunchurch trust sent some statements to Warwick and some to Northampton. Other examples include the New Cross Trust on the outskirts of London which sent some returns to Kent and some to Middlesex. The Surrey and Sussex trust also suffered division of loyalties between its two counties. See, App. A, below.

(2) The Manchester - Buxton Trust appears in various returns under Cheshire, Lancashire, and Derbyshire. Roads in the Walsall district crossing Staffordshire, Warwickshire and Worcestershire also caused considerable difficulty, among them the Bromsgrove - Birmingham, and Spernall Ash - Birmingham Roads.

(3) P.P. 1824, XX, H.o.L. 1833, Vol. X, B.M.

(4) P.P. 1820, IV.

returns of 1822-23 re-appears in the 1829 returns as the Hulme - Stretford Road. The Moor Lane Road of 1822-23 in the same county re-emerges as the Bolton - Westhoughton Road in 1829.(1) However, the majority of roads changing names and crossing several counties have been successfully identified. Thereafter they have been consistently filed under the county with the most returns or the greatest mileage of the road concerned. Nevertheless where the 1820 returns(2) did not give many details and knowledge of a locality proved insufficient some returns have remained unscrambled.

A further problem was caused by trusts straddling several counties which made use of the confusion of responsibility to make no returns at all. The Bowes - Sunderland Bridge Road did not make any returns according to parliamentary sources to York, Durham or Northumberland.(3) Generally this tendency was corrected through pressures by the clerk of the peace, by mortgage holders or carriers.(4)

Some trusts were included in the 1828-9 returns(5) but not in 1823(6) because they were established in the interval. This emerges

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(1) P.P. 1824, XX. H.o.L. 1833, Vol. X B.M.
(2) P.P. 1820, IV.
(3) P.P. 1820, IV., P.P. 1824, XX. 1833 Vol. X B.M.
(4) It is not clear whether the clerks of the peace statements were available for examination by the public in the 1820's. In the course of this study many bundles of statements were untied which were obviously untouched since fastened. This makes availability to the public unlikely.
(5) P.P., H.o.L. 1833, Vol. X., B.M.
(6) P.P. 1824, XX.

particularly clearly where the clerk of the peace kept a register of statements enrolled. In Somerset the Wedmore turnpike road was started in 1828 with a net expenditure of £3,544 and the Higham and Ashcott Road started in 1826 with a net expenditure of £1,544.(1)

Wherever averages have been taken for the periods 1822-32 from parliamentary returns dates of origin can usually be ascertained as well. It is therefore possible to resolve most discrepancies due to differing areas of administration or to averaging. Examples of the system of forming aggregates from the 1822-23 and 1828-29 parliamentary sources are given in the following Tables VI, VII and VIII for Durham, Westmoreland and Wiltshire respectively.(2) Counties with a small number of turnpikes have usually been included in the text, but examples of industrialized counties with large numbers of trusts such as Staffordshire, or the West Riding, can be found in full in Appendix A, below.

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(1) See App. A below. So.R.O., Q.5.
(2) P.P. 1820, IV. P.P. 1824, XX. P.P. 1833, Vol. X, B.M.

TABLE VI

1820's AVERAGED RETURNS - Durham

Year	1793 Cockerton Bridge - Staindrop (11 miles) £	1751 Darlington - WestAuckland (19 miles) £	1747 Stockton - Barnard Castle (28 miles) £	1745 Boroughbridge - Durham (53 miles) £
1822-23	390	1,768	1,355	4,938
1823-24	383	1,243	1,143	4,358
1824-25	383	1,243	1,143	4,358
1825-26	383	1,243	1,143	4,358
1826-27	383	1,243	1,143	4,358
1827-28	383	1,243	1,143	4,358
1828-29	377	717	931	3,878
1829-30	383	1,243	1,143	4,358
1830-31	383	1,243	1,143	4,358
1831-32	383	1,243	1,143	4,358
1832-33	383	1,243	1,143	4,358

Year	1747 Durham - Tyne Bridge (14 miles) £	1792 Eggleston Coal Road (10 miles) £	1747 Catterick Bridge - Durham (42 miles) £	1796 Wearmouth Bridge Tyne Bridge (16 miles) £
1822-23	2,568	338	788	826
1823-24	2,692	500	1,041	973
1824-25	2,692	500	1,041	973
1825-26	2,692	500	1,041	973
1826-27	2,692	500	1,041	973
1827-28	2,692	500	1,041	973
1828-29	2,816	662	1,295	1,120
1829-30	2,692	500	1,041	973
1830-31	2,692	500	1,041	973
1831-32	2,692	500	1,041	973
1832-33	2,692	500	1,041	973

TABLE VI (cont'd.)

Year	1747 Sunderland - Durham Road (13 miles) £	1815 Edmund Byers Road (9 miles) £	1789 Bishopwearmouth - Norton (26 miles) £
1822-23	698	216	632
1823-24	488	188	642
1824-25	488	188	642
1825-26	488	188	642
1826-27	488	188	642
1827-28	488	188	642
1828-29	278	161	651
1829-30	488	188	642
1830-31	488	188	642
1831-32	488	188	642
1832-33	488	188	642

Year	1810 Durham - Shotley Bridge (15 miles) £	1793 Lotley Hill (61 miles) £	1760 Berwick - North Durham (57 miles) £
1822-23	131	1,789	5,892
1823-24	114	1,789	5,892
1824-25	114	1,789	5,892
1825-26	114	1,789	5,892
1826-27	114	1,789	5,892
1827-28	114	1,789	5,892
1828-29	98	1,789	5,892
1829-30	114	1,789	5,892
1830-31	114	1,789	5,892
1831-32	114	1,789	5,892
1832-33	114	1,789	5,892

TABLE VII

AVERAGED RETURNS - WESTMORELAND

Year	1819 Ireby - Milnthorpe Rd. (22 miles) £	1762 Kirkby Stephen- High Lane Head (62 miles) £	1753 Brough - Eamont Bridge (19 miles) £	1743 Bowes - Brough (12 miles) £
1822-23	309	400	881	346
1823-28	310	371	1,115	279
1828-29	312	342	1,348	212
1829-33	310	371	1,115	279

Year	1753 Heronsyke - Eamont Bridge (30 miles) £	1762 Ambleside Rd. (24 miles) £	1818 Ulverstone - Carnforth Rd. (22 miles) £	1759 MILNTHORPE RD. (10 miles) £
1822-23	2,704	214	403	519
1823-28	2,086	421	373	390
1828-29	1,469	628	343	261
1829-33	2,086	421	373	390

Year	1761 Appleby - Kendal Road (36 miles) £	Maiden Castle - Kaber Cross (9 miles) £
1822-23	165	375
1823-28	334	376
1828-29	503	376
1829-33	334	376

TABLE VIII

AVERAGED RETURNS - WILTSHIRE

Year	1797 Devizes Consol Roads (26 miles) £	1792 Lechlade - Swindon (10 miles) £	1791 Swindon - Blumsden (4 miles) £	1727 Chippenham Trust (19 miles) £	1752 Bradford Rd. (9 miles) £
1822-23	2,536	205	118	2,043	690
1823-28	2,980	198	106	1,895	571
1828-29	3,425	191	94	1,747	452
1829-33	2,980	198	106	1,895	571

Year	1727 Warminster Rd. (27 miles) £	1758 Westbury Rd. (20 miles) £	1757 Corsham - Lacock Rds. (22 miles) £	1757 Brickers Barn Rd. (7 miles) £
1822-23	1,804	790	737	450
1823-28	1,757	690	1,272	329
1828-29	1,710	591	1,806	209
1829-33	1,757	690	1,272	329

Year	Shipton Moyne Rd. (7 miles) £	1799 Beckhampton Rd. (22 miles) £	1761 Fisherton - Redhome (49 miles) £	1762 Everley - Marlborough (12 miles) £	1773 Calne Rd (8 miles) £
1822-23	64	1,087	1,792	367	466
1823-24	89	1,230	1,762	354	903
1824-28	89	1,207	1,762	354	777
1828-29	114	1,305	1,733	340	961
1829-33	89	1,207	1,762	354	777

TABLE VIII (cont'd)

Year	1820 Farringdon - Acton (40 miles) £	1809 Malmesbury Rds. 3rd. Dis. (18 miles) £	1791 Calne - Hillmarton (6 miles) £	1752 Trowbridge Rd. (30 miles) £
1822-23	888	476	116	3,771
1823-28	774	404	116	2,836
1828-29	660	332	116	1,901
1829-33	774	404	116	2,836

Year	1762 Swindon - Marlborough (11 miles) £	1750 Malmesbury Rd. 1st. Dis. (16 miles) £	1762 Holt Road (13 miles) £	1726 Froxfield - Marlborough (7 miles) £	1791 Swindon - Malford (16 miles) £
1822-23	140	475	40	1,940	353
1823-28	118	459	34	1,399	418
1828-29	97	442	29	858	483
1829-33	118	459	34	1,399	418

Year	1751 Lavington Rd. (21 miles) £	1809 Wootten Bassett Road (10 miles) £	1753 Sarum - Ealing Road (41 miles) £	1812 Black Dog Road (19 miles) £
1822-23	115	20	2,858	2,305
1823-28	115	20	2,937	2,305
1828-29	115	20	3,016	2,305
1829-33	115	20	2,937	2,305

TABLE VIII (cont'd.)

Year	1824 Marlborough - Conte (8 miles) £	1757 Melksham Rd. (10 miles) £	1762 Swindon - Hungerford (14 miles) £	1762 Amesbury Road (50 miles) £
1822-23		1,031	493	683
1823-28		1,031	493	683
1828-29	50	1,031	493	683
1829-33	50	1,031	493	683

All that remained to be done with the 1822-32 returns was to total them by counties and then nationally. With the addition of the post-1833 national statistics,(1) figures of net expenditure were then available from 1822-1856. There is a slight hiatus in the year 1832-33 and the figures for that year are not reliable. This was inevitable due to the standardization of the trust financial year to a norm of January-December.(2) The total county returns for each year from 1822-32 are given below in Table IX. Those marked with an asterisk were derived from examination of statements enrolled with the clerks of the peace. The remainder were aggregated from parliamentary material.

The national turnpike statistics so constructed are given in Table X with the post-1833 figures continuing the series.(3)

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(1) P.P. 1836, XLVII, 297.
P.P. 1837, LI, 291.
P.P. 1837-8, XLVI, 97.
P.P. 1839, XLIV, 299.
P.P. 1840, XLV, 391.
P.P. 1841, XXVII, 83.
P.P. 1842, XXXVII, 247.
P.P. 1843, XLVIII, 313.
P.P. 1844, XLII, 343.
P.P. 1845, XLI, 447.
P.P. 1846, XL, 409
P.P. 1847, XLIV, 421.
P.P. 1847-8, LI, 359.
P.P. 1850, XLIX, 379.
P.P. 1851, XLVIII, 325.
P.P. 1852, XLIV, 305.
P.P. 1852-3, XLVII, 335.
P.P. 1854, LXIV, 1, 95.
P.P. 1854-5, XLIX, 1.
P.P. 1856, LVIII, 1.
P.P. 1857-8, LII, 587.
p.p. 1859, XXIII, 345.

(2) See above, p.35.

(3) Details of national turnpike expenditure beyond 1856 are available, but these were not investigated in the present study.

TABLE IX. TOTAL COUNTY RETURNS, 1822-33

Year	Beds.*	Berks.*	Bucks.*	Cambs.*	Cheshire	Cornw'l.	Cumbl'd.
1822-23	10,559	16,043	9,526	8,968	27,885	8,873	5,925
1823-24	7,377	13,766	9,491	9,087	28,069	12,231	8,119
1824-25	9,282	16,757	10,786	10,129	26,749	12,231	8,119
1825-26	13,083	17,830	11,914	11,658	26,749	12,231	8,119
1826-27	10,099	18,489	13,413	9,513	26,749	12,231	8,119
1827-28	9,420	15,294	15,103	10,191	26,749	12,231	8,119
1828-29	10,255	15,524	11,847	8,933	24,278	15,717	10,314
1829-30	14,611	15,486	8,994	9,925	26,749	12,231	8,119
1830-31	15,234	14,920	8,341	10,787	26,749	12,231	8,119
1831-32	12,550	16,649	11,257	10,382	26,749	12,231	8,119
1832-33	11,248	18,432	9,534	10,158	26,749	12,231	8,119

Year	Derbys.*	Devon*	Dorset*	Durham	Essex*	Glos.	Hamps.
1822-23	13,786	28,865	13,226	22,329	14,974	65,902	23,808
1823-24	14,345	33,693	11,669	21,446	15,133	65,354	27,001
1824-25	16,202	35,971	23,222	21,446	16,135	65,354	26,899
1825-26	22,208	25,050	20,133	21,446	14,053	65,354	26,899
1826-27	16,719	33,729	13,475	21,446	15,023	65,354	26,899
1827-28	17,545	33,508	17,053	21,446	14,369	65,354	26,899
1828-29	16,320	31,815	19,755	20,665	14,612	64,810	29,895
1829-30	15,648	32,350	20,799	21,446	18,529	65,354	26,899
1830-31	17,058	32,350	21,719	21,446	20,069	65,354	26,899
1831-32	15,206	32,350	22,314	21,446	15,510	65,354	26,899
2832-33	14,394	32,350	18,970	21,446	15,425	65,354	26,899

* All these counties have been totalled for each year from the returns file with the clerks of the peace. The remainder have been averaged from parliamentary returns for 1822-23 and 1828-29.

TABLE IX (cont'd)

Year	Heref'd.	Herts.*	Huntd'n.	Kent*	Lancs.	Leics.	Lincs.
1822-23	14,081	17,187	9,351	44,669	80,996	20,636	15,208
1823-24	15,103	21,697	9,232	44,157	81,540	15,783	16,576
1824-25	15,103	21,466	9,232	46,791	81,308	16,822	18,738
1825-26	15,103	23,148	9,232	53,807	81,308	16,822	19,954
1826-27	15,103	23,268	9,232	47,431	81,308	16,822	18,636
1827-28	15,103	20,339	9,232	50,040	81,308	16,822	18,497
1828-29	16,127	20,122	9,114	52,243	81,397	14,046	18,798
1829-30	15,103	21,830	9,232	51,016	81,308	16,822	17,474
1830-31	15,103	19,991	9,232	51,496	81,308	16,822	18,725
1831-32	15,103	22,647	9,232	60,740	81,308	16,822	20,542
1832-33	15,103	18,986	9,232	57,364	81,308	16,822	19,193

Year	Mdd'x.*	Norfolk	North-ants*	Northumb-erland	Notts.*	Oxon.	Rutland
1822-23	93,412	4,295	29,233	12,956	16,972	13,563	468
1823-24	89,037	4,411	33,009	11,506	14,049	13,474	652
1824-25	93,867	4,368	31,612	11,291	22,020	13,474	652
1825-26	98,018	4,368	28,620	11,291	14,914	13,474	652
1826-27	94,150	4,368	28,939	11,291	13,911	13,475	652
1827-28	106,785	4,368	31,174	11,291	13,268	13,474	652
1828-29	98,367	4,398	29,606	9,412	16,404	13,388	836
1829-30	100,929	4,368	29,009	11,291	12,930	13,474	652
1830-31	93,283	4,368	28,568	11,291	11,241	13,474	652
1831-32	91,208	4,368	29,001	11,291	11,1 01	13,474	652
1832-33	91,436	4,368	30,556	11,291	10,472	13,474	652

TABLE IX (cont'd)

Year	Salop.	Somerset*	Staffs.*	Suffolk	Surrey*	Sussex	Warwicks.*
1822-23	16,616	44,653	42,426	12,277	41,191	30,520	18,014
1823-24	15,080	48,304	47,532	12,979	56,136	31,611	19,638
1824-25	16,003	54,870	42,116	12,475	60,719	31,611	23,778
1825-26	16,003	57,823	45,067	12,475	72,213	31,611	28,849
1826-27	16,003	53,720	43,399	12,475	56,945	31,611	29,353
1827-28	16,003	58,087	41,229	12,475	56,058	31,611	24,244
1828-29	16,314	66,806	53,283	12,170	49,689	32,709	22,799
1829-30	16,003	61,807	41,395	12,475	56,136	31,611	20,647
1830-31	16,003	58,511	44,087	12,475	56,136	31,611	22,649
1831-32	16,003	51,386	47,447	12,475	56,136	31,611	25,056
1832-33	16,003	57,698	41,200	12,475	56,136	31,611	23,136

Year	West-morel'd.	Wilts.	Worcs.	North Riding	East Riding	West Riding*	Net TOTAL
1822-23	6,316	28,903	20,847	9,132	6,399	85,500	982,682
1823-24	6,055	28,328	23,546	9,404	6,581	101,136	1,053,337
1824-25	6,055	28,179	23,546	9,404	6,581	109,112	1,110,475
1825-26	6,055	28,179	23,546	9,404	6,581	132,671	1,157,915
1826-27	6,055	28,179	23,546	9,404	6,581	115,411	1,102,526
1827-28	6,055	28,179	23,546	9,404	6,581	102,872	1,101,978
1828-29	5,794	27,309	26,248	9,678	6,766	111,948	1,120,511
1829-30	6,055	28,179	23,546	9,404	6,581	102,944	1,099,361
1830-31	6,055	28,179	23,546	9,404	6,581	100,066	1,092,133
1831-32	6,055	28,179	23,546	9,404	6,581	108,959	1,107,043
1832-33	6,055	28,179	23,546	9,404	6,581	125,564	1,109,154

TABLE X

ENGLISH QUASI-NET INVESTMENT IN TURNPIKES, 1822-56

Date	Total	Date	Total
1822-23	982,682	1839-40	1,139,517
1823-24	1,053,337	1840-41	1,047,491
1824-25	1,110,475	1841-42	1,036,740
1825-26	1,157,915	1842-43	955,045
1826-27	1,102,526	1843-44	899,574
1827-28	1,101,978	1844-45	866,704
1828-29	1,120,511	1845-46	856,453
1829-30	1,099,361	1846-47	841,904
1830-31	1,092,133	1847-48	799,396
1831-32	1,107,043	1848-49	775,933
1832-33	1,109,154	1849-50	743,660
1833-34	1,128,380	1850-51	729,407
1834-35	1,163,355	1851-52	734,510
1835-36	1,208,037	1852-53	767,572
1836-37	1,262,971	1853-54	788,035
1837-38	1,143,512	1854-55	754,366
1838-39	1,140,854	1855-56	773,099

CHAPTER 4.

INVESTMENT IN TURNPIKES: SAMPLING 1750-1822

The basis of the 1750-1820 estimates of English turnpike net expenditure consists therefore of four sets of data. Firstly, the date of origin of every trust. Secondly, the mileage in the 1820's of every trust. Thirdly, detailed expenditure figures for each trust in the decade 1822-1832. Fourthly, detailed 1750-1822 figures from some 55 trusts representing an average of 572 miles of road in 28 trusts each year.

Ascertaining the dates of origin posed difficult problems because many roads were often known under several names and therefore the most thorough knowledge of individual localities was required to identify them. The Gloucestershire Hand and Post to Dancy's Fancy Road or the Foss and Cross Road are merely two examples from several hundreds which caused difficulty.(1) However, full use was made of detailed local turnpike studies wherever possible and the majority of roads were unequivocally located in the 1820, 1824, and 1833 returns.(2)

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(1) If it is assumed that fifty per cent of these have accurate dates of origin, this leaves 102 roads plus 40 unknown as dubious; Five sixths of the total have therefore had their dates of origin and mileages ascertained with a reasonable degree of accuracy. The full extent of the discrepancy between Albert's dates of origin and those of the present investigation are set out in full in columns one and two of Table XXXIX, App. F, below.

(2) P.P. 1820, IV. P.P. 1824, X. P.P. 1833, H.o.L. Vol. X, B.M.

The mileage of each road was detailed in both the return of 1820 and that of 1833 but where the two conflicted the latter was used because the accompanying report stated the returns of that year to be soundly based on 'admeasurement', whereas the 1820 distance returns were defined as founded on 'computation'.(1) The 1833 returns themselves were random checked against the findings of later parliamentary enquiries(2) and were found in all cases to be correct. It was assumed that trust mileages had remained constant over the period 1750-1822 and that expenditure patterns similar in the 1820's did not change from 1750. These assumptions are justified by the results of the detailed examination of the 55 trusts and by such detailed studies of individual trusts as those of Maude,(3) Payne,(4) Clark,(5) and Tupling,(6) apart from the more general work by Albert. All the available evidence shows that the mileage of individual trusts did not decrease significantly in the period 1750-1822. Engineers such as Telford only indulged generally in major changes of routes after 1820, but this remained exceptional and was often only undertaken with government assistance. Such activities were usually unpopular with trustees because they were very expensive and frequently antagonized other vested interests. For example, towns did not like to be by-passed.(7) Furthermore, there were few examples of

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(1) P.P. H.o.L. 1833, Vol. X, B.M.
(2) P.P. 1847-8, LX 413.
(3) Hockerill Highway, op. cit.
(4) Bermondsey - Rotherhithe and Deptford Trust, op. cit.
(5) Islington Trust, op. cit.
(6) Lancashire Turnpikes, op. cit.
(7) Webb's, King's Highway, op. cit. p.179.

amalgamation of roads. A financially healthy trust did not generally wish to encumber itself with the liability of a road deeply in debt and possibly in arrears with interest payments. Moreover, in the 18th century the problems of large-scale management[1] gave rise to a contrary divisive tendency under which a big mileage trust would later be split into several trusts or at the very least de-centralized into divisions.[2] In these circumstances it is clear that the forces of consolidation and rationalization were relatively weak.

Nor is the assumption that an expenditure pattern remained constant over seventy-two years, so dubious as it may appear at first sight. Due allowance is naturally made for the growth of the economy and consequent increase in traffic and tolls during this period. In modern terms the assumption being made is that a 'C' class road did not become an 'A' road; that is, that the nature of a road's role in a locality stayed unchanged, not that the road system as a whole remained unimproved. The weight of evidence on the turnpike system supports this, because the initial turnpiking of a section of parish highway was in itself the recognition of this change of role. The performance of a road in terms of tolls thereafter showed whether the role really had altered and the road had become a principal artery or merely remained an unimportant by-road. If the latter was the case a turnpike act

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(1) S. Pollard, Genesis of Modern Management, op. cit. pp. 51-63.
(2) A. Cossons, "Warwickshire Turnpikes", op. cit. p.59.

would be permitted to lapse on occasion.[1] The density of traffic was a function of the national importance of a route and of local economic development, which were generally the principal determinants of initial turnpiking. These factors are clearly reflected in the level of a trust's expenditure in the 1822-32 returns. There are discrepancies due to renewal acts, improvements, or new branches of road, but an examination of the county returns in Tables III, IV, V, and in Appendix A, shows that the routine level of net payments usually emerges over the decade. Thus in Bedfordshire in Table III, the Puddle Hill Road with a general level of £1,500 a year for four miles, was a more important road than the Riseley Road with a routine outlay of £200 for ten miles. The Bedford - Willington and Bedford - Woburn Roads, both spent in the region of £400 per annum on 14 and 15 miles respectively and were of a similar order of importance, whereas the Hockcliffe - Woburn Road with an outlay of around £25,000 for 13 miles was more important. In Table IV for Essex, the Epping and Ongar Road, the Essex and Hertfordshire Road, and the Middlesex and Essex Road were of much greater importance in terms of expenditure and mileage than the Rochford or Barking Roads. In Warwickshire, in Table V, the Evesham - Alchester, Ruby - Hinckley, Coventry - Fillongley, and Dunchurch - Southam are all main roads compared with the Stratford - Bromsgrove, Stratford - Long Compton, or Birmingham - Shenstone-Bassett Roads. Similar

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(1) See below, App. F.

comparisons are clear for other counties, and are further confirmed by examination of the first edition of the ordnance survey and other contemporary maps of localities in addition to road guides[1] of the period and later local studies. On occasion it is true, the outlay of a major trust on maintenance might fall off because so much had been borrowed that a large proportion of revenue was absorbed by interest, but in the period under review this situation was generally rectified by acquiring another act to raise the toll rates, either on renewal or before.[2]

Since the available evidence fully supports the assumption of the constancy of turnpike mileages and expenditure patterns over the period 1750-1822, the roads were classified into their mileage categories in multiples of 5, 10, 15, 20, etc., up to 55. The few trusts of greater mileage were dealt with individually.[3] Each mileage classification was then subdivided into expenditure categories of £250, £500, £1,000, £1,500, £2,000 and £2,500 per annum, any road spending more than this again being treated individually.

The date of origin of each turnpike was then plotted on a 1750-1822 time-scale within the mileage and expenditure category it fitted most closely. The outlay of each road for this purpose was

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(1) Such as Paterson's, or Owen's contemporary road books.
(2) See Maud, op. cit., for a good example, pp. 33-36.
(3) The roads had already been rounded into miles from the parliamentary returns on the basis of anything over four furlongs being taken to the nearest mileage unit above, and anything under this figure being taken to the nearest unit below. Any road under five miles was put into the five miles class, but for the rest the rule was to fit a road to the nearest multiple.

taken as its average over the decade 1822-1832 to allow for any distortions due to abnormally high payments for new construction and so forth in any particular year. Roads almost exactly between two expenditure classes were entered alternately in the classifications above and below. Outlay patterns were then formulated for each expenditure category for the period 1750-1822 on the basis of the known sample roads. These showed that in 1750 a trust would generally be spending one fifth of its ultimate 1822-32 figure, although there was some variation between categories. Thus a turnpike of ten miles spending £500 in the 1820's spent £100 per annum in 1750-70, whereas a road of the same mileage spending £2,000 per annum in the 1820's would be spending £500 per annum or one quarter of this in 1750. Similarly, a trust of 15 miles spending £1,500 per annum in the 1820's was found to be spending only £250 per annum or one sixth in 1750. All of this is confirmed by examination of the net expenditure of the sample roads investigated as set out in Table XIV and Appendix B. In the case of the 25 roads in this sample for which figures were available from the dates of the acts of origin, it appears that each road spent in its first year an average of three times its subsequent outlay. The factor of three was therefore taken as the mean to give the outlay of each road in its year of origin by multiplying from the routine expenditure of the five following years. Thus a road spending £250 per annum in 1820, but £50 in 1755 could be assumed to lay out £150 in its year of origin in putting the parish highway into a better state of repair. But it could then be expected to fall to a routine level of maintenance expenditure

dependant on its toll revenue, in turn a function of the road's importance.

The general growth in expenditure is most marked in the 1780's and 1800's according to the roads examined in detail. But although upgrading of a road's expenditure has been spread throughout these periods, strict attention has also been paid to deviations from this in individual patterns of expenditure. Typically, therefore, there were 71 roads in the £250/five mile class in 1820 which had been established at precisely known dates in the previous 72 years. The expenditure pattern for this class showed that it would have been laying out £50 in 1750, £100 in 1780, and £250 in 1800 on maintenance each year. In 1755 there were four of this type of road spending a total of £200 in that year. In 1763, 11 roads in this category laid out a total of £550. The following year another road was established making an additional outlay of £50 x three to be added to the £550 to give a total of £700 for that year. By 1780 when routine outlay was upgraded to £100 per annum on the basis of the outlay pattern from the sample roads, there were 29 roads with a total outlay of £2,900. In 1799 when normal outlay became £250 per annum there were 43 roads with a total of £10,250 and a new road, £250 x three making £11,000 in all. By 1821 there were 71 roads spending a total of £17,750 per annum.

In the category of a road of ten miles spending £2,000 per annum by 1820 there were by contrast only six roads in that year. The first at a level of routine maintenance of £250 per annum had been established in 1751. The expenditure pattern for this type of road showed an increase in 1770 when outlay was raised to £500 per annum.

The next road was set up in 1780 and others followed in 1786, 1790, and 1793. By 1798 five roads were therefore spending a total of £2,500 per annum, but this doubled in the following year in accordance with the outlay pattern. It rose again to £1,500 a year in 1803 and then to £2,000 in 1807. The setting up of another road in 1818 brought the total to six roads spending £12,000.

In the category of 20 miles with an outlay of £500 in the 1820's, there were two roads in 1750 spending £100 each. By 1760 there were eight at £100 per annum and a new one at £300 for that year. In 1770 there were 17 roads at £100 per annum plus £600 for two new roads, and in 1780 there were 21 roads laying out a total of £2,100 on maintenance. An increase in expenditure was indicated by the pattern for this type of road in the 1780's and this was shifted to 1783 in accordance with the system of smoothing such increases by placing them one year ahead of the last class of road. For it is clear from the sample that such rises in expenditure were spread out and not confined to particular years, although there might be a sharp increase for an individual road if a renewal act had granted higher toll rates and thus greater revenue. In 1783 therefore, there were 21 roads of a mileage/outlay category 20/£500 spending £250 per annum making £5,250 for that year. By 1800 this had increased by one road to £5,500 which geared up to £500 per annum for 25 roads in 1818 giving a total of £12,500. The establishment of a new road in 1819 gave £12,500 plus £500 x three or £14,000 for that year, but this relapsed to £13,000 for 26 roads in 1820.

All of the other mileage/expenditure classifications were

dealt with in the same manner, although trusts above 55 miles or spending more than £2,500 were handled individually with due regard for the outlay pattern derived from such roads among the sample of 55. The categories were then formed into annual totals be adding across and these were totalled with the figures for the sample of 55 roads covered in depth. The composition of this detailed material specified in Table XI and to be found in Table XVII and Appendix B is summarized in Table XII below. Column one gives the mileage for which net outlay figures were derived from original ledgers in each year. Column two comprises the total spent by this mileage; column three demonstrates how many individual trusts were represented by these figures, and column four gives the possible total number of trusts in the sample in existance each year. Column five shows the average expenditure per mile derived by dividing column two by column one. Column six comprises the mileage of the sample roads for which figures of expenditure are missing from year to year, and column seven shows the number of trusts affected. Although the total number of trusts in column seven remains the same for several years, the changing mileage in column five demonstrates the different trusts making up the total in any one year.

The expenditure figures for the sample roads in column two were obtained by adding across all the original figures collected for each year, but because some journals were missing or destroyed for most roads, there were often omissions in the series. It was therefore necessary to form estimates of outlay for the sample roads with missing years in column six. Wherever the lost material covered a decade or

less, an average was taken from the nearest five years, on either side of a gap in a series where possible. If, as in the case of the Windsor Forest Road and one or two others,[1] the known figures spanned only a few years of a trust's life, then estimates were formulated on the basis of an 1820's mileage/expenditure pattern extrapolation, as for the majority of 'unknown' roads for which no 18th century figures were discovered.

Column one of Table XIII thus comprises the estimated annual total from the majority of 'unknown' roads; column two gives the averaged and estimated total for the roads with missing years from the sample of 55 covered in depth, and column three is the 'known' outlay on the roads in detail from column two of Table XII. Column four of Table XIII is therefore the grand total of net expenditure in England for the period 1750-1822.

Perhaps the most significant aspect of the English net outlay figures is the high percentage of the total represented by the sample roads in Table XIII. Thus, in 1750 it appears that 13 roads, the total sample for that year in column four of Table XII, spent £8,884 plus £4,657, or £13,541 of a total of £52,291, or virtually one quarter leaving the remaining £38,750 to be spread amongst 84 roads. The explanation of this concentration of expenditure that the sample consists of roads around London which incurred high expenditure compared to the average outlay of roads in more distant parts of the country. A

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(1) See App. B.

glance at Table XX and Appendix B for roads in Middlesex, Essex and Hertfordshire confirms this, but it is set out more conveniently in Table XIV below. This Table divides the sample of 55 roads into those in the vicinity of London, urban industrial provincial roads, and rural provincial roads. The distinction is as arbitrary as such decisions remain today, but the roads thus classified are set out on the first page of Table XIV. This Table shows that roads in the vicinity of London counted for the whole of the 1750 known sample expenditure of column three of Table XIV. In 1760 four 'known' London roads accounted for half the sample known expenditure, or about one twentieth of the total, in 1770 eight 'known' London roads totalled £12,005 of an English total of £153,700 for that year, leaving the remainder for 465 roads. In 1780, seven London roads gave £13,821 of an English total of £213,381 and in 1800, 11 London roads gave £31,033 of £467,196. In that year therefore, 11 roads out of 668, or approximately one sixtieth of the total number, accounted for one fiftieth of the total outlay. However, Table XIV illustrates this point even more strongly in terms of mileage and average expenditure per mile. In each column in Table XIV the figures above for each year represent the real 'known' expenditure derived from the actual account books of the trusts concerned; the figures below in each year show the mileage of these trusts and the third figure gives the average outlay per mile of each category. It is clear that the average expenditure per mile figures from the sample therefore, yield a general average per mile that is severely London dominated.

Column one of Table XV demonstrates the total mileage of the 'unknown' roads for which no 18th century expenditure figures were obtained. This was derived by adding these roads across each year on the time scale/mileage-expenditure category chart. Column four gives the average expenditure per mile from the sample as in Table XII column five and Table XIV column four. The total outlay of the 'unknown' roads which is the product of multiplying column three by column four of Table XV appears in column five. Column six gives the total expenditure for the sample roads which is simply columns two and three of Table XIII added together. Column seven is the total net turnpike expenditure of column five plus column six, and columneight comprises the mileage of column one of Table XV added to the total sample mileage from column eight of Table XII.

The apparent precision of the total expenditure figures gained through the extrapolation method in Table XIII and by the averaging method of Table XV is equally misleading. Examination of both of the Tables shows the impression of exactitude to be due to the inclusion of the 'known' sample road material, but the estimated figures in both cases convey a better impression of the true crudity of the total net outlay series.

In view of the London domination of the sample discussed above, it is to be expected that the total estimated turnpike expenditure of Table XV will be too high since the Metropolitan influence is greatly enhanced by the averaging method employed. On the other hand, despite an apparent mixture of over simplification and complexity, the 1820's

expenditure pattern extrapolation method of Table XIII does allow for the London dominance of the sample in breaking it up into mileage expenditure patterns. Admittedly, comparison with the post-1822 figures in Table X might be interpreted as showing that the figures for 1820-21 in Table XIII are £100,000 too low by the extrapolation method. Equally, it would seem that the mileage averaging system yields totals £300,000 or so too high. Both estimates are capable of improvement as more original turnpike material comes to light and is investigated, but at least they do give some idea of the order of magnitude involved in the development of the turnpike system. However, since the extrapolation method appears to yield a result further in accordance with the more soundly based post-1822 figures, it was decided that the extrapolated series should be used for the purposes of this study.

Table XVI gathers all the estimates together to give a series of English Quasi-net investment(1) in turnpikes in the period 1750-1850. From 1833 onwards there are reliable detailed breakdowns of these figures available in the categories set out below in Table XVII.(2) For 1828-29(3) there are also reliable national figures available as a useful check on the system of estimates used for the

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(1) Quasi-net investment in this context as defined above, p.7 Fishlow has been followed in terming this 'Quasi-net' to distinguish it from pure. op. cit. p.357.
(2) Derived from P.P. as on p.97 below.
(3) P.P. H.o.L., 1833, Vol. X, B.M.

1820's. The items for these figures are also given in Table XVII although they differ slightly from the 1833 classification. It has only been possible to achieve any analysis of the net total for 1750-1828 by extrapolating backwards. The years 1833-39 have been used to average a base for this purpose, since the railways were already beginning to influence the turnpike returns by 1840.

TABLE XI

NAMES OF ROADS WITH ORIGINAL OUTLAY FIGURES, 1750-1822

	Dates covered by surviving material	Mileage	Dates of origin
BEDFORDSHIRE			
Biggleswade - Alconbury Hill Road	1780-1822	20	1725
Hitchin - Bedford Road	1796-1812	25	1757
BERKSHIRE			
Windsor Forest Road	1759-1768	17	1759
Hungerford - Sousley Water		22	1772
Wallingford Road	1801-1821	26	1752
BUCKINGHAMSHIRE			
Wendover - Buckingham Road	1799-1818	21	1795
CAMBRIDGESHIRE			
Knessworth - Caxton Road	1780-1815	15	1769
CORNWALL			
Helston Road	1764-1809	22	1760
DERBYSHIRE			
Duffield - Wirksworth	1756-1766	9	1756
DEVON			
Exeter Road	1815-1820	155	1753
DORSET			
Beaminster Road	1754-1811	24	1754
ESSEX			
Epping and Ongar Road	1783-1802	20	1724
Essex and Hertfordshire Road	1792-1820	27	1744
HAMPSHIRE			
Winchester - Southampton Road	1802-1819	23	1762
Stockbridge - Winchester Road	1773-1820	8	1758

TABLE XI (cont'd.)

HERTFORDSHIRE			
Sparrows Herne Road	1764-1814	25	1762
St. Albans Road	1759-1819	11	1715
Stevenage - Biggleswade Road	1802-1816	10	1720
Welwyn Road	1763-1820	22	1730
KENT			
Deal - Sandwich Road	1797-1820	14	1797
Kipping Cross - Willesley Green Road	1765-1822	11	1765
Kipping Cross - Flimwell Road	1795-1820	12	1762
New Cross Road	1765-1821	36	1765
Stockerhead - Chelham Road	1809-1821	7	1809
Tonbridge - Maidstone Road	1765-1821	14	1765
Wadhurst - Farleigh Road	1765-1788	12	1765
LANCASHIRE			
Manchester - Wilmslow Road	1753-1820	11	1753
LEICESTERSHIRE			
Harborough - Loughborough Road	1784-1802	26	1726
Hinckley - Lutterworth Road	1763-1812	10	1762
Leicester - Wanlip Road	1772-1819	2	1772
LINCOLNSHIRE			
Lincoln Heath - Peterborough Road (South)	1761-1820	15	1756
MIDDLESEX			
Edgeware Road	1750-1810	10	1712
Islington Road	1750-1771, 1780-1819	20	1717
Kensington Road	1772-1805	17	1717
Marylebone Road	1750-1813	4	1721
NORTHAMPTONSHIRE			
Old Stratford - Northampton Road	1775-1800	11	1739
Stamford - Kettering Road	1794-1820	21	1794
NOTTINGHAMSHIRE			
Leadenham Road	1759-1820	34	1759

TABLE XI (cont'd.)

SOMERSETSHIRE			
Taunton Road	1754-1811	79	1754
Wells Road	1753-1816	37	1753
Yeovil Road	1777-1819	25	1753
STAFFORDSHIRE			
Cheadle Road, Huntby District	1762-1804	26	1762
SURREY			
Reigate Road	1761-1814	31	1755
WARWICKSHIRE			
Banbury - Lutterworth Road	1767-1806	52	1765
Stratford - Long Compton Road	1784-1821	20	1730
YORKSHIRE			
East Riding			
York - Garrowby Road	1765-1800	18	1765
West Riding			
Boroughbridge - Ripon Road	1752-1813	10	1752
Harrogate - Hutton Moor Road	1752-1813	20	1752
Huddersfield - Penistone Road	1777-1814	10	1777
Knaresborough - Pateley Bridge Road	1759-1820	10	1759
Leeds - Harrogate Road	1796-1802	15	1752
Ripon - Pateley Bridge Road	1756-1821	11	1756
Skipton - Knaresborough Road	1777-1821	25	1777
York - Tadcaster Road	1816-1821	17	1751
Wakefield - Leeds Road	1758-1820	8	1758

TABLE XII

BREAKDOWN OF SAMPLE FIGURES

Year	Mileage of Sample with Outlay Figs.	Exp. p.a. of Sample with Outlay Figures £	No. of Sample Rds. with Figs.	Total No. of Sample Rds. p.a.	Av. Sample Exp. p.a. per Mile £	Mileage of Sample Roads with Figures Missing	No. of Sample Rds. without Figs. p.a.	Total Mileage of Sample Roads
1750-51	34	4,657	3	13	136	184	10	218
1751-52	34	4,887	3	13	144	184	10	218
1752-53	64	6,862	5	17	107	225	12	289
1753-54	112	7,173	7	21	64	405	14	517
1754-55	215	8,536	9	23	39	405	14	620
1755-56	215	7,437	9	24	34	436	15	651
1756-57	235	14,497	10	27	61	451	17	686
1757-58	215	5,221	9	27	24	496	18	711
1758-59	243	10,660	12	30	44	484	18	727
1759-60	315	14,811	16	33	47	473	17	788
1760-61	315	10,071	16	34	32	495	16	810
1761-62	361	11,704	17	34	32	449	17	810
1762-63	397	11,345	20	39	29	509	19	906
1763-64	419	14,060	21	39	34	487	19	906
1764-65	446	11,965	23	39	27	460	16	906
1765-66	523	23,026	27	45	44	526	18	1,049
1766-67	523	22,298	26	45	43	526	19	1,049
1767-68	578	18,305	26	45	32	471	19	1,049
1768-69	557	15,420	26	45	28	492	19	1,049
1769-70	552	14,770	26	46	27	512	20	1,064
1770-71	552	17,747	26	46	32	512	20	1,064
1771-72	552	15,547	26	46	28	512	20	1,064
1772-73	541	16,400	27	48	30	537	21	1,078
1773-74	549	24,178	28	48	44	529	20	1,078
1774-75	562	20,086	28	48	36	514	20	1,078

TABLE XII (cont'd.)

Year	Mileage of Sample with Outlay Figs.	Exp. p.a. of Sample with Outlay Figures £	No. of Sample Rds. with Figs.	Total No. of Sample Rds. p.a.	Av. Sample Exp. p.a. per Mile £	Mileage of Sample Roads with Figures Missing	No. of Sample Rds. without Figs. p.a.	Total Mileage of Sample Roads
1775-76	587	19,138	30	48	33	485	18	1.078
1776-77	580	18,447	29	48	32	496	19	1,078
1777-78	561	21,597	30	50	38	562	20	1,123
1778-79	650	20,386	32	50	31	473	18	1,123
1779-80	650	19,273	32	50	30	443	18	1,123
1780-81	680	23,449	34	50	34	443	16	1,123
1781-82	680	24,297	34	50	36	443	16	1,123
1782-83	662	22,986	33	50	35	461	17	1,123
1783-84	682	25,131	34	50	37	441	16	1,123
1784-85	746	26,715	37	50	36	377	13	1,123
1785-86	747	27,844	37	50	37	376	13	1,123
1786-87	762	29,568	39	50	38	361	13	1,123
1787-88	762	29,218	37	50	38	361	13	1,123
1788-89	710	29,795	36	50	42	413	14	1,123
1789-90	698	32,618	35	50	47	425	15	1,123
1790-91	680	35,973	35	51	53	460	16	1,140
1791-92	718	36,879	37	51	51	422	14	1,140
1792-93	745	37,582	38	51	50	395	13	1,140
1793-94	745	38,893	38	51	52	395	13	1,140
1794-95	766	44,209	39	51	58	395	12	1,161
1795-96	744	43,162	40	53	58	438	13	1,182
1796-97	818	42,604	42	53	52	364	11	1,182
1797-98	832	45,635	42	54	55	364	12	1,196
1798-99	832	44,312	43	54	53	364	11	1,196
1799-1800	853	48,074	44	54	56	343	10	1,196
1800-01	843	54,720	48	54	65	353	11	1,196
1801-02	892	46,909	43	54	53	304	11	1,196
1802-03	891	50,913	43	54	57	305	11	1,196

TABLE XII (cont'd.)

Year	Mileage of Sample with Outlay Figs.	Exp. p.a. of Sample with Outlay Figures £	No. of Sample Rds. with Figs.	Total no. of Sample Roads p.a.	Av. Sample Exp. p.a. per Mile £	Mileage of Sample Roads with Figures Missing	No. of Sample Rds. without Figs. p.a.	Total Mileage of Sample Roads
1803-04	864	53,555	42	54	62	332	12	1,196
1804-05	864	57,704	42	54	67	332	12	1,196
1805-06	807	47,582	39	54	59	389	15	1,196
1806-07	780	51,316	39	54	66	418	15	1,196
1807-08	769	52,899	39	54	69	427	15	1,196
1808-09	769	56,021	39	54	73	427	15	1,196
1809-10	754	60,106	39	54	80	449	15	1,203
1810-11	732	58,349	38	55	80	471	16	1,203
1811-12	722	60,333	42	55	84	481	13	1,203
1812-13	594	57,554	34	55	97	609	21	1,203
1813-14	584	51,737	33	55	89	619	22	1,203
1814-15	550	52,597	30	55	96	653	25	1,203
1815-16	634	59,380	28	55	94	569	27	1,203
1816-17	651	60,666	29	55	93	552	26	1,203
1817-18	604	52,783	26	55	87	599	29	1,203
1818-19	626	53,258	27	55	85	577	28	1,203
1819-20	516	49,134	20	55	96	687	35	1,203
1820-21	422	32,652	13	55	77	781	42	1,203
1821-22	176	19,381	10	55	110	1,027	45	1,203

TABLE XIII

EXTRAPOLATED TOTALS

	Av. Exp. Unknown Roads		Av. Exp. Sample Roads		Known Exp. Sample	Total Expenditure
	£		£		£	£
1750-51	38,750	+	8,884	+	4,657	52,291
1751-52	50,400	+	8,884	+	4,887	64,171
1752-53	60,600	+	9,184	+	6,862	76,646
1753-54	64,300	+	16,223	+	7,173	87,696
1754-55	66,200	+	11,397	+	8,536	86,133
1755-56	73,450	+	11,397	+	7,437	92,284
1756-57	69,420	+	12,771	+	14,497	96,688
1757-58	72,000	+	13,373	+	5,221	90,594
1758-59	75,100	+	13,549	+	10,660	99,309
1759-60	80,450	+	12,448	+	14,811	107,709
1760-61	84,350	+	12,997	+	10,071	107,418
1761-62	82,250	+	12,173	+	11,704	106,127
1762-63	94,200	+	16,160	+	11,345	121,705
1763-64	89,400	+	12,992	+	14,060	116,452
1764-65	89,200	+	12,120	+	11,965	113,285
1765-66	104,800	+	12,320	+	23,026	140,146
1766-67	110,350	+	12,686	+	22,298	145,334
1767-68	103,300	+	12,580	+	18,305	134,185
1768-69	108,750	+	12,380	+	15,420	136,550
1769-70	106,900	+	14,477	+	14,770	136,147
1770-71	121,950	+	14,003	+	17,747	153,700
1771-72	126,650	+	14,003	+	15,547	156,200
1772-73	133,350	+	14,503	+	16,400	164,253
1773-74	133,600	+	14,207	+	24,178	171,985
1774-75	136,150	+	13,807	+	20,086	170,043
1775-76	111,400	+	14,207	+	19,138	144,745
1776-77	137,950	+	14,207	+	18,447	170,604
1777-78	167,800	+	14,654	+	21,597	204,051
1778-79	159,100	+	15,294	+	20,386	194,780
1779-80	172,800	+	15,294	+	19,273	207,367
1780-81	180,750	+	9,182	+	23,449	213,381
1781-82	192,450	+	11,015	+	24,297	227,762
1782-83	203,350	+	11,315	+	22,986	237,651
1783-84	187,900	+	10,582	+	25,131	223,613
1784-85	214,340	+	8,346	+	26,715	249,401
1785-86	226,550	+	7,883	+	27,844	262,277

TABLE XIII (cont'd.)

EXTRAPOLATED TOTALS

	Av. Exp. Unknown Roads		Av. Exp. Sample Roads		Known Exp. Sample	Total Expenditure
	£		£		£	£
1786-87	236,400	+	7,448	+	29,568	273,416
1787-88	299,600	+	7,866	+	29,218	336,684
1788-89	251,200	+	8,016	+	29,795	289,011
1789-90	277,300	+	8,224	+	32,618	318,142
1790-91	272,900	+	9,924	+	35,973	318,797
1791-92	273,150	+	8,424	+	36,879	318,453
1792-93	277,350	+	7,603	+	37,582	322,535
1793-94	281,450	+	7,603	+	38,893	327,946
1794-95	301,050	+	6,732	+	44,209	351,991
1795-96	296,550	+	11,032	+	43,162	350,744
1796-97	308,650	+	7,532	+	42,604	358,786
1797-98	337,850	+	7,032	+	45,635	390,517
1798-99	339,150	+	7,426	+	44,312	390,888
1799-1800	389,050	+	6,926	+	48,074	444,050
1800-01	404,450	+	8,026	+	54,720	467,196
1801-02	412,500	+	7,676	+	46,909	467,085
1802-03	438,900	+	8,054	+	50,913	497,867
1803-04	455,900	+	10,250	+	53,555	519,705
1804-05	472,450	+	10,250	+	57,704	540,404
1805-06	497,500	+	17,136	+	47,582	562,218
1806-07	510,700	+	16,992	+	51,316	579,008
1807-08	544,350	+	17,242	+	52,899	614,491
1808-09	540,000	+	17,242	+	56,021	613,263
1809-10	549,500	+	17,548	+	60,106	627,154
1810-11	590,350	+	18,803	+	58,349	667,501
1811-12	631,700	+	23,303	+	60,333	715,336
1812-13	650,350	+	26,164	+	57,554	734,068
1813-14	630,050	+	27,264	+	51,737	709,051
1814-15	642,300	+	32,364	+	52,597	727,261
1815-16	711,700	+	31,000	+	59,380	802,080
1816-17	708,500	+	30,000	+	60,666	799,166
1817-18	747,450	+	33,500	+	52,783	833,733
1818-19	742,950	+	32,245	+	53,258	828,453
1819-20	804,750	+	34,045	+	49,134	887,929
1820-21	797,750	+	52,071	+	32,652	882,473
1821-22	796,750	+	56,701	+	19,381	872,832

TABLE XIV

LOCATIONAL ANALYSIS OF SAMPLE

	London	Rural Agricultural	Urban Industrial	TOTAL
	£	£	£	£
1750-51	$\frac{4,657}{34} = 136$			$\frac{4,657}{34} = 136$
1751-52	$\frac{4,887}{34} = 144$			$\frac{4,887}{34} = 144$
1752-53	$\frac{5,811}{34} = 170$	$\frac{328}{10} = 32$	$\frac{723}{20} = 36$	$\frac{6,862}{64} = 107$
1753-54	$\frac{4,155}{34} = 122$	$\frac{441}{10} = 44$	$\frac{2,577}{68} = 36$	$\frac{7,173}{112} = 64$
1754-55	$\frac{3,627}{34} = 106$	$\frac{305}{34} = 9$	$\frac{4,604}{147} = 31$	$\frac{8,536}{215} = 39$
1755-56	$\frac{5,020}{34} = 147$	$\frac{666}{34} = 20$	$\frac{1,751}{147} = 11$	$\frac{7,437}{215} = 34$
1756-57	$\frac{10,570}{34} = 310$	$\frac{1,722}{54} = 32$	$\frac{2,205}{147} = 15$	$\frac{14,497}{235} = 61$
1757-58	$\frac{1,543}{14} = 110$	$\frac{1,676}{54} = 31$	$\frac{2,002}{147} = 13$	$\frac{5,221}{215} = 24$
1758-59	$\frac{5,368}{34} = 157$	$\frac{900}{54} = 17$	$\frac{4,392}{155} = 28$	$\frac{10,660}{243} = 44$
1759-60	$\frac{6,661}{45} = 148$	$\frac{4,047}{105} = 38$	$\frac{4,103}{165} = 24$	$\frac{14,811}{315} = 47$
1760-61	$\frac{5,175}{45} = 115$	$\frac{2,363}{105} = 22$	$\frac{2,533}{165} = 15$	$\frac{10,071}{315} = 32$
1761-62	$\frac{7,417}{76} = 86$	$\frac{2,246}{120} = 18$	$\frac{2,041}{165} = 12$	$\frac{11,704}{361} = 32$
1762-63	$\frac{7,277}{76} = 96$	$\frac{2,137}{156} = 14$	$\frac{1,931}{165} = 11$	$\frac{11,345}{397} = 29$
1763-64	$\frac{9,971}{98} = 102$	$\frac{1,519}{156} = 10$	$\frac{2,570}{165} = 15$	$\frac{14,060}{419} = 34$
1764-65	$\frac{8,554}{123} = 70$	$\frac{1,702}{178} = 10$	$\frac{1,709}{165} = 10$	$\frac{11,965}{466} = 27$
1765-66	$\frac{14,744}{159} = 92$	$\frac{6,658}{199} = 33$	$\frac{1,624}{165} = 9$	$\frac{23,026}{523} = 44$
1766-67	$\frac{12,446}{159} = 78$	$\frac{5,655}{199} = 28$	$\frac{4,197}{165} = 25$	$\frac{22,298}{523} = 43$

TABLE XIV (cont'd.)

	London	Rural Agricultural	Urban Industrial	TOTAL
	£	£		
1767-68	12,005/159 = 75	3,562/254 = 14	2,738/165 = 16	18,305/578 = 32
1768-69	10,869/159 = 68	2,346/233 = 10	2,205/165 = 13	15,420/557 = 28
1769-70	10,276/128 = 80	2,567/259 = 10	1,927/165 = 11	14,770/552 = 27
1770-71	12,974/128 = 101	2,188/259 = 8	2,585/165 = 15	17,747/552 = 32
1771-72	10,998/128 = 85	1,682/259 = 6	2,867/165 = 17	15,547/552 = 28
1772-73	11,469/125 = 91	2,799/251 = 11	2,132/165 = 12	16,400/541 = 30
1773-74	17,282/125 = 138	3,880/259 = 15	3,016/165 = 12	24,178/549 = 44
1774-75	15,175/156 = 97	2,257/241 = 9	2,654/165 = 16	20,086/562 = 36
1775-76	14,132/152 = 92	2,678/270 = 10	2,328/165 = 14	19,138/587 = 33
1776-77	13,477/145 = 92	2,248/270 = 8	2,722/165 = 16	18,447/580 = 32
1777-78	13,297/145 = 92	3,384/295 = 11	4,916/121 = 40	21,597/561 = 38
1778-79	13,074/145 = 90	3.014/305 = 10	4,298/200 = 21	20,386/650 = 31
1779-80	12,069/145 = 83	3,400/305 = 11	3,804/200 = 19	19,273/650 = 30
1780-81	13,821/140 = 98	5,429/340 = 16	4,199/200 = 20	23,449/680 = 34
1781-82	15,109/140 = 107	4,282/340 = 12	4,906/200 = 24	24,297/680 = 36
1782-83	15,325/140 = 109	3,865/322 = 12	3,796/200 = 18	22,986/662 = 35
1783-84	16,871/160 = 120	3,956/322 = 12	4,304/200 = 21	25,131/682 = 37
1784-85	15,785/112 = 112	7,339/386 = 19	3,591/200 = 17	26,715/746 = 36

TABLE XIV (cont'd.)

	London	Rural Agricultural	Urban Industrial	TOTAL
	£	£	£	£
1785-86	17,298/171 = 101	6,517/386 = 17	4,029/190 = 21	27,844/747 = 37
1786-87	18,424/196 = 94	7,099/386 = 18	4,045/180 = 22	29,568/762 = 39
1787-88	17,812/196 = 90	7,199/386 = 19	4,207/180 = 23	29,218/762 = 38
1788-89	18,855/196 = 96	7,315/334 = 21	3,625/180 = 20	29,795/710 = 42
1789-90	19,966/196 = 101	8,048/322 = 25	4,604/180 = 26	32,618/698 = 47
1790-91	20,578/196 = 104	8,028/294 = 27	7,367/190 = 39	35,973/680 = 53
1791-92	23,315/196 = 11 8	8,393/322 = 26	5,171/200 = 36	36,879/718 = 51
1792-93	24,422/223 = 109	7,018/322 = 22	6,142/200 = 31	37,582/745 = 50
1793-94	24,797/223 = 111	8,419/322 = 26	5,677/200 = 28	38,893/745 = 52
1794-95	26,425/223 = 118	11,261/343 = 33	6,523/200 = 32	44,209/766 = 58
1795-96	27,214/223 = 122	9,642/321 = 30	6,306/200 = 31	43,162/744 = 58
1796-97	25,847/223 = 115	10,075/380 = 26	6,682/215 = 31	42,604/818 = 52
1797-98	27,209/223 = 122	11,453/394 = 29	6,973/215 = 32	45,635/832 = 55
1798-99	24,537/223 = 110	12,637/394 = 32	7,138/215 = 33	44,312/832 = 53
1799-1800	26,977/223 = 120	12,590/415 = 30	8,507/215 = 40	48,074/853 = 56
1800-01	31,033/223 = 131	14,723/415 = 35	8,964/205 = 43	54,720/843 = 65
1801-02	29,875/223 = 134	7,135/464 = 15	9,899/205 = 48	46,909/892 = 57
1802-03	29,793/213 = 139	12,702/473 = 27	8,418/205 = 41	50,913/891 = 57
1803-04	34,094/213 = 160	11,395/461 = 25	8,066/190 = 42	53,555/864 = 62

TABLE XIV (cont'd.)

	London	Rural Agricultural	Urban Industrial	TOTAL
	£	£	£	£
1804-05	38,326 / 213 = 179	10,772 / 461 = 23	8,606 / 190 = 45	57,704 / 864 = 67
1805-06	27,626 / 196 = 129	10,675 / 421 = 25	9,281 / 190 = 48	47,582 / 807 = 59
1806-07	28,705 / 171 = 167	13,503 / 419 = 32	9,108 / 190 = 47	51,316 / 780 = 66
1807-08	33,676 / 196 = 171	10,991 / 383 = 29	8,232 / 190 = 43	52,899 / 769 = 69
1808-09	33,861 / 196 = 172	13,804 / 383 = 36	8,356 / 190 = 43	56,021 / 769 = 73
1809-10	36,501 / 196 = 186	14,885 / 368 = 40	8,720 / 190 = 45	60,106 / 754 = 80
1810-11	37,091 / 174 = 213	13,430 / 368 = 36	7,828 / 190 = 41	58,349 / 732 = 80
1811-12	38,262 / 164 = 233	14,854 / 368 = 40	7,217 / 190 = 37	60,333 / 722 = 84
1812-13	36,766 / 164 = 224	14,275 / 319 = 45	6,513 / 111 = 58	57,554 / 594 = 97
1813-14	34,650 / 164 = 211	10,500 / 309 = 34	6,587 / 111 = 59	51,737 / 584 = 89
1814-15	33,972 / 143 = 237	13,401 / 316 = 42	5,224 / 91 = 57	52,597 / 550 = 96
1815-16	35,541 / 104 = 344	17,903 / 439 = 41	5,936 / 91 = 65	59,380 / 634 = 94
1816-17	32,909 / 104 = 318	21,135 / 439 = 48	6,622 / 108 = 61	60,666 / 651 = 93
1817-18	29,428 / 94 = 315	17,204 / 439 = 39	6,151 / 71 = 86	52,783 / 604 = 87
1818-19	30,247 / 116 = 260	16,353 / 439 = 37	6,658 / 71 = 93	53,258 / 626 = 85
1819-20	36,784 / 116 = 318	5,394 / 314 = 17	6,956 / 86 = 80	49,134 / 516 = 95
1820-21	16,242 / 85 = 191	10,606 / 302 = 35	5,804 / 35 = 165	32,652 / 422 = 77
1821-22	11,434 / 36 = 317	6,440 / 123 = 52	1,507 / 17 = 88	19,381 / 176 = 110

TABLE XV. AVERAGE PER MILE TOTALS

Year	Mileage of Roads with no Exp. Extant	Av. per Mile from Sample £	Total Exp. of "Unknown" Roads £	Total Exp. of Sample Roads £	Total Net Turnpike Exp. £	Total English Turnpike Mileage
1750-51	1,750	136	238,000	13,541	251,541	1,968
1751-52	2,075	144	298,800	13,771	312,571	2,293
1752-53	2,615	107	279,805	16,046	295,851	2,904
1753-54	3,015	64	192,960	23,396	216,356	3,532
1754-55	3,235	39	126,165	19,933	146,098	3,855
1755-56	3,590	34	122,060	18,834	140,894	4,241
1756-57	3,900	61	237,900	27,268	265,168	4,586
1757-58	4,125	24	99,000	18,594	117,594	4,836
1758-59	4,345	44	191,180	24,209	215,389	5,072
1759-60	4,565	47	214,555	27,259	241,814	5,353
1760-61	5,000	32	160,000	23,068	183,068	5,810
1761-62	5,190	32	166,080	23,877	189,957	6,000
1762-63	5,845	29	169,505	27,505	197,010	6,751
1763-64	6,045	34	205,530	27,052	232,582	6,951
1764-65	6,355	27	171,595	24,085	195,670	7,261
1765-66	6,845	44	301,180	35,346	336,526	7,894
1766-67	7,100	43	305,300	34,984	340,284	8,149
1767-68	7,330	32	234,560	30,885	265,445	8,379
1768-69	7,615	28	213,220	27,800	241,020	8,664
1769-70	7,920	27	213,840	29,247	243,087	8,984
1770-71	8,435	32	269,920	31,750	301,670	9,499
1771-72	8,580	28	240,240	29,550	269,790	9,644
1772-73	8,735	30	262,050	30,903	292,953	9,813
1773-74	8,820	44	388,080	38,385	426,465	9,898
1774-75	8,820	36	317,520	33,895	351,415	9,898
1775-76	8,820	33	291,060	33,345	324,405	9,898
1776-77	8,860	32	283,520	32,684	316,204	9,938
1777-78	8,985	38	341,430	36,251	377,681	10,098
1778-79	9,075	31	281,325	35,680	317,005	10,198
1779-80	9,305	30	279,150	34,567	313,717	10,428

T A B L E XV. AVERAGE PER MILE TOTALS (cont'd.)

Year	Mileage of Roads with no Exp. Extant	Av. per Mile from Sample £	Total Exp. of "Unknown" Roads £	Total Exp. of Sample Roads £	Total Net Turnpike Exp. £	Total English Turnpike mileage
1780-81	9,425	34	320,450	32,631	353,081	10,548
1781-82	9,435	36	339,660	35,312	374,972	10,558
1782-83	9,475	35	332,325	34,301	366,626	10,618
1783-84	9,495	37	351,315	35,613	386,928	10,618
1784-85	9,570	36	344,520	35,061	379,581	10,693
1785-86	9,670	37	357,790	35,727	393,517	10,793
1786-87	9,765	38	371,070	37,016	408,086	10,888
1787-88	9,950	38	378,100	37,084	415,184	11,073
1788-89	10,035	42	421,470	37,611	459,081	11,158
1789-90	10,190	47	478,930	40,842	519,772	11,313
1790-91	10,390	53	550,670	45,897	596,567	11,530
1791-92	10,440	51	532,440	45,303	577,743	11,580
1792-93	10,670	50	533,500	45,185	578,685	11,810
1793-94	11,175	52	581,100	46,496	627,596	12,315
1794-95	11,240	58	651,920	50,941	702,861	12,401
1795-96	11,300	58	655,400	54,194	709,594	12,482
1796-97	11,365	52	590,980	50,136	641,116	12,547
1797-98	11,455	55	630,025	52,667	682,692	12,651
1798-99	11,475	53	608,175	51,738	659,913	12,671
1799-1800	11,540	56	646,240	55,000	701,240	12,731
1800-01	11,650	65	757,250	62,746	819,996	12,846
1801-02	11,690	53	619,570	54,585	674,155	12,886
1802-03	11,775	57	671,175	58,967	730,142	12,971
1803-04	11,930	62	739,660	63,805	803,465	13,126
1804-05	11,945	67	800,315	67,954	868,269	13,141
1805-06	11,990	59	707,410	64,718	772,128	13,186
1806-07	12,040	66	794,640	68,308	862,948	13,236
1807-08	12,110	69	835,590	70,141	905,781	13,306
1808-09	12,170	73	888,410	73,263	961,673	13,366
1809-10	12,265	80	981,200	77,654	1,058,854	13,468
1810-11	12,470	80	997,600	77,152	1,074,752	13,673

TABLE XV. AVERAGE PER MILE TOTALS (cont'd.)

Year	Mileage of Roads with no Exp. Extant	Av. per Mile from Sample £	Total Exp. of "Unknown" Roads £	Total Exp. of Sample Roads £	Total Net Turnpike Exp. £	Total English Turnpike Mileage
1811-12	12,570	84	1,055,880	83,636	1,139,516	13,773
1812-13	12,740	97	1,235,780	83,718	1,319,498	13,943
1813-14	12,855	89	1,144,095	79,001	1,223,096	14,058
1814-15	12,945	96	1,242,720	84,961	1,327,681	14,148
1815-16	13,080	94	1,229,520	90,380	1,319,900	14,418
1816-17	13,215	93	1,228,995	90,666	1,319,661	14,418
1817-18	13,270	87	1,254,490	86,283	1,240,773	14,473
1818-19	13,395	85	1,138,575	85,503	1,224,078	14,598
1819-20	13,515	95	1,283,925	83,179	1,367,104	14,718
1820-21	13,605	77	1,047,585	84,723	1,132,308	14,808
1821-22	13,605	110	1,496,550	76,082	1,572,632 ?	14,808

TABLE XVI

ENGLISH QUASI-NET INVESTMENT IN TURNPIKES, 1750-1856

Year					
1750-51	52,291	1786-87	273,416	1822-23	982,682
1751-52	64,171	1787-88	336,684	1823-24	1,053,337
1752-53	76,646	1788-89	289,011	1824-25	1,110,475
1753-54	87,696	1789-90	318,142	1825-26	1,157,915
1754-55	86,133	1790-91	318,797	1826-27	1,102,526
1755-56	92,284	1791-92	318,453	1827-28	1,101,978
1756-57	96,688	1792-93	322,535	1828-29	1,120,511
1757-58	90,594	1793-94	327,946	1829-30	1,099,361
1758-59	99,309	1794-95	351,991	1830-31	1,092,133
1759-60	107,709	1795-96	350,744	1831-32	1,107,043
1760-61	107,418	1796-97	358,786	1832-33	1,109,154
1761-62	106,127	1797-98	390,517	1833-34	1,128,380
1762-63	121,705	1798-99	390,888	1834-35	1,163,355
1763-64	116,452	1799-1800	444,050	1835-36	1,208,037
1764-65	113,285	1800-01	467,196	1836-37	1,262,971
1765-66	140,146	1801-02	467,085	1837-38	1,143,512
1766-67	145,334	1802-03	497,867	1838-39	1,140,854
1767-68	134,185	1803-04	519,705	1839-40	1,139,517
1768-69	136,550	1804-05	540,404	1840-41	1,047,491
1769-70	136,147	1805-06	562,218	1841-42	1,036,740
1770-71	153,700	1806-07	579,008	1842-43	955,045
1771-72	156,200	1807-08	614,491	1843-44	899,574
1772-73	164,253	1808-09	613,263	1844-45	866,704
1773-74	171,985	1809-10	627,154	1845-46	856,453
1774-75	170,043	1810-11	667,502	1846-47	841,904
1775-76	144,745	1811-12	715,336	1847-48	799,396
1776-77	170,604	1812-13	734,068	1848-49	775,933
1777-78	204,051	1813-14	709,051	1849-50	743,660
1778-79	194,780	1814-15	727,261	1850-51	729,407
1779-80	207,367	1815-16	802,080	1851-52	734,510
1780-81	213,318	1816-17	799,166	1852-53	767,572
1781-82	227,762	1817-18	833,733	1853-54	788,035
1782-83	237,651	1818-19	828,453	1854-55	754,366
1783-84	223,613	1819-20	887,929	1855-56	773,099
1784-85	249,401	1820-21	882,473		
1785-86	262,277	1821-22	872,832		

TABLE XVII. CLASSIFICATION OF PARLIAMENTARY TURNPIKE STATISTICS, 1829-1856

	1829	1834	1835	1836	1837	1838	1839
	£	£	£	£	£	£	£
Manual Labour	290,633	362,760	375,504	391,801	391,697	367,035	372,730
Team Labour) includes	554,731	128,815	131,794	154,632	188,302	172,768	176,496
Materials) Improvements		210,942	208,360	224,427	239,300	218,708	228,554
Tradesmens' Bills		64,975	65,226	66,592	62,942	62,966	61,483
Treasurers' Salaries)		6,230	6,411	6,086	6,301	6,431	5,809
Clerks' Salaries)	191,612	21,204	23,481	22,720	23,491	23,312	23,597
Surveyors' Salaries)		59,775	60,853	60,886	60,741	60,132	60,307
Incidentals)		56,848	63,564	59,937	59,857	56,006	53,056
Improvements		190,266	193,400	187,664	198,514	143,207	129,863
Law Charges		26,565	34,762	33,292	31,826	32,947	28,959
NET TOTALS	1,036,976	1,128,380	1,163,355	1,208,037	1,262,971	1,143,512	1,140,854
Deducted Transfer Payments							
Land)	55,762	19,272	27,597	13,954	17,860	14,693	14,529
Damages)		9,651	9,066	8,821	9,184	8,660	8,685
Interest	226,577	271,183	282,708	291,558	281,352	281,761	278,791
Principal	238,279	105,280	129,398	113,559	119,554	128,587	122,335
	520,618	405,386	448,769	427,892	427,950	433,701	424,340
Payments for former year plus interest not in accounts	62,319						

T A B L E XVII. CLASSIFICATION OF PARLIAMENTARY TURNPIKE STATISTICS, 1829-1856, (cont'd.)

	1840	1841	1842	1843	B1844	1845	1846
	£	£	£	£	£	£	£
Manual Labour	360,765	352,332	340,587	318,322	300,255	292,603	293,633
Team Labour	176,920	163,299	153,914	140,901	133,569	125,562	122,885
Materials	213,896	208,439	215,175	198,399	194,064	184,032	179,673
Tradesmens' Bills	57,625	54,021	56,197	52,410	49,227	48,475	46,625
Treasurers' Salaries	5,793	5,732	5,786	5,644	5,686	5,619	5,519
Clerks' Salaries	23,312	23,756	23,832	23,832	23,929	23,752	23,897
Surveyors' Salaries	60,166	59,215	58,692	57,263	56,775	56,109	54,915
Incidentals	58,181	50,982	48,158	52,239	53,345	48,850	52,205
Improvements	149,736	95,150	105,906	80,723	57,189	58,653	52,076
Law Charges	33,123	34,565	28,493	25,312	25,535	23,049	25,025
NET TOTALS	1,139,517	1,047,491	1,036,740	955,045	899,574	866,704	856,453
Deducted Transfer Payments							
Land — Land	15,612	11,660	7,700	3,755	7,492	4,101	3,357
Damages	8,804	7,703	7,501	7,748	6,949	6,660	5,570
Interest	275,579	281,436	275,442	272,347	271,823	263,813	262,711
Principal	120,189	107,186	110,911	109,857	138,874	149,509	167,102
	420,184	407,985	401,554	393,707	425,138	424,083	438,740

T A B L E XVII. CLASSIFICATION OF PARLIAMENTARY TURNPIKE STATISTICS, 1829-1856. (cont'd.)

	1847	1848	1849	1850	1851	1852	1853
	£	£	£	£	£	£	£
Manual Labour	299,499	282,546	262,937	249,773	248,885	245,855	261,157
Team Labour	126,751	113,704	106,372	99,602	101,816	98,937	104,095
Materials	184,688	170,048	164,829	159,303	158,288	159,877	172,423
Tradesmens' Bills	46,085	46,566	44,538	43,349	41,060	40,656	42,091
Treasurers' Salaries	5,643	5,507	5,646	5,438	5,411	5,196	5,113
Clerks' Salaries	23,536	23,311	24,132	23,983	23,641	23,940	23,560
Surveyors' Salaries	55,262	54,769	54,712	56,165	52,235	51,296	50,779
Incidentals	49,831	48,194	47,093	43,472	43,735	43,567	41,663
Improvements	30,113	32,458	39,798	40,797	30,812	35,874	41,009
Law Charges	20,496	22,293	25,876	21,785	23,584	29,312	25,682
NET TOTALS	841,904	799,396	775,933	743,667	729,467	734,510	767,572
Deducted Transfer Payments							
Land	1,758	2,574	2,027	1,375	2,294	1,883	3,676
Damages	5,809	5,388	5,228	5,145	4,656	4,733	4,335
Interest	253,754	243,040	245,434	237,406	227,228	218,250	207,285
Principal	147,194	132,559	116,750	131,273	111,418	129,421	139,553
	408,515	383,561	369,439	375,199	345,596	354,287	354,849

TABLE XVII. CLASSIFICATION OF PARLIAMENTARY TURNPIKE STATISTICS, 1829-1856. (cont'd.)

	1854	1855	1856
	£	£	£
Manual Labour	269,695	262,273	264,918
Team Labour	114,958	107,145	111,415
Materials	178,070	160,260	170,095
Tradesmens' Bills	44,721	42,718	38,519
Treasurers' Salaries	5,023	4,970	5,027
Clerks' Salaries	23,332	23,434	23,987
Surveyors' Salaries	50,136	50,111	49,987
Incidentals	44,805	43,470	43,519
Improvements	32,325	32,759	39,686
Law Charges	24,970	27,226	25,946
NET TOTALS	788,035	754,366	773,099
Deducted Transfer Payments			
Land	1,305	2,075	1,645
Damages	4,521	4,346	4,331
Interest	199,046	190,546	174,438
Principal	132,901	115,630	112,757
	337,773	312,597	293,171

TABLE XVIII. EXTRAPOLATED CLASSIFICATION OF PARLIAMENTARY STATISTICS, 1750-1828

	1750 £	1755 £	1760 £	1765 £	1770 £	1775 £	1780 £	1785 £	1790 £	1795 £	1800 £	1805 £	1810 £	1815 £	1820 £	1825 £	1830 £
Manual Labour (1/3, 32%)	16,340	30,761	35,806	46,715	51,233	48,248	71,127	87,425	106,265	116,914	155,732	187,406	222,500	267,360	294,157	385,971	364,044
Team Labour (1/7, 13.52%)	5,525	13,183	15,345	20,020	21,957	20,677	30,483	37,468	45,542	50,106	66,742	80,316	95,357	114,582	126,067	165,416	156,018
Materials (1/5, 19%)	10,458	18,456	21,483	28,029	30,740	28,948	42,676	52,455	63,759	70,148	93,439	112,443	133,500	160,414	176,493	231,582	218,425
Tradesmens' Bills (1/18, 5.45%)	2,905	5,126	5,967	7,785	8,538	8,041	11,854	14,570	17,710	19,485	25,955	31,234	37,083	44,559	49,025	64,328	60,673
Treasurers' Salaries (1/190, .526%)	275	485	565	737	808	761	1,123	1,380	1,677	1,846	2,458	2,959	3,513	4,221	4,644	6,094	5,747
Clerks' Salaries (1/51, 1.96%)	1,025	1,809	2,106	2,747	3,013	2,838	4,183	5,142	6,250	6,877	9,160	11,023	13,088	15,725	17,303	22,703	21,414
Surveyors' Salaries (1/20, 5%)	2,614	4,614	5,370	7,007	7,685	7,237	10,669	13,113	15,939	17,537	23,359	28,110	33,375	40,098	44,123	57,892	54,605
Incidentals (1/20, 5%)	2,614	4,614	5,370	7,007	7,685	7,237	10,669	13,113	15,939	17,537	23,359	28,110	33,375	40,098	44,123	57,892	54,605
Improvements (1/7, 14.8%)	7,470	13,183	15,345	20,020	21,957	20,677	30,483	37,468	45,542	50,106	66,742	80,316	95,357	114,582	126,067	165,416	156,018
Law (1/38, 2.67%)	1,376	2,428	2,826	3,688	4,044	3,809	5,615	6,902	8,389	9,230	12,294	14,795	17,565	21,104	23,222	30,469	28,740
	£ 52,291	94,659	107,418	140,146	153,700	144,745	213,381	£262,277	318,797	350,744	467,196	562,218	667,502	802,080	882,473	1,157,915	1,092,133

Net totals do not represent true totals because of a permitted error of approximately 3% in extrapolating

Thus for the six years 1833-39, legal fees average out at £188,381 out of an average net total of £7,047,109, which is a 2.67 per cent of the total. This 2.67 per cent is taken to represent the proportion of legal fees spent of the net total for the remaining years 1750-1833. Other classifications in the post-1833 net figures in Table XVII are treated similarly and the results are set out in full in Table XVIII above. There are a great number of objections to this type of straight-lined extrapolation.(1) Possibly the most important of these is the contention that relative proportions are unlikely to remain the same over a time span of almost a century, because other things do not remain equal. It is essentially applying static analysis to a dynamic situation.

For example, it is likely that the proportion of legal fees was smaller during the 1830's than earlier because no individual renewal acts were necessary following the acts of 1831.(2) It might be possible to estimate crudely by assuming that each road had a renewal act continually every twenty years following its date of origin. This assumption is based on the general practice of turnpike trusts as derived from material examined. However, it appears from the returns of 1820 that every twenty years is a gross under-estimate, because trusts did petition for acts to raise tolls and other purposes sometimes well before the twenty-one year term was due to expire.

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(1) See below, Ch. 9.
(2) ist and 2nd William IV, c.25.

After 1800 there are statistics available for renewal acts,[1] although these are not set out year by year. Moreover, even if the difficulties of compiling an annual series of renewal acts for the period 1750-1850 were overcome, there would still be the very serious problem of calculating the average cost of each act. Since parliamentary costs are in any case counted as investment expenditure for the purposes of the present study no estimate of the number of costs of renewal acts has been attempted here.

Nevertheless, similar objections can be found to other items; it is probable for example, that the ratio of team-labour to manual-labour, almost one to three in the 1830's was higher in the 18th century prior to Macadam's disparagement of carting.[2] It is also likely that more materials were used in the 18th century as wherever a trust could afford the expense inordinate quantities of gravel were carted and dumped in the road. On occasions this was carried out to such an extent that the road was raised considerably in relation to houses fronting it.[3]

It is also possible that improvements, and therefore land purchases and damages were higher in the 1820's and 1830's than during the 18th century. There is no direct correlation between land purchases and improvements, because for example, a hill may be lowered

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(1) P.P. 1850, XLIX, 519.
(2) Macadam, Remarks on Roadmaking, op. cit. p.104.
(3) T.F. Ordish, op. cit. pp.211-212 R.H. Spiro, op. cit.

with no extra land required.[1] But apart from this a general consideration of relative and absolute relationships is necessary at this juncture. It is likely that more money and more effort were expended absolutely in the 19th century than in the 1760's on improvements, but whether this represented a higher proportion of the total in the later period there is no means of knowing. This applies equally to other items such as Tradesmens' bills, Salaries, Incidentals, and even Interest. Although it appears that trusts were borrowing more in the 1820's[2] than previously, their incomes from total expenditure were also rising. It is thus possible that the relative relationship for interest had changed little since 1760.

A further source of confusion in this respect arises through the impact of inflation. An attempt has been made to deal with this problem for all transport sectors by constructing a series of investment expenditures at constant prices.[3] The Napoleonic War period was a time of violent inflation followed by almost as severe a period of deflation.[4] Such changes in the quality of money and credit can have powerful impacts on the relative sectional advantages of groups within a society. When interest rates are high the owners of capital will receive a greater return, and in the case of turnpikes it is probable that less would have been spent on the road. The difference

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(1) See above, p.8.
(2) See above, Tables XVII and XVIII.
(3) See below, Ch. 9.
(4) Gayer, Rostow and Schwartz, op. cit. Mitchell and Deane, op. cit.

between 4 per cent and 5 per cent on £10,000 is £100, and interest rates did move, albeit, slowly. From 1766 to 1786 the St. Albans Trust was paying 4 per cent: from 1787 to 1799 it was paying 4½ per cent, and from 1800 to 1820 it paid 5 per cent.(1) The Islington Trust paid 4 per cent from 1742 to 1757 and then 4½ per cent to 1781: thereafter it remained at 5 per cent until 1821 when some of the debt was reduced to 4 per cent before the Trust was taken over in 1827 by the Metropolis Commission.(2) It is clear therefore that rates of interest might well influence the proportion of revenue ascribed to its payment.

Possibly of greater influence on trust accounts was the impact of the changes in the quantity of money and other factors on the relative position of real wages. This brings the present discussion to the borders of the confusing and highly controversial "standard of living debate",(3) which it is not the intention of the present writer to enter. For the purposes of this study it is sufficient to point out that if the real wages of labourers rose or fell relative to other social groups then this would affect the proportion of trust income spent on wages. Thus if real wages declined in the 1820's

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(1) St. Albans Trust account books, Herts. R.O.
(2) A.J. Clark, op. cit. from the Islington Trust account books, I.P.L. The time lag in interest rates between the metropolis and provinces illustrated by the two examples above forms an interesting commentary on the greater investment opportunities in London. See, Albert, op. cit. for a full discussion of the inter-relationships of turnpike interest rates.
(3) For a lucid appraisal of the whole controversy, see, A.J. Taylor's "Progress and Poverty in Britain, 1780-1850", History, Feb. 1960. See also, E.P. Thompson, op. cit., Ch. 10.

and 1830's trusts could have either spent relatively less or have had more work done. Furthermore the relative price of materials as against labour may well have increased due to the pressures of war and inflation. It also seems that there may have been a long term decline in the price of road stone over the period for the country as a whole as the canal network spread, although this tendency was countered to some extent by increased competition among the growing number of trusts for available supplies.(1) Nevertheless cheaper bulk transport, as the period progressed, and the larger quantity of materials employed earlier through inferior skill may well mean that a much higher proportion of trust income was spent on materials in 1750 than in 1820.

Some of these factors will tend to cancel each other out and with others it is a question of absolute increases rather than relative. However, the objections amount in practice to a strong contention in favour of constructing a breakdown of estimates entirely from original sources. Unfortunately this is virtually impossible given the nature of the source material with its confused 18th century accounting procedures. It can be concluded therefore that while the extrapolation of the percentage estimates from the 1830's figures must be treated with caution, they do nevertheless give some guidance as to the nature of the proportions involved. They also allow the quasi-

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(1) T.F. Ordish, op. cit. p.194 discusses both canal transport and increasing competition among trusts in London at some length. The Bermondsey, Rotherhithe and Deptford Trust had its stone delivered by the Grand Surrey Canal. Payne, op. cit. Trusts made use of delivery by canal wherever they could. In the first place bulk carriage by water was very much cheaper and furthermore road stone was partly subsidised since it was navigated free of toll on many waterways. See, Hadfield, The Canal Age, op. cit. p.70

net investment series of Table XVII to be adjusted so that a "pure" investment table can be constructed. Whereas quasi-net investment as defined above[1] excludes the major transfer payments but includes some current maintenance costs, "pure" investment excludes any outlays which could conceivably be transfer payments or current expenditure. The "pure" series appears below in Table XIX and consists in effect of the average net figures of the 1830's for improvements extrapolated back to 1750 as in column four, Table XVIII.

TABLE XIX

"Pure" Net Investment Series

1750-51	7,470	1805-06	80,316
1755-56	13,183	1810-11	95,357
1760-61	15,345	1815-16	114,582
1765-66	20,020	1820-21	126,067
1770-71	21,957	1825-26	165,416
1775-76	20,677	1830-31	156,018
1780-81	30,483	1835-36	193,400
1785-86	37,468	1840-41	149,736
1790-91	45,542	1845-46	58,653
1795-96	50,106	1850-51	32,759
1800-01	66,742		

(1) See above, p. 7.

The series in Table XIX is a considerable underestimate, since even within the narrow confines of a "pure" net investment definition, a considerable proportion of the sums in Table XVII under Tradesmens' Bills, Materials, Manual Labour, and Team Labour, would have been concerned with new work and improvements as discussed above.(1)

Table XVI illustrates cyclical variations for the whole period. It shows a relatively consistent and steady growth for expenditure on roads. Turnpikes were apparently little affected by interest rates or war, apart from a spurt just before the American War of Independence, an increase which was subsequently reduced by the impact of the war. Thereafter a steady rate of growth reasserts itself until the decisive upturn during the Napoleonic war period. This is followed by continued steady expansion until the impact of the railways in 1837 with a falling off to 1851 and a rally thereafter. The upward movement after 1850 is particularly unexpected as in theory railway competition was growing ever more intense as the network grew, and the turnpike system was under attack in parliament.(2) Indeed, this period sees the commencement of efforts to eliminate turnpikes. The upward trend post-1850 is all the more interesting because the figures used are fully reliable by this time.(3) Possibly it is to

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(1) See above, Ch. I.
(2) Viz. Reports of the Secretary of State on turnpikes, P.P. 1852, XLIV, as an example of one of the many results of the criticism of turnpikes.
(3) See above for details of P.P's, p.97.

be explained in terms of expanding road traffic serving rail heads.[1]

However, the relative lack of cyclical fluctuations does cast misgivings on the net investment series in the light of the behaviour of other indices of economic activity.[2] Therefore, some of the figures for the 18th century derived from original sources are set out below in Table XX. These roads are situated in Kent, Lancashire, Middlesex, Nottinghamshire, Somerset, and the West Riding of Yorkshire, and it is clear that the relative lack of fluctuations is to be found in roads all over the country. The remaining 'base' roads derived for the 18th century can be found in Appendix B.

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(1) For discussion of the continued comparative advantage of carting over short distances, see Kellett, op. cit. pp 311-318.
(2) See below, Ch. 9.

TABLE XX

SAMPLE OF DETAILED 18TH CENTURY TURNPIKE EXPENDITURE

Kent — KENT ROADS. DEAL - SANDWICH ROAD — 14

Year	£	Year	£	Year	£
1797-98	1,400	1807-08	583	1814-15	905
1798-99	402	1808-09	857	1815-16	803
1799-1800	276	1809-10	626	1816-17	934
1800-01	761	1810-11	481	1817-18	766
1801-02	404	1811-12	570	1818-19	801
1803-04	390	1812-13	282	1819-20	770
1804-05	581	1813-14	599	1820-21	815
1806-07	607				

Kent — KIPPING CROSS - WILLESBY GREEN — 11 — Kent R.O.

1765-66	1,675	1784-85	131	1803-04	140
1766-67	1,218	1785-86	193	1804-05	216
1767-68	279	1786-87	28	1805-06	156
1768-69	203	1787-88	93	1806-07	156
1769-70	347	1788-89	164	1807-08	159
1770-71	106	1789-90	163	1808-09	428
1771-72	47	1790-91	28	1809-10	286
1772-73	124	1791-92	86	1810-11	276
1773-74	97	1792-93	132	1811-12	352
1774-75	193	1793-94	84	1812-13	319
1775-76	229	1794-95	118	1813-14	389
1776-77	128	1795-96	113	1814-15	323
1777-78	149	1796-97	112	1815-16	752
1778-79	71	1797-98	100	1816-17	609
1779-80	177	1798-99	192	1817-18	691
1780-81	300	1799-1800	206	1818-19	527
1781-82	257	1800-01	135	1819-20	604
1782-83	25	1801-02	172	1820-21	628
1783-84	91	1802-03	153	1821-22	431

TABLE XX (cont'd.)

Kent — STOCKERHEAD - CHELHAM ROAD 7 K.R.O.

Year	£	Year	£	Year	£
1809-10	2,360	1814-15	169	1818-19	79
1810-11	50	1815-16	107	1819-20	68
1811-12	170	1816-17	53	1820-21	28
1812-13	31	1817-18	55	1821-22	77
1813-14	50				

Kent — TONBRIDGE - MAIDSTONE ROAD 14 K.R.O.

1765-66	1,783	1784-85	187	1803-04	924
1766-67	717	1785-86	124	1804-05	169
1767-68	1,308	1786-87	155	1805-06	435
1768-69	521	1787-88	218	1806-07	651
1769-70	400	1788-89	313	1807-08	411
1770-71	190	1789-90	388	1808-09	1,160 (N.A.)
1771-72	386	1790-91	674	1809-10	532
1772-73	277	1791-92	612	1810-11	314
1773-74	257	1792-93	537	1811-12	560
1774-75	303	1793-94	395	1812-13	265
1775-76	195	1794-95	500	1813-14	478
1776-77	135	1795-96	436	1814-15	865
1777-78	30	1796-97	451	1815-16	372
1778-79	255	1797-98	418	1816-17	389
1779-80	268	1798-99	422	1817-18	261
1780-81	458	1799-1800	465	1818-19	454
1781-82	69	1800-01	605	1819-20	358
1782-83	155	1801-02	611	1829-21	456
1783-84	79	1802-03	1,004	1821-22	398

TABLE XX (cont'd.)

Lancashire MANCHESTER - WILMSLOW T.T. 11 M.C.A.

Year	£	Year	£	Year	£
1753-54	320	1776-77	69	1798-99	816
1754-55	278	1777-78	189	1799-1800	995
1755-56	440	1778-79	270	1800-01	643
1756-57	228	1779-80	408	1801-02	1,487
1757-58	192	1780-81	126	1802-03	878
		Bridge			
1758-59	324	1781-82	1,367	1803-04	879
1759-60	118	1782-83	304	1804-05	1,075
1760-61	105	1783-84	97	1805-06	1,082
1761-62	108	1784-85	26	1806-07	1,191
1762-63	83	1785-86	30	1807-08	1,128
1763-64	54	1786-87	33	1808-09	586
1764-65	79	1787-88	36	1809-10	829
1765-66	48	1788-89	157	1810-11	741
1766-67	48	1789-90	429	1811-12	1,021
Cheadle Bridge					
1767-68	44	1790-91	277	1812-13	1,239
1768-69	208	1791-92	352	1813-14	1,114
1769-70	81	1792-93N.A.	1,097	1814-15	1,127
1770-71	21	1793-94	510	1815-16	1,032
1771-72	93	1794-95	1,065	1816-17	1,130
1772-73	71	1795-96	985	1817-18	2,066 N.A.
1773-74	165	1796-97	429	1818-19	1,633
1774-75	34	1797-98	732	1819-20	1,282

Middlesex T.T. EDGEWARE TURNPIKE 10

Year	£	Year	£	Year	£
1750-51	1,038	1767-68	988	1784-85	1,017
1751-52	771	1768-69	1,056	1785-86	1,138
1752-53	979	1769-70	786	1786-87	1,823
1753-54	666	1770-71	1,102	1787-88	1,543
1754-55	868	1771-72	1,456	1788-89	1,183
1755-56	782	1772-73	2,409	1789-90	1,295
1756-57	788	1773-74	1,478	1790-91	1,261
1757-58	718	1774-75	1,225	1791-92	1,487
1758-59	697	1775-76	1,206	1792-93	1,361
1759-60	619	1776-77	1,409	1793-94	1,651
1760-61	899	1777-78	1,369	1794-95	1,626
1761-62	897	1778-79	1,529	1795-96	1,800
1762-63	1,677	1779-80	1,048	1796-97	1,532
1763-64	1,114	1780-81	1,187	1797-98	1,802
1764-65	827	1781-82	1,195	1798-99	2,448
1765-66	1,453	1782-83	1,128	1799-1800	2,493
1766-67	1,503	1783-84	1,327		

TABLE XX (cont'd.)

Middlesex T.T. MARYLEBONE TURNPIKE TRUST 4 (1721) G.L.R.O.Middx.

Year	£	Year	£	Year	£
1750-51	776	1772-73	2,423	1793-94	2,311
1751-52	878	1773-74	2,681	1794-95	2,274
1752-53	1,294	1774-75	2,200	1795-96	2,256
1753-54	589	1775-76	1,941	1796-97	2,480
1754-55	502	1776-77	1,434	1797-98	2,009
1755-56	890	1777-78	1,822	1798-99	2,116
1756-57	775	1778-79	1,975	1799-1800	2,145
1757-58	825	1779-80	1,793	1800-01	2,336
1758-59	975	1780-81	1,650	1801-02	2,043
1759-60	2,518	1781-82	1,892	1802-03	1,975
1760-61	1,415	1782-83	1,644	1803-04	2,917
1761-62	2,035	1783-84	1,694	1804-05	2,316
1762-63	1,523	1784-85	1,910	1805-06	2,366
1763-64	1,684	1785-86	1,932	1806-07	2,314
1764-65	1,228	1786-87	1,694	1807-08	2,925
1765-66	1,994	1787-88	1,892	1808-09	3,128
1766-67	2,521	1788-89	1,929	1809-10	3,764
1767-68	3,199	1789-90	1,715	1810-11	3,620
1768-69	2,438	1790-91	1,925	1811-12	3,857
1769-70	1,823	1791-92	2,135	1812-13	5,542
1770-71	2,337	1792-93	2,195	1813-14	4,045
1771-72	2,620				

TABLE XX (cont'd.)

Nottinghamshire LEADENHAM TURNPIKE TRUST 34 Notts. R.O.

Year	£	Year	£	Year	£
1759-60	2,842	1781-82	1,219	1801-02	871
1760-61	952	1782-83	452	1802-03	717
1761-62	425	1783-84	687	1803-04	963
1762-63	289	1784-85	632	1804-05	609
1763-64	271	1785-86	836	1805-06	810
1764-65	469	1786-87	567	1806-07	1,275
1776-67	263	1787-88	627	1807-08	1,307
1767-68	280	1788-89	358	1808-09	1,198
1768-69	313	1789-90	652	1809-10	990
1769-79	251	1790-91	565	1810-11	853
1770-71	208	1791-92	405	1811-12	905
1771-72	472	1792-93	453	1812-13	699
1772-73	489	1793-94	552	1813-14	913
1773-74	1,791	1794-95	806	1814-15	1,018
1774-75	619	1795-96	m	1815-16	1,031
1775-76	602	1796-97	919	1816-17	1,056
1776-77	583	1797-98	1,073	1817-18	1,143
1777-78	410	1798-99	834	1818-19	888
1778-79	433	1799-1800	1,052	1819-20	1,268
1779-80	454	1800-01	786	1820-21	1,179

TABLE XX (cont'd.)

Somerset SOMERSET TURNPIKE TRUSTS So.R.O.

Year	WELLS 37 miles	TAUNTON 79 miles	Year	WELLS	TAUNTON
1753-54	1,383		1785-86	926	1,721
1764-55	1,873	1,741	1786-87	860	1,399
1755-56	877	205	1787-88	1,032	1,440
1756-57	823	810	1788-89	924	1,569
1757-58	732	765	1789-90	1,269	1,562
1758-59	780	976	1790-91	1,768	2,031
1759-60	601	828	1791-92	1,611	1,341
1760-61	760	776	1792-93	1,507	1,665
1761-62	531	763	1793-94	1,362	1,722
1762-63	478	1,072	1794-95	1,362	1,722
1763-64	987	695	1795-96	1,363	1,574
1764-65	463	882	1796-97	1,412	2,040
1765-66	484	611	1797-98	1,300	1,904
1766-67	1,091	2,569	1798-99	1,609	2,236
1767-68	816	1,332	1799-1800	1,580	3,211
1768-69	823	892	1800-01	1,494	3,576
1769-70	497	977	1801-02	1,495	3,909
1770-71	827	445	1802-03	1,488	2,779
1771-72	748	762	1803-04	1,574	2,532
1772-73	824	704	1804-05	1,650	2,593
1773-74	1,000	1,236	1805-06	2,012	2,903
1774-75	831	827	1806-07	2,477	2,752
1775-76	867	857	1807-08	2,682	1,938
1776-77	876	807	1808-09	1,974	1,880
1777-78	845		1809-10	2,801	1,582
1778-79	1,033	809	1810-11	2,483	1,467
1779-80	864	1,262	1811-12	725	2,315
1780-81	1,019	1,509	1812-13	1,810	
1782-83	1,119	1,082	1813-14	1,392	
1783-84	938	1,698	1814-15	2,139	
1784-85	785	1,543	1815-16	1,623	
			1816-17	1,836	

TABLE XX (cont'd.)

West Riding — LEEDS AND HARROGATE ROAD — 15 — (1752) — W.R.A.

Year	£	Year	£	Year	£
1796-97	686	1799-1800	698	1802-03	657
1797-98	809	1800-01	764		
1798-99	578	1801-02	676		

West Riding Turnpike Trusts — RIPON - PATELEY BRIDGE TURNPIKE — 11

1756-57	1,002	1778-79	113	1800-01	99
1757-58	1,003	1779-80	57	1801-02	55
1758-59	313	1780-81	260	1802-03	27
1759-60	150	1781-82	127	1803-04	210
1760-61	22	1782-83	51	1804-05	80
1761-62	18	1783-84	47	1805-06	84
1762-63	71	1784-85	19	1806-07	108
1763-64	51	1785-86	32	1807-08	120
1764-65	175	1786-87	94	1808-09	105
1765-66	51	1787-88	26	1809-10	96
1766-67	61	1788-89	90	1810-11	82
1767-68	80	1789-90	79	1811-12	164
1768-69	88	1790-91	16	1812-13	197
1769-70	96	1791-92	28	1813-14	199
1770-71	90	1792-93	33	1814-15	113
1771-72	93	1793-94	11	1815-16	158
1772-73	124	1794-95	5	1816-17	102
1773-74	91	1795-96	55	1817-18	142
1774-75	73	1796-97	15	1818-19	54
1775-76	96	1797-98	15	1819-20	175
1776-77	92	1798-99	15	1820-21	410
1777-78	84	1799-1800	344	1821-22	213

road out to lease

new act

TABLE XX (cont'd.)

West Riding T.T. LEEDS - WAKEFIELD ROAD 8 W.R.A.

Year	£	Year	£	Year	£
1758-59	2,246	1779-80	434	1800-01	1,289
1759-60	1,410	1780-81	715	1801-02	1,113
1760-61	534	1781-82	323	1802-03	1,566
1761-62	148	1782-83	601	1803-04	2,170
1762-63	57	1783-84	715	1804-05	2,441
1763-64	620	1784-85	640	1805-06	1,975
1764-65	53	1785-86	554	1806-07	1,294
1765-66	380	1786-87	565	1807-08	1,156
1766-67	237	1787-88	930	1808-09	2,303
1767-68	394	1788-89	422	1809-10	2,246
1768-69	146	1789-90	934	1810-11	1,836
1769-70	218	1790-91	2,432	1811-12	2,060
1770-71	1,024	1791-92	858	1812-13	1,647
1771-72	938	1792-93	910	1813-14	1,937
1772-73	349	1793-94	911	1814-15	1,185
1773-74	266	1794-95	1,575	1815-16	2,568
1774-75	637	1795-96	1,245	1816-17	1,473
1775-76	289	1796-97	1,018	1817-18	1,744
1776-77	740	1897-98	1,158	1818-19	2,066
1777-78	899	1798-99	1,011	1819-20	2,238
1778-79	283	1799-1800	948	1820-21	4,062

It will be noted in Table XX that repair expenditure was not found in trust account books in some cases because the road maintenance was "leased" or contracted out. An example of this appears in the Table above in the Harrogate - Hutton Moor trust for the years 1793-99. In such instances the missing figures have been estimated from the preceding and succeeding years with comparison from complete series for similar roads.

It also emerges clearly from the roads in Table XX that 18th century turnpikes did lay out large sums initially in reconstructing the roads.(1) This is not true of every road but in the majority of cases trustees do seem to have commenced operations by borrowing several thousand pounds on the security of the toll. Moreover, only a relatively small proportion of this primary expenditure is accounted for by the parliamentary fees. The cost of turnpike acts varied enormously depending on the length and importance of a road and the amount of opposition to be overcome. Thus at one extreme , legal and parliamentary fees could cost the Exeter trust £614 for a renewal act in 1815-16; in 1759-60 its first act cost the Leadenham - Southwell Road in Nottinghamshire £687, and in 1781-82 a renewal act cost £560. On the other hand the Helston trust in Cornwall paid £319 for a renewal act in 1780-81, and

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(1) This appears to contradict S. Pollard's findings in his paper at the Third Munich Economic History Conference, 1965 - "The Growth and Distribution of Capital in Great Britain, 1770-1870". However, it is clear that most trusts did invest large sums initially in the 18th century, although some did not do so and a misleading impression could easily be gained from several of the latter. See App. B.

the Hungerford - Sously Road in Berkshire paid £235 for a renewal act in 1792-93.(1) The first act tended to be more expensive than subsequent renewals, if only because there was less opposition once a road was established. Furthermore, Table XX reveals that in those cases where the expenses of a renewal act can be obtained from the accounts the acts do not always appear to be twenty-one years apart. However, this is likely to be due to a typical time-lag of several years in settling accounts, which is very common in the 18th century.(2)

Beyond the average figure of £400 assumed for a first act in the 18th century, considerable sums were laid out in improving a road once a trust was established. Some of this initial expenditure went into constructing toll-houses, but these were relatively cheap.(3) and in any case, outside London the average trust seems to have had only two or three of them.(4) The remainder, usually amounting to considerable capital sums was spent on improving the road when a trust was first set up. Thereafter levels of expenditure depended almost entirely on the amount of revenue until the great expansion of both in the Napoleonic War period. However, tremendous growth in income during the war seems to have caused many trusts to spend more than

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(1) For the Leadenham - Southwell Road, see Table XX; for the others see below, App. B.
(2) S. Pollard, "Fixed and circulating Capital in the Industrial Revolution", op. cit.
(3) See above, p.14.
(4) The 1828-29 returns give the number of toll houses operated by each trust. P.P., H.o.L. 1833, Vol. X, B.M.

they received in tolls and parish composition financing their deficits by borrowing in anticipation of increased future income. This practice benefited the road surfaces but not the trusts' financial positions and was much criticised by contemporaries. Thus the 1828-29 returns[1] were originally arranged in the course of processing into two categories, viz: roads with 'Expenditure above Income' and those with 'Income above Expenditure'. There is more than a hint that the air of moral virtue is emphasized by the former being at the top of the page and the latter below. Sometimes trusts were in deficit to pay for improvements and when these were finished they were financially 'sound' again, but many were, from a narrow viewpoint,[2] badly managed because they consistently spent more than they earned. In some cases this was due to income from fixed toll rates having been eroded by inflation[3] or a by-road having been turnpiked unnecessarily. But in other cases it was due to 'mismanagement'.

It is therefore difficult to attempt an accurate correlation between expenditure of trusts and their revenue from tolls in order to trace regional economic development in the way that Wilson has done for the Leeds district.[4] However, expenditure on turnpikes can be

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(1) P.P. H.o.L. 1833, Vol. X, B.M.
(2) Albert discusses this fully in the light of modern transport economics, op. cit. pp. 326-27. See also, the sophisticated measurement of benefits accruing to an economy as a whole in Fishlow, op. cit. See also, Ch. 9 below, and Kellett, op. cit. Ch. II.
(3) Maud, op. cit.
(4) R.G. Wilson, "Transport Dues as an Index of Economic Growth", op. cit.

used as an index of economic growth in its own right. It does bear a direct relationship to the growth of traffic and tolls even where this consists of capitalized expectations in borrowing money. The inaccuracy introduced by this factor because of such expectations being unfulfilled is as marginal as the problems of raising toll rates at renewal acts in Wilson's work.(1) When tolls decreased, trusts cut back expenditure, possibly letting road maintenance out to contract to force costs down.

The influence of regional economic growth is quite distinct in Table XX above, allowing for differences between major trunk routes and cross country roads. Thus both the Edgeware and Marylebone trusts were spending far more in the 1750's than the Kipping Cross - Willesley Green Road was spending almost a century later. Equally the Leeds - Wakefield Road started operations a few years before the Kipping Cross Road and shared a similar pattern of expenditure for the first few years, but thereafter their progress was vastly different. In addition, the incidence pattern of acts casts considerable light on the development of a district since this generally went hand in hand with improved communications.(2)

Dr. Albert has found that the pattern of turnpike development which emerges from a study of the acts was far less piecemeal

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(1) Wilson, op. cit.
(2) Albert, op. cit.

and ill-conceived than had been assumed in the past. Fundamentally the earliest roads to be turnpiked were the great arteries leading out of London through those districts where the soil formed a particularly poor natural road. The later acts show a close correlation between the economic growth of a town or district and the date of turnpiking its roads,(1) always taking into account the differences in local soils. For a given quantity of traffic 'natural' roads deteriorated far more easily in clay districts than they did in well drained sandy regions.

This pattern is confirmed and magnified by the growth of turnpike expenditure as set out in Table XX and Appendix B. From these and Tables III-VIII, and XII-XV above it is clear for example, that turnpike expenditure was increasing throughout the period in the London area as the city expanded.(2) In the 18th century it grew most quickly in the Middlesex area as the city spread out in that direction, but in the 1820's expenditure by the trusts on the South Bank expanded as infilling grew apace in that district.(3)

Part of the increase of the London trust expenditure was

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(1) For specialist studies see A.L. Thomas, Geographical Aspects of the Development of Transport and Communications affecting the Pottery Industry of North Staffordshire in the 18th Century, Ph.D.Thesis Manchester, 1933. G.H. Hopkinson, The Development of Mining and Communications in North Derbyshire and South Yorkshire, 1700-1850, Ph.D. Thesis, Sheffield, 1958. F.A. Bailey, "The Turnpike from Liverpool to Prescott", op. cit.

(2) In the Appendices, see principally Middlesex, but also, such Home Counties as Surrey, Kent, Herts. and Essex.

(3) See, T.E. Ordish, op. cit., for figures of population and house growth in the principal home counties for both 18th and 19th centuries. The former are guestimates from 'house counting', but the 19th century figures are derived from census reports. See also, M.R. Rees, The Economic and Social Development of Extra-Metropolitan Middlesex in the 19th Century, M.Sc. Thesis, London, 1955; and H.J. Dyos, Camberwell, 1965. Henry Rees, The North Eastern Expansion of London since 1770, M.Sc. Thesis, London, 1946.

caused by the growth of commuting by frequent-stops stage coaches and buses,[1] although this was on nothing like the scale later attained by the railways.[2] This development of commuting was itself a symptom of the growth of London commercially and industrially during the Napoleonic War period. The construction of the West India Docks and Isle of Dogs Canal during the War period,[3] with the subsequent St. Katherine's Dock complex in the 1820's were all a reflection and a cause of this economic growth, with an impact on increased personal commuting, local goods traffic and national goods traffic.

The series for trusts in southern counties such as Kent and Somerset, and Devonshire[4] confirm the impression of their relative industrial decline during the late 18th and early 19th centuries. In addition the figures illustrate that this occurred somewhat later than traditional accounts have contended, in accordance with modern local research in these regions.[5] Moreover, the series for trusts in the Derbyshire, Lancashire and West Riding areas seem to reveal that the textile industry areas did not experience really rapid turnpike growth until the 1790's, although thereafter growth is maintained at a high level.

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(1) A. Bird, Roads and Vehicles, (1968) for a detailed description of the development of the early buses in London. See also, T. Barker and M. Robbins, History of London Transport, (1963). and T.C. Barker, "Passenger Transport in 19th Century London", J.T.H., VI, 1963-4.

(2) Kellett shows that the extent of commuting even by train has been exaggerated, op. cit. pp.365-71.

(3) W. Stern, "Isle of Dogs Canal", E.H.R, 1952.

(4) See, Table XX and App. B..

(5) Jennifer Tann, Gloucestershire Woollen Mills, (Newton Abbot, 1968)

Trusts lying on major trunk routes such as the Essex and Hertfordshire trust, the Hockerill Road at the London end of the Great North Road,[1] or the Ferrybridge - Boroughbridge section in Yorkshire,[2] do not show the growth in expenditure which might be expected. This may be due in part to the spread of Macadam's cheaper and more efficient ideas of roadmaking. But although this may help to account for a positively declining rate of expenditure in some trusts in the 1820's[3] it is unsatisfactory in explaining a relative lack of growth for some roads when all could use his methods and the majority did so by 1830. The spread of Macadam's techniques was almost the equivalent of a new technology with its impact ensuring that other things did not remain equal.[4] But this is of far more importance in making for inaccuracy over a long period than in the short term. Furthermore, in the case of the Hockerill Trust it appears that some of the increased expenditure after 1808-10 is due to higher tolls granted by the renewal act obtained in those years.[5] However, this relative lack of growth of traffic is all the more surprising when compared with the tremendous development of roads having little direct commercial purpose in the fashionable Brighton area during the Regency period.[6] The slow growth of north-

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(1) See App. B, below.
(2) See West Riding, App. A, below.
(3) See App. A, below.
(4) See above, p. 136. See also, G.H. Tupling, op. cit., for a discussion of the spread of Macadam's methods.
(5) F. Maud, op. cit. p.34.
(6) See H.C. Brookfield, Urban Development in Coastal Sussex since the 18th Century, Ph.D. (London, 1950)

south through traffic was therefore presumably a reflection of the relatively high efficiency of the canals and coastal shipping for moving freight,[1] and the considerable impact of the coastal steamers in the 1820's and 1830's on passenger traffic to the north.[2]

It can be concluded that the pattern of growth of turnpike expenditure as revealed by the figures in the Tables and Appendices both reflects and confirms accounts of regional and national economic development.[3]

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(1) For example of costs, see below, Ch. 4.
(2) Jackman, op. cit. p.615.
(3) G.G. Hopkinson, op. cit. Annie Thomas, op. cit. Payne, op. cit. and Deane and Cole, op. cit. F.A. Bailey, op. cit. G.H. Tupling, op. cit.

CHAPTER 5

GOVERNMENT ROAD EXPENDITURE 1750-1856

The government contribution to road making in the period 1750-1856 has been completely omitted from the foregoing Tables. For government spending undoubtedly distorted the net investment pattern in turnpikes in the 1820's and 1830's, particularly when these figures are used as a crude index of economic activity. The principal government effort during this period was confined to the Commissioners for Highland Roads and Bridges in Scotland,(1) and a similar body for the Holyhead Road(2) in England and Wales. Neither of these ventures should be used directly as an indication of economic activity because they

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(1) P.P's. 1803-4, V, 715. 1805, III, 271. 1807, III, 231. 1809, IV, 1. 1810-11, IV, 393. 1812-13, V, 1. 1814-15, III, 427. 1817, IX, 1. 1821, X, 37. 1824, IX, 257. 1825, XV, 29. 1826, XI, 59, 1826-27, VII, 107. 1828, IX, 277. 1829, V, 135. 1830, XV, 87. 1830-31, IV, 379. 1831-32, XXIII, 521. 1833, XVII, 405. 1834, XL, 165. 1835, XXXVI, 227. 1836, XXXVI, 423. 1837, XXXIII, 171. 1837-38, XXXV, 75. 1839, XX, 383. 1840, XXVIII, 431. 1841, XII, 223. 1842, XXV, 177. 1843, XXIX, 353. 1844, XXXI, 249. 1845, XXVI, 23. 1846, XXIII, 79. 1847, XXXIII, 289. 1847-8, XXXVII, 167. 1849, XXVII, 77. 1850, XXX, 75. 1851, XXXIX, 85. 1852, XVIII, 485.

(2) P.P's. 1820, VI, 351. 1821, X, 257. 1822, VI, 361. 1823, X, 22. 1824, IX, 281,293. 1825, XV, 51,63. 1826, XI, 97,47. 1826-7, VII, 61,81. 1828, IX, 227,217. 1829, V, 73,103. 1830, XV, 77,23. 1830-31, IV, 369. 1831, XII, 29. 1831-2, XXIII, 597,573. 1833, XVII, 427, 437. 1834, XL, 137,147. 1835, XXXVI, 331,271. 1836, XXXVI, 395,403. 1837, XXXIII, 227,195. 1837-8, XXXV, 135,93. 1839, XXIX, 587,595. 1840, XXVIII, 487,465. 1841, XII, 259. 1842, XXV, 205. 1843, XXIX, 291. 1844, XXXI, 273. 1845, XXVII, 169. 1846, XXIV, 309. 1847, XXXIII, 325.

were based on almost entirely politically motivated investment decisions. The activities in Scotland were concerned with the continued pacification of a potential ally of the French. In addition the government became concerned with the depopulation caused in the Highlands by the landlords' clearances in the early 19th century.(1) The interest in the Holyhead Road was due almost entirely to political concern with ease of communication with Ireland, which was feared even more than Scotland as a potential French ally and source of unrest.(2)

There was also some expenditure by the government on a road from Carlisle to Port Patrick(3) to facilitate the northern crossing to Ireland for similar reasons. The government spent some money on the Carlisle - Glasgow Road(4) and on the Morpeth stretch(5) of the Great North Road and plans were made for the ultimate improvement of the whole line from London. It appears, however, that economic motivation played a far greater part in state concern for the North Road than was the case with the road to Ireland.(6)

The government expenditure on all of these transport undertakings is set out below in Table XXI. It has been derived from Parliamentary Papers except in the case of column one, Military Roads

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(1) A.R.B. Haldane, New Ways through the Glens, (1962), pp.24-37.
(2) Viz: Wolfe Tone Rebellion of 1798
(3) P.P. 1809, III, 609, P.P. 1810-11, III, 789.
(4) P.P. 1814-15, III, 331, and the Newcastle-Carlisle Rd.
(5) P.P. 1822, VIII, 381. P.P. 1823, V, 133. P.P. 1824, VII.
(6) Webbs', King's Highway, op. cit. p.178.

in Scotland, which is based on manuscript accounts in the Public Record Office.(1) These sources all give full details of the sums spent, and it has therefore been possible to deduct all balances and transfer payments for land, damages, interest and so forth.(2)

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(1) P.R.O. A.O.3.81, Pre-1764 figures have not survived, possibly because activity was at a very low level after Wade left, See, Haldane, op. cit. This outlay still counts as investment even if much of it was futile and unproductive. See above, Ch. I.

(2) See above, Ch. 1.

TABLE XXI

CENTRAL GOVERNMENT EXPENDITURE ON BRITISH ROADS AND BRIDGES, 1750-1856

	Military Roads in Scotland	Shrewsbury Holyhead Road	London Holyhead Road	Highland Roads and Bridges	TOTAL Government Expenditur
	£	£	£	£	£
1764-65	2,545				
1765-66	3,097				
1766-67	7,512				
1767-68	5,982				
1768-69	6,683				
1769-70	7,186				
1770-71	8,834				
1771-72	9,073				
1772-73	9,215				
1773-78	missing				
1779-80	4,764				
1780-81	4,559				
1781-82	missing				
1783-84	4,340				
1784-85	3,541				
1785-86	3,197				
1786-87	6,937				
1787-88	5,858				
1788-89	4,598				
1789-90	4,885				
1790-91	6,183				
1791-92	4,712				
1792-93	4,217				
1793-94	4,073				
1794-95	4,541				
1795-96	4,740				
1796-97	4,237				
1797-98	3,263				
1798-99	4,742				
1799-1800	4,732				

TABLE XXI (cont'd.)

	Military Roads in Scotland	Shrewsbury Holyhead Road	London Holyhead Road	Highland Roads and Bridges	TOTAL Government Expenditure
	£	£	£	£	£
1800-01	4,484				
1801-02	4,814				
1802-03	5,040				
1803-04	4,673			393	5,066
1804-05	5,479			2,938	8,417
1805-06	4,868			10,670	15,538
1806-07	4,683			19,670	15,353
1807-08	5,408			11,793	17,201
1808-09	7,170			11,793	18,963
1809-10	5,245			20,030	25,275
1810-11	5,485			20,030	25,515
1811-12	5,919			33,639	39,558
1812-13	6,047			18,297	24,344
1813-14	3,995			18,297	22,292
1814-15				33,704	33,704
1815-16				12,277	12,277
1816-17				5,193	5,193
1817-18				6,413	6,413
1818-19				8,754	8,754
1819-20		1,602		9,034	10,636
1820-21		4,064		9,162	13,226
1821-22		4,215		7,841	12,056
1822-23		4,317		9,609	13,926
1823-24		4,890	44,292	12,393	61,575
1824-25		5,545	373,317	10,344	389,206
1825-26		5,027	52,647	8,322	65,996
1826-27		5,249	84,231	9,578	99,058
1827-28		4,352	33,640	11,265	49,257
1828-29		4,819	35,693	10,732	51,244
1829-30		4,598	43,419	10,057	58,074
1830-31		4,579	12,816	9,411	26,806
1831-32		4,572	5,280	10,348	20,200

TABLE XXI (cont'd.)

	Military Roads in Scotland	Shrewsbury Holyhead Road	London Holyhead Road	Highland Roads and Bridges	TOTAL Government Expenditure
	£	£	£	£	£
1832-33		4,180	4,622	18,893	27,695
1833-34		4,197	2,946	13,718	20,861
1834-35		4,353	10,553	missing	14,906
1835-36		4,828	3,892	13,112	21,832
1836-37		4,986	2,186	11,970	19,142
1837-38		24,530	9,930	12,270	46,730
1838-39		4,296	18,670	12,620	35,586
1839-40		4,291	9,580	15,948	29,819
1840-41		5,032	3,436	14,183	22,651
1841-42		5,015	4,681	12,896	22,592
1842-43		5,314	4,559	14,349	24,222
1843-44		4,971	2,165	13,623	20,759
1844-45		4,993	2,485	14,198	21,676
1845-46		4,842	1,853	13,616	20,311
1846-47		5,393	462	12,853	18,708
1847-48				16,543	16,543

The line of the Holyhead Road had money spent on it by the trusts as well as the government Commission, but the seven trusts from Shrewsbury to Anglesey were merged into one in 1819.(1) This line was thenceforward controlled in effect by the Holydead Road Commissioners. The remaining 17 English trusts, however, proved too powerful politically for the Commissioners to impose this type of solution. The Commissioners were in effect a government investment agency to these English trusts, but relations remained an uneasy compromise,(2) confusingly reflected in the parliamentary accounts. The 17 bodies of trustees remained responsible in practice for the routine current administration of the roads, collecting the tolls and spending the revenue in the usual manner.(3) Thus this expenditure by the trustees appears in the 1820's county returns and in the post-1833 parliamentary returns. For example, in the Bedfordshire returns set out in Table III the Puddle Hill trust figures are detailed and in Table V for Warwickshire, the Dunchurch - Old Stratford, and Dunchurch - Stonebridge Roads appear. These three trusts are among the 17 on the line of the Holyhead Road, and the

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(1) P.P. 1820, VI, 351. See also, Mervyn Hughes, "Telford, Parnell and the Great Irish Road", J.T.H., VI, 1963-4.

(2) H. Lansbury, "James Macadam and the St. Albans Turnpike Trust", op. cit., for a highly detailed account of relationships between trustees of one road and the Commissioners.

(3) Although the Commissioners were later given additional powers to maintain control over a road for two years after they had reconstructed it. Jackman, op. cit. p,274.

remaining 14 trusts are gathered in the various county returns.[1]

However, simultaneous to this normal trust control, the Holyhead Road Commissioners were effecting large scale improvements with the trustees' consent,[2] in straightening, widening, and reducing gradients.[3] The Commissioners were empowered to levy additional tolls on the whole line of road, to be collected and handed over by each trust. This money was intended for interest and principal repayments on the funds the Commissioners had borrowed from the Exchequer Loan Commissioners for the improvements to the road. All such payments have been deducted for Table XXI since they are clearly transfer payments. It can be seen that the administrative division between the trustees and the Holyhead Road Commissioners approximates to one between current and capital expenditure.

The situation is further confused by the Holyhead Road Commissioners being empowered to carry out the construction of the Conway and Menai Bridges. Parliament authorized direct grants for the bridges, and also made some grants for the expensive engineering of the Welsh section. All of these expenditures are included in columns one and two of Table XXI.

A further measure of government intervention in 1827 involved the establishment of the Metropolis Turnpike Commissioners.[4] As

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(1) See Table IV and App. A.
(2) H. Lansberry, op. cit.
(3) As the A5 today, this road is probably the nearest in England to a French Chaussée.
(4) See, T.F. Ordish, op. cit., and R.H. Spiro, op. cit.

constituted this body was the result of a desire for administrative rationalization and econony rather than a government investment agency for political purposes. It was in any case almost completely free of any direct government interference[1] and it did not cause any suspicion of double counting in the county returns or parliamentary statistics because it completely superseded the previous trusts.[2]

The discussion of turnpike expenditure up to this point has been concerned with England alone, apart from the Shrewsbury - Anglesey Road. The estimates have been extended to include Scotland and Wales in the following manner:

For Wales there are fully detailed figures available from 1833-1856[3] as set out in Table XXIIA below. These have been adjusted and compared with the English Quasi-net totals for that period. The Welsh expenditure works out at 5 per cent of the English.[4] This percentage has then been extrapolated backwards to 1750 in accordance with the English totals.

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(1) This was also largely true of the Holyhead Road Commissioners and the Highland Road Commissioners because the government generally made certain that men it could rely on were chosen who would act as it desired. Haldane, op. cit. The Military Road construction in 18th century Scotland was under direct government control.

(2) The trusts superseded were all in Middlesex, see, App. A, and were as follows: Bethnal Green Trust, Brentford Trust, Camden Town Rd., City Rd., Hackney Rd., Harrow Rd., Highgate and Hampstead Rd., Isleworth Rd., Kensington Rd., Kilburn Rd., Old St., St. Marylebone Rd., Stamford Hill Rd., Uxbridge Rd.

(3) Derived from the same P.P's. as the English figures on p. 97. above.

(4) Monmouth was included with England in the post-1833 returns but has been put in with Welsh expenditure for 1822-33. A percentage extrapolation on the basis of its average outlay of £1,000 p.a. in those years was added to the Welsh extrapolation for 1750-1822.

A similar method has been used in the case of Scotland where the post-1842 material in Table XXIIB has been extracted from parliamentary sources.(1) A percentage derivation was then taken in comparison with the English Figures for the years 1842-7 and this was extrapolated backwards as for the Welsh figures. These procedures for Scotland and Wales are open to all the objections discussed above(2) due to static analysis in a dynamic situation. It can be cogently argued for example, that both Scotland and Wales were relatively less developed economically in 1750 than England.(3) As a corollary it is likely that when growth did materialize in these regions it was at a higher rate than in England.

However, since the totals are small relative to England, such inaccuracy affects the absolute picture of transport development in Wales and Scotland far rather than the relative national total for Britain as a whole. These totals are set out below in Table XXIIC. Column one consists of the English net total from Table XVI; column two shows the quasi-net parliamentary figures for Wales from 1833 onwards and the extrapolated totals for 1750-1832. Column three

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(1) P.P.'s 1850, XLIX, 145, 197. 1851, XLVIII, 463. 1852, XLIV, 513. 1852-3, XLVII, 639. 1854,LXIv, 333. 1854-5, XLIX, 343. 1856, LVIII, 327. 1857-8, LII, 705.

(2) See above, p. 136.

(3) H. Hamilton, The Industrial Revolution in Scotland, (Oxford, 1963).
D. Bremner, The Industries of Scotland, their Rise, Progress, and Present Condition, 1st Ed. (London, 1868)
A.E. Dodd, The Industrial Revolution in North Wales, (1933).
D. Williams, The Rebecca Riots, op. cit.

gives quasi-net totals from the parliamentary material for Scotland after 1842 and the extrapolated totals for the remaining years. Column four comprises the total government expenditure as derived from Table XXI. Column five is the grand net total for British Quasi-net investment in turnpikes for the whole of the period under consideration.

The parliamentary statistics from 1833 to 1856 include returns from some bridge trusts. Prior to 1833 bridges are not included in any of the series in Table XXII apart from the government total, nor does Table XXI take in expenditure on county bridges.(1)

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(1) See below, Ch.7.

TABLE XXIIA. WELSH PARLIAMENTARY TURNPIKE RETURNS

	1829	1834	1835	1836	1837	1838	1839	1840
	£	£	£	£	£	£	£	£
Manual Labour	12,539	21,673	22,161	24,684	23,713	23,939	26,147	26,077
Team Labour		3,127	3,067	4,243	5,702	6,299	7,757	7,874
Materials	25,506 (including improvements)	6,105	7,475	5,799	5,740	5,488	5,931	5,935
Trade Bills		2,123	2,293	2,694	2,598	2,118	2,955	3,068
Treasurers Salaries	4,142	494	538	333	364	413	401	378
Clerks Salaries		1,409	1,366	1,560	1,483	1,422	1,470	1,446
Surveyors		3,842	3,740	4,264	3,926	3,900	4,149	4,105
Incidentals		2,196	2,734	3,479	2,599	2,785	2,930	1,063
Improvements		26,885	18,408	17,075	9,578	11,422	13,000	21,465
Law		2,323	3,707	1,395	617	1,065	669	1,063
NET TOTAL	42,187	70,177	65,489	66,526	56,320	58,851	65,409	72,474
Deducted Transfer Payments								
Land	502	912	242	250	719	225	664	534
Damages		366	274	565	346	351	322	321
Interest	10,052	18,192	18,860	21,823	21,298	19,700	21,863	21,465
Principal		2,530	3,584	3,711	2,921	3,404	3,515	5,688

TABLE XXIIA. Welsh Parliamentary Turnpike Returns (cont'd.)

	1841	1842	1843	1844	1845	1846	1847	1848
	£	£	£	£	£	£	£	£
Manual Labour	24,998	27,994	24,762	23,364	20,274	20,244	22,248	20,900
Team Labour	8,240	7,440	6,241	5,263	3,124	2,677	3,483	2,519
Materials	6,241	4,705	5,614	5,407	11,881	14,147	14,786	14,876
Trade Bills	2,984	2,959	2,630	2,674	1,788	1,817	1,384	1,480
Treasurers Salaries	378	358	403	381	215	215	268	211
Clerks Salaries	1,469	1,572	1,532	1,491	1,625	1,594	1,597	1,568
Surveyors	4,183	3,884	3,808	3,788	3,160	3,180	3,332	3,347
Incidentals	3,142	3,175	3,792	5,023	3,833	3,914	4,148	3,792
Improvements	10,095	5,543	6,308	4,731	4,222	6,604	1,904	1,176
Law	525	1,650	728	941	448	818	788	496
Net Total	62,255	59,280	55,818	53,063	50,570	55,210	53,938	50,365
Deducted Transfer Payments								
Land	502	241		224	37	12		85
Damages	319	265	276	287	176	190	249	180
Interest	20,745	20,490	18,683	20,887	18,625	19,661	18,590	21,280
Principal	4,169	3,088	4,865	3,784	6,387	3,023	2,297	1,550

TABLE XXIIA. Welsh Parliamentary Turnpike Returns (cont'd.)

	1849	1850	1851	1852	1853	1854	1855	1856
	£	£	£	£	£	£	£	£
Manual Labour	20,168	18,981	18,123	19,171	20,210	22,014	20,820	21,499
Tam Labour	2,147	2,120	3,478	3,737	2,798	2,750	2,521	2,749
Materials	15,848	15,426	13,995	13,676	15,336	14,783	15,636	16,821
Trade Bills	1,391	1,184	2,097	1,290	1,351	1,265	1,244	1,138
Treasurers Salaries	260	267	320	319	275	283	279	287
Clerks Salaries	1,602	1,615	1,604	1,585	1,620	1,638	1,648	1,638
Surveyors	3,377	3,169	3,214	3,255	3,202	3,149	3,180	3,142
Incidentals	3,447	3,755	3,033	3,636	3,376	3,876	3,518	2,585
Improvements	2,464	1,251	1,406	1,035	2,975	2,896	1,247	768
Law	471	1,539	1,775	446	298	330	131	324
NET TOTAL	51,175	49,307	49,045	48,150	51,441	52,984	50,224	50,951
Deducted Transfer Payments								
Land	23	30	2					
Damages	205	207	164	180	194	156	149	200
Interest	20,009	19,760	18,863	20,729	19,067	18,931	19,339	11,399
Principal	3,622	2,659	1,869	1,648	2,522	3,560	1,350	6,130

TABLE XXIIB. SCOTTISH PARLIAMENTARY TURNPIKE RETURNS

	1843	1844	1845	1846	1847	1848
	£	£	£	£	£	£
Manual Labour						86,302
Carriage						11,503
Materials	126,743	124,254	127,010	134,258		25,378
Trade Bills						6,787
Treasurers Salaries						2,254
Clerks Salaries	7,372	7,547	7,548	7,673	7,754	4,495
Surveyor	10,532	10,366	10,137	10,408	10,154	10,815
Incidentals	10,520	12,770	14,986	17,032	16,428	9,382
Improvements	19,540	20,089	26,235	21,733	21,380	26,924
Law	5,749	4,544	6,432	6,524	5,360	13,064
NET TOTAL	180,456	179,570	192,348	197,628	203,190	196,764
Deductions						
Land	132	149	202	162	361	414
Damage						914
Interest	52,271	48,357	47,378	47,550	48,864	48,836
Principal	44,337	43,693	43,886	49,556	35,904	81,966
Annuity						478
Watering Road						136

TABLE XXIIB. Scottish Parliamentary Turnpike Returns (cont'd.)

	1849	1850	1851	1852	1853	1854	1855
	£	£	£	£	£	£	£
Manual Labour	83,674	80,595	79,828	83,109	84,036	84,956	86,486
Carriage	9,075	8,342	9,222	8,857	8,672	9,367	9,548
Materials	21,934	23,574	24,401	21,062	20,493	25,875	26,988
Trade Bills	5,329	5,113	5,505		4,808	5,273	4,770
Treasurers Salaries	1,986	1,837	2,079	2,099	2,116	2,138	2,099
Clerks Salaries	4,589	4,831	4,710	4,669	4,656	4,768	4,786
Surveyor	10,562	10,497	10,613	10,501	10,860	11,672	11,439
Incidentals	9,382	9,169	12,011	13,706	9,305	9,145	10,325
Improvements	17,539	21,001	30,676	33,718	30,598	32,760	25,088
Law	6,329	5,823	5,843	5,069	4,749	3,587	5,026
NET TOTAL	169,399	170,782	184,888	182,790	180,293	189,541	186,555
Deductions							
Land	497	394	377	770	508	360	131
Damage	634	696	2,072	1,502	1,126	1,004	1,030
Interest	43,117	40,280	41,724	39,485	39,680	37,587	40,243
Principal	52,359	35,576	27,864	36,508	74,251	18,923	23,913
Annuity	490	436	477	522	524	500	500
Watering Road	214		497	259	336	424	443

TABLE XXIIC

BRITISH QUASI-NET TURNPIKE EXPENDITURE, 1750-1856

Year	England £	Wales £	Scotland £	Government £	TOTAL British Outlay £
1750-51	52,291	2,905	10,458		65,654
1751-52	64,171	3,565	12,834		80,600
1752-53	76,646	4,258	15,392		96,296
1753-54	87,696	4,872	17,539		110,107
1754-55	86,133	4,785	17,226		108,144
1755-56	92,284	5,126	18,456		115,866
1756-57	96,688	5,371	19,337		121,396
1757-58	90,594	5,033	18,118		113,745
1758-59	99,309	5,517	19,861		124,687
1759-60	107,709	5,983	21,541		135,233
1760-61	107,418	5,967	21,483		134,868
1761-62	106,127	5,895	21,225		133,247
1762-63	121,705	6,761	24,341		152,807
1763-64	116,452	6,469	23,290		299,018
1764-65	113,285	6,293	22,657	2,545	144,780
1765-66	140,146	7,785	28,029	3,097	179,057
1766-67	145,334	8,074	29,066	7,512	189,986
1767-68	134,185	7,454	26,837	5,982	174,458
1768-69	136,550	7,586	27,310	6,683	178,129
1769-70	136,147	7,563	27,229	7,186	178,125
1770-71	153,700	8,538	30,740	8,834	201,812
1771-72	156,200	8,677	31,240	9,073	205,190
1772-73	164,253	9,125	32,850	9,215	215,443
1773-74	171,985	9,554	34,397	8,198	224,134
1774-75	170,043	9,446	34,008	8,198	221,695
1775-76	144,745	8,041	28,949	8,198	189,933
1776-77	170,604	9,478	34,120	4,080	218,282
1777-78	204,051	11,336	40,810	4,080	260,277
1778-79	194,780	10,821	38,956	4,080	248,637
1779-80	207,367	11,520	41,473	4,764	265,124
1780-81	213,381	11,854	42,676	4,559	272,470
1781-82	227,762	12,653	45,552	4,080	290,047
1782-83	237,651	13,202	47,530	4,080	302,463
1783-84	223,613	12,422	44,722	4,340	285,097
1784-85	249,401	13,855	49,880	3,541	316,677
1785-86	262,277	14,570	52,455	3,197	332,499
1786-87	273,416	15,189	54,683	6,937	350,225
1787-88	336,684	18,704	67,336	5,858	428,582
1788-89	289,011	16,056	57,802	4,598	367,467
1789-90	318,142	17,674	63,628	4,885	404,329
1790-91	318,797	17,710	63,759	6,183	406,449
1791-92	312,453	17,691	63,690	4,712	404,546
1792-93	322,535	17,918	64,507	4,217	409,177

TABLE XXIIC (cont'd.)

Year	England £	Wales £	Scotland £	Government £	TOTAL British Outlay £
1793-94	327,946	18,219	65,589	4,073	415,027
1794-95	351,991	19,555	70,398	4,541	446,485
1795-96	350,744	19,485	70,148	4,740	445,117
1796-97	358,786	19,932	71,757	4,237	444,712
1797-98	390,517	21,695	78,103	3,263	493,578
1798-99	390,888	27,716	78,177	4,742	492,039
1799-1800	444,050	24,669	88,810	4,732	562,261
1800-01	467,196	25,955	93,439	4,484	591,074
1801-02	467,085	25,949	93,417	4,814	591,265
1802-03	497,867	27,659	99,573	5,040	630,139
1803-04	519,705	28,872	103,941	5,066	657,584
1804-05	540,404	30,022	108,080	8,417	686,923
1805-06	562,218	37,234	112,443	15,538	721,433
1806-07	579,008	32,167	115,801	15,353	742,329
1807-08	614,491	34,138	122,883	17,201	788,713
1808-09	613,263	34,070	122,652	18,963	788,948
1809-10	627,154	34,841	125,429	25,275	812,699
1810-11	667,502	37,083	133,500	25,515	863,600
1811-12	715,336	39,740	143,067	39,558	937,701
1812-13	734,068	40,781	146,813	24,344	946,006
1813-14	709,051	39,391	141,810	22,292	912,544
1814-15	727,261	40,403	145,452	33,704	946,820
1815-16	802,080	44,560	160,416	12,277	1,019,333
1816-17	799,166	44,398	159,833	5,193	1,008,590
1817-18	833,733	46,318	166,746	6,413	1,053,210
1818-19	828,453	46,025	165,690	8,754	1,048,922
1819-20	887,929	49,329	177,585	10,636	1,125,542
1820-21	882,473	49,026	176,494	13,226	1,121,219
1821-22	872,832	48,490	174,566	12,056	1,107,944
1822-23	982,682	54,598	197,536	13,926	1,248,742
1823-24	1,053,337	58,518	211,667	61,575	1,385,097
1824-25	1,110,475	61,693	223,095	389,206	1,784,469
1825-26	1,157,915	64,328	232,583	65,996	1,520,822
1826-27	1,102,526	61,251	221,505	99,058	1,484,340
1827-28	1,101,978	61,221	221,395	49,257	1,433,851
1828-29	1,120,511	62,250	221,100	51,244	1,455,105
1829-30	1,099,361	61,075	220,872	58,074	1,439,382
1830-31	1,092,133	60,674	219,426	26,806	1,399,039
1831-32	1,107,043	61,502	222,408	20,200	1,411,153
1832-33	1,109,154	61,619	221,830	27,695	1,420,298
1833-34	1,128,380	70,177	225,676	20,861	1,445,100
1834-35	1,163,355	65,849	232,671	28,514	1,490,389
1835-36	1,208,037	66,526	241,607	21,832	1,538,002
1836-37	1,262,971	56,320	252,594	19,142	1,591,027
1837-38	1,143,512	58,851	228m702	46,730	1,477,795

TABLE XXIIC (cont'd.)

Year	England £	Wales £	Scotland £	Government £	TOTAL British Outlay £
1838-39	1,140,854	65,409	228,170	35,586	1,470,019
1839-40	1,139,517	72,474	227,903	29,819	1,469,713
1840-41	1,047,491	62,255	209,498	22,651	1,341,895
1841-42	1,036,740	59,280	207,348	22,592	1,325,960
1842-43	955,045	55,818	180,456	24,222	1,215,541
1843-44	899,574	53,063	179,570	20,759	1,152,966
1844-45	866,704	50,570	192,348	21,676	1,131,298
1845-46	856,453	55,210	197,628	20,311	1,129,602
1846-47	841,904	53,938	203,190	18,708	1,117,740
1847-48	799,396	50,365	196,764	16,543	1,063,068
1848-49	775,933	51,175	169,399		996,507
1849-50	743,660	49,307	70,782		863,749
1850-51	729,407	49,045	184,888		963,340
1851-52	734,510	48,150	182,790		965,450
1852-53	767,572	51,441	180,293		993,306
1853-54	788,035	52,984	189,541		1,030,560
1854-55	754,366	50,224	186,555		991,143
1855-56	773,099	50,951	184,813		1,008,863

CHAPTER 6

ANALYSIS OF TURNPIKE ESTIMATES

The impact on the economy of the transport development set out in Table XXII falls into three categories: first, the direct and indirect benefits; second, the backward linkages; and third, the forward linkages.(1)

Some measurement of direct benefits has already been undertaken by Professor Willan and Dr. Albert as outlined above.(2) They calculated the reductions in some financial costs of transportation by road in the 18th and early 19th century, and the effect of this fall on real inputs. They were able to take into account such extraneous factors as the price of horse feed, and could gain some idea of such indirect benefits as increased speed and decreased seasonality.(3) Despite this their achievement is essentially impressionistic and reveals principally that although the statistical techniques for measuring most direct and indirect benefits are clear, the dearth of sources renders them inapplicable.(4)

An accurate calculation of social saving should proceed concern by concern reallocating resources to the next most efficient transport method, and the difference between the total costs of the two systems is the measure of direct benefits. This is relatively

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(1) Fishlow, op. cit., pp. 14-17.
(2) Willan, op. cit. Albert, op. cit. see above, pp.74-75.
(3) Fishlow, op. cit. p.23.
(4) Albert, "The Justices' Rates for Land Carriage", op. cit.

straightforward for estimating the effects of railways where the alternatives were principally inland waterways and coastal shipping, with some use of roads.(1) In the case of canals themselves the means of transport they supplanted was generally road carriage or river navigation. With turnpikes the substitute is presumably the pre-turnpike unimproved system of roads. In this respect some idea of social saving can be gained by comparing the efficiency of the road system through time, taking into account the resources necessary to effect any improvement in efficiency. To do this it would be necessary to take the estimates of turnpike investment in Table XVII back at least to 1700. There was considerable turnpike activity in the years 1700-1750,(2) although the sums involved were much smaller absolutely than the sums spent later. It would then be possible to cumulate the total turnpike expenditure from the beginning of the system. The next step would be to derive a full picture of the number of vehicles, fares, and transport facilities as Bates(3) has recently done for stage coaches. This would be very difficult for the 18th century, even with the fullest use of the relatively few directories then produced.

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(1) See both Fishlow, op. cit. and Fogel, op. cit.
(2) See App. A and B Dates of origin.
(3) Alan Bates, Stage Coach Directory of 1836, (Newton Abbot, 1969). See also, G.C. Dickinson, "Stage Coach Services in the West Riding of Yorkshire", J.T.H., Vol. iv, 1959-60. W.H. Hart, "Notes on Coach Travel", J.T.H., Vol. IV, and C.G. Harper, Stage Coach and Mail in Days of Yore, 1903, and Maudsley, Highways and Horses, op. cit.

Some tax statistics for carts, carriages, and horses have survived, and are set below in Tables XXIII and XXIV. Unfortunately it appears that the original detailed manuscript returns for these taxes have been lost or destroyed,(1) and the only figures available are either the few returns printed in parliamentary papers(2) or contemporary commercial works of reference.(3) The parliamentary material reveals the total yields of the duties for most of the period of their operation, whereas a breakdown in depth of the numbers of vehicles has only been discovered for a few years.

The system of taxation for both carriages and horses distinguishes to a considerable extent between 'private' and 'public' use. 'Public' in this limited sense implies all animals or vehicles plying for hire, whilst 'private' included all the rest. Carriages and horses used privately make up the yield figures set out in the first columns of Tables XXIIIA and XXIVA respectively. A detailed breakdown of the numbers making up these tax yields can be found in Tables XXIIIB and XXIVB below. The two remaining columns in Tables XXIIIA and XXIVA below show the returns from the duties imposed on the public stagecoach and post-horses system. Post-horses in this context should be understood as those horses for hire at inns licenced for the 'posting'

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(1) After extensive enquiries at the Public Record Office it appears that the original manuscript returns were destroyed in the 19th century.
(2) P.P.'s 1812, IX, 243. 1819, XV, 423-5. 1821, XVI, 323, 335. 1830, XXV, 225, 231.
(3) E.g. Porter's Progress of the Nation.

business. "Private" vehicles and horses (column one of both Tables) were merely subject to annual licences varying with the nature of the horses and vehicles and the number owned by an individual. The "public" horses and vehicles appear to have been subject to these duties, but in addition they had to pay for another licence in order to ply for hire, and a varying mileage duty.[1]

However, in the present context the interest is not with the complexities of the tax system of the period, but is merely concerned to demonstrate how the figures illuminate the great increase in travelling over the century 1750-1850. Despite the variations in tax rates and the farming of the post-horse duties the figures as a whole do show a considerable upward movement throughout the period when due allowance is made for inflation. Moreover, according to the First Report of the Commissioners of Inland Revenue[2] the returns are reliable since the chances of avoidance of these duties were slight, except in the case of post-horse mileage. Private carriages, carts, and horses were tangible objects with definite owners, and stage-coaches generally ran on specified routes. Furthermore, tax administration was becoming increasingly efficient with the introduction of income tax during the Napoleonic War period. The inherent administrative problems of income tax were tremendous compared with a relatively straightforward tax on vehicles.

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(1) S. Dowell, A History of Taxation and Taxes in England, 2nd. ed, 1888, Vol. 3, pp.40-58, pp.195-209, pp.225-230.
(2) P.P. 1857, IV, 65.

TABLE XXIIIA

CARRIAGE RETURNS

Year	Private Carriage Duty in Great Britain £		Stage Carriage Duty in Great Britain £	
1780-81	(Duty first imposed 1747			
1781-82	no returns until 1792)			
1782-83				
1783-84				
1784-85				
1785-86				
1786-87				
1787-88				
1788-89				
1789-90			55,513	(Licence 5s., Duty 1d. per mile)
1790-91			55,867	
1791-92			58,437	
1792-93	218,205		62,131	
1793-94	219,435		60,186	
1794-95	220,649		60,174	
1795-96	225,116	10% increase in duty	58,718	
1796-97	258,265		59,904	
1797-98	260,967		94,026	(Licence 5s. Duty 2d. per mile)
1798-99	248,557	Selective duty increases	110,490	
1799-1800	248,483		121,777	
1800-01	264,119		111,424	
1801-02	269,757		113,760	
1802-03	279,540	Selective increases in duty	121,868	
1803-04	299,784	Selective increases	128,279	
1804-05	310,042		132,573	(Licence 5s., 6s., 7s., 8s., 9s. depending on no. of passengers)
1805-06	327,683		153,094	
1806-07	339,659	10% increase in duty	155,464	
1807-08	429,018		159,232	
1808-09	454,988	Selective increases	175,302	
1809-10	491,180		199,149	
1810-11	471,822		185,992	
1811-12	431,829		191,220	
1812-13	478,820	10% increase in duty	187,663	
1813-14	504,321		178,971	
1814-15	510,466		194,558	
1815-16	498,375		223,608	(Duty 2½d., 3d., 4d., 4½d., 5½d., per mile on no. of passengers)

TABLE XXIIIA (cont'd)

Year	Private Carriage Duty in Great Britain £		Stage Carriage Duty in Great Britain £	
1816-17	460,852		274,840	
1817-18	498,144		264,664	
1818-19	502,683	(Carts subject to duty)	256,103	
1819-20	512,724		260,542	
1820-21	501,834		273,477	
1821-22	504,986		279,601	
1822-23	529,896		311,283	(Duty 1d., 1½d., 2d., 3d., 4½d. per mile)
1823-24	446,727	(50% reduction in duty)	345,822	
1824-25	288,401	(Carts and new carriage exempt)	361,542	
1825-26	300,992		362,739	
1826-27	304,410		358,977	
1827-28	332,091		394,490	
1828-29	352,579		407,532	
1829-30	374,688		426,489	
1830-31	397,992		418,604	
1831-32	392,962		422,541	
1832-33	408,449		414,074	
1833-34	406,512		458,028	(Duty 1d., 1½d., 2d., 2½., 3d., 3½d., 4d., etc. on no. of passengers)
1834-35	409,127		500,717	
1835-36	424,161		509,846	
1836-37	450,055		524,450	
1837-38	441,318		501,581	
1838-39	442,861		474,378	
1839-40	447,727		443,167	
1840-41	481,624		342,593	
1841-42	464,721		313,891	
1842-43	443,038		287,671	(Duty 1½d.)
1843-44	429,053		243,333	Licence £3 3s.
1844-45	424,217		242,728	
1845-46	421,307		253,668	
1846-47	419,979		240,643	
1847-48	428,888		246,286	
1848-49	416,594		205,175	
1849-50	411,821		203,834	
1850-51	402,748		211,247	
1851-52			228,591	
1852-53			227,461	

TABLE XXIIIB

Number of Carriages

	1810	1811	1812	1813	1814
4-wheeled carriages	16,184	16,394	16,596	16,713	16,777
Post-chaises, etc.	5,796	5,663	5,697	5,516	5,521
Stage Coaches	1,343	1,415	1,355	1,270	1,273
2-wheeled carriages	27,464	26,845	27,287	27,062	27,347
TOTAL	50,787	50,317	50,935	50,561	50,918
Carts	20,464	19,913	19,141	18,783	18,491
New vehicles	3,713	3,731	3,974	3,744	3,636
TOTAL	74,964	73,961	74,050	73,088	73,045

	1825	1826	1827	1828
4-wheeled carriages	21,514	24,058	25,841	28,227
Post-chaises	6,273	6,587	6,858	7,123
Stage coaches	2,747	2,954	3,070	2,996
2-wheeled carriages	39,660	43,002	45,750	48,753
TOTAL	70,194	76,601	81,519	87,099

TABLE XXIVA

Horse Returns

Year	Private Horses		Post Horses	
1780-81			75,761	(1d. per horse per mile or 1s. per horse and 5s. licence for postmaster)
1781-82			85,703	1s. 6d. per horse
1782-83			82,304	
1783-84			84,500	
1784-85	(England and Wales only until 1797)		92,609	
1785-86			87,795	(1½d. per horse per mile or 1s. 9d. per horse)
1786-87	117,023		114,665	
1787-88	108,574		125,690	
1788-89			125,690	
1789-90		Rates change selectively	125,690	
1790-91	112,398		134,350	
1791-92			134,350	
1792-93	117,221		134,350	
1793-94	116,033		139,680	
1794-95	115,426		139,680	
1795-96	115,895		139,680	
1796-97	302,342	Selective and 10% increase in rates	142,120	
1797-98	451,281	20% increase in rates and Scotland selective increase in rates	142,120	
1798-99			142,120	The post horse duties were farmed during these years
1799-1800	576,612		156,200	
1800-01	672,834		212,780	
1801-02	657,301		212,059	
1802-03		100% increase in rates	217,926	
1803-04	1,134,727		248,698	
1804-05	1,066,942		186,143	
1805-06	1,072,679		207,997	
1806-07	1,157,765	20% increase in rates	180,692	
1807-08	1,260,250		208,030	
1808-09	1,027,095		245,902	
1809-10		Rates increased selectively	207,850	
1810-11	1,323,243		238,054	
1811-12	1,314,744		259,385	
1812-13	1,529,461	Rates increased selectively	224,273	

TABLE XXIVA (cont'd)

Horse Returns

Year	Private Horses		Post Horses	
1813-14	1,522,772		247,467)	
1814-15	1,521,581		274,710)	
1815-16	1,501,748		219,546)	
1816-17	1,225,596		227,424)	
1817-18	1,209,949		243,853)	
1818-19	1,243,185		224,827)	
1819-20	1,240,160		239,839)	
1820-21	1,216,770		243,084)	
1821-22	1,297,019		242,703)	
1822-23	821,849	50% decrease in rates	242,334)	
1823-24	633,719		261,873)	
1824-25	405,244		236,295)	The post horse duties
1825-26	361,273		232,651)	were farmed during
1826-27	393,537		257,293)	these years
1827-28	401,930		225,864	
1828-29	400,715		238,858)	
1829-30	397,688		252,772)	
1830-31	425,147		220,357)	
1831-32	417,856		231,863)	
1832-33	419,818		257,955)	
1833-34	414,278		220,905)	
1834-35	412,950		228,707)	
1835-36	386,488		241,165)	
1836-37	390,397		228,443)	
1837-38	380,727		266,528	Licence 7s. 6d., duty 1½d. per horse + 1s. to 2s. 6d. per journey
1838-39	387,567		242,684	
1839-40	384,505		228,037	
1840-41	416,278		214,248	
1841-42	414,799	10% increase in rates	198,034	
1842-43	388,313		177,141	
1843-44	376,107		166,599	
1844-45	374,766		170,038	
1845-46	374,130		178,609	
1846-47	374,076		173,982	
1847-48	385,835		162,689	
1848-49	379,289		150,007	
1849-50	375,442		149,532	
1850-51	367,206		148,045	
1851-52			150,588	

TABLE XXIVB. NUMBER OF HORSES

	1808	1809	1810	1811	1812	1813	1814	1821
Carriage and Riding	225,591	226,637	239,196	236,592	234,288	229,775	228,579	174,790
Horses for Hire			1,336	1,259	1,365	1,332	1,454	1,616
Race Horses			534	540	541	572	560	579
Agriculture			889,750	891,875	740,079	726,735	722,863	832,726
Bailiffs and Butchers								4,641
Small Farmers			34,462	34,471	24,563	36,275	28,010	
Not wholly Agriculture					151,945	169,275	177,025	135,542
Short Horses					35,239	31,745	35,816	11,536
TOTAL	225,591	226,637	1,165,278	1,164,437	1,188,020	1,195,709	1,204,307	1,161,430

	1823	1825	1826	1827	1828	1838	1840	1844
Carriage and Riding		171,477	175,068	174,806	178,841	152,973	154,286	145,846
Horses for Hire		1,702	2,006	1,948	2,001	2,201	2,179	1,859
Race Horses		711	704	708	780	1,119	1,095	1,098
Small Horses		19,121	20,237	20,866	21,932	22,456	22,594	21,736
Bailiffs Horses		1,251	1,278	1,296	1,391	69	55	40
Butchers Horses		4,074	4,152	4,205	4,488	4,389	4,419	3,281
Not chargeable but not exempt		112,989	114,339	114,282	117,609			129,709
TOTAL	305,275	311,295	317,784	318,111	327,504	183,207	184,628	303,569
Farmers renting under £500 p.a.						48,635	49,709	
Husbandry						387,211	392,749	
Stage Coaches, etc.						27,100	24,170	
Volunteers Corps						13,164	11,877	
Exemption on other grounds						59,375	60,849	
						535,485		

If the "private" carriage returns from 1747[1] had survived these would need to be treated with some caution, but the exigencies of the 1793-1815 war had a considerable impact on the efficiency of the tax gatherers.[2] Vehicles for example, were required to have the name and address of their owner displayed boldly on the side[3] and in the smaller communities of the time it is likely that local jealousies would have helped to enforce payment of the tax. A further symptom of the efficacy of the system is shown by the exemptions eventually granted to horses in agriculture and to the horses of farm bailiffs. The reliability of the stagecoach returns in column two of Table XXIVA would appear to be amply confirmed by their peak in 1837, the same year as the maximum turnpike revenues, both falling off rapidly thereafter under the impact of the railways. Post-horses were similarly affected, but private carriages and horses were apparently little influenced. Presumably private carriage ownership continued to increase for reasons of status with growing prosperity, and stagecoach and post-horses were replaced by increasing numbers of cart horses to service the railways.

From the point of view of capital formation the most interesting aspect of the vehicle returns is the figures in Table XXIIIB giving under, New Vehicles, the gross addition to total stock in each year.

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(1) S. Dowell, op. cit. pp.197-198.
(2) S. Dowell, ibid.
(3) S. Dowell, ibid, p.205.

This constitutes in effect the real gross investment in each year with no allowance for depreciation or scrapping. It is therefore much to be regretted that this forerunner of purchase tax was repealed in 1824 and therefore, as with the tax on carts, does not appear thereafter.

Some idea of the renewal of the stock of horses can be estimated on the basis of an average life of so many years in relation to the total stock shown in Table XXVB for 1810-1814. But since the majority of horses were clearly employed in agriculture and not transport, such an estimate has not been attempted here. Perhaps the most interesting aspect of the horse tables is the relative proportion of animals engaged in transport, almost one quarter of those used in agriculture.

Once an analysis of prices, vehicles, and ton miles has been made for various benchmark dates, this would then have to be compared with the projected development of the unimproved road and transport system. Given that this may be possible, even Fishlow has to admit that some of the effects of cheaper transport are incalculable.(1) For example, it expands markets and increases leisure in some ways that defy quantification, although ingenious statistical devices can solve some problems. Certainly several of the second round indirect multiplier benefits and forward linkages causing induced capital formation and expansion in other sectors can be calculated from the increased capitalization of land values. Dr. Albert has attempted this in a

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(1) Fishlow, op. cit. p.24.

sense with his analysis of the causal relationships between turnpikes and enclosures,[1] and others have tried to trace the forward linkage effects of the development of turnpikes on the industrial growth of particular regions.[2] It must therefore be concluded that in the present state of knowledge the measurement of direct benefit or forward linkages is not feasible owing to lack of source material, but it may become possible if more research is carried out in the future.

Backward linkages are concerned with the specific resource demand of an innovation or improvement. In the case of turnpike roads it can be clearly seen from Tables XVII and XVIII that the highest demand was for labour. It is likely that the proportion of team labour to manual labour was greater in the 18th century,[3] but equally how effective Macadam's propaganda on this subject had been by 1834, it is very difficult to judge. He himself had to admit that some roads could not be 'lifted',[4] and this may well have been so in more cases than he was prepared to allow. Moreover, when a road surface had been 'lifted' once, new materials had to be brought thereafter and it is feasible therefore, that carting decreased with more 'lifting' in the 1820's but had reasserted itself by the 1830's. If the extrapolations

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(1) Albert, op. cit. pp.183-184.
(2) Annie Thomas, op. cit.
(3) See above, p.135.
(4) Macadam, Remarks on Road Making, op. cit. p.107. 'Lifted' was the contemporary term used for digging up a road and breaking up the stone thus uncovered to make a Macadam surface. The stone already on the road could only be used in this way once.

in Table XVIII are accepted it is possible to gain some idea of the number of day labourers employed on the roads in the period 1750-1856.

The average wage of a road labourer as derived from the account books examined seems to have been around seven shillings per week from 1750-1790 and thence to a maximum of 14 shillings per week. Such averages are notoriously difficult and misleading to use;[1] but these wages for road labourers do seem to compare reasonably with the average wage for contemporary agricultural labourers.

However, if they are accepted as set out in Table XXV below then it is possible to gain some idea of the numbers of labourers involved. For example, in 1750 the sum $\frac{16,340 \times 20}{52 \times 7}$ gives 897 as the number of men employed that year, and so forth. Up to 1790 comparison with the mileage figure in Table XV yields a ratio of approximately one man to every two miles, but thereafter the ratio improves almost 1: 1 as more effort was put into the roads.

It is possible that from 1795 turnpike labourers received wage subsidies from the poor rates in a manner similar to agricultural labourers. It is probable therefore that the turnpikes were being subsidized from the poor rates as were the parish highways more directly.[2] For example, if the average turnpike was paying 11/- per week for a labourer in 1800 and the average wage subsidy amounted to 2/- per week,

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(1) E.P. Thompson, op. cit. p.246, passim
(2) See above, pp. 52-54.

then the total subsidy per annum on the basis of 6,598 labourers from Table XV would be £34,216. However, as poor rate wage supplements seem to have varied so widely from county to county in addition to being related to the size of a labourer's family, no such calculations have been included in the present estimates.(1) It is merely emphasized that the probability of wage supplements being paid to turnpike labourers during the Napoleonic war period will render the present turnpike estimates an under-estimate of the real burden on the economy.(2)

Table XXV also illustrates clearly that the turnpike labour demand was relatively slight in proportion to the total population at this period.(3) Nevertheless these labourers were only concerned with a fraction of the total road system,(4) and formed only a part of the total labour demand of contemporary road transport with its considerable manpower requirements in coaching and carting.

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(1) Blaug, op. cit., J.D. Marshall, op. cit.
(2) See below, Ch. 9.
(3) Mitchell and Deane, op. cit. pp. 5,8,60.
(4) See below, Ch. 7.

TABLE XXV. Number of Labourers

	Total Spent on Labour	Weekly Average Wage	Number of Men
	£	s.	
1750-51	16,340	7	897
1755-56	30,761	7	1,690
1760-61	35,806	7	1,967
1765-66	46,715	7	2,566
1770-71	41,233	7	2,265
1775-76	48,248	8	2,319
1780-81	71,127	8	3,419
1785-86	87,425	8	4,203
1790-91	106,265	9	4,541
1795-96	116,914	9	4,996
1800-01	155,732	11	6,598
1805-06	187,406	14	5,148
1810-11	222,500	14	6,112
1815-16	267,360	12	8,569
1820-21	294,157	11	12,464
1825-26	385,971	11	16,354
1830-31	364,044	11	15,425
1835-36	375,504	11	15,911
1840-41	360,765	11	15,286
1845-46	292,603	11	12,398
1850-51	249,773	11	10,583

Salaries can be broken down from Tables XVII and XVIII in a similar fashion to give some idea of the numbers of treasurers, clerks and surveyors. The average salaries are particularly difficult to estimate in these cases. Many treasurers received no official remuneration, apart from any interest they could earn on the balances they held. Some clerks combined the function of treasurer with similar remuneration, and the number of surveyors was greatly complicated by the rise of the professional consultants. The surveyors' salaries set out below are those of the average 'foreman' surveyor, and since the fee

of the consultants are not taken into account there is some over-estimate of the number of surveyors employed. Nevertheless these figures do provide some guide to the impact of the turnpike system on the professional classes and its demand for legal and technical skill. It is likely that the number of clerks shown accounted for a large proportion of the total number of solicitors in the country, as set out in Table XXVI below.

On the basis of the ledgers examined, the assumption has been made that the item for materials in Tables XVII and XVIII consisted entirely of gravel. The major error in this assumption is that roads did use stone chippings if it was cheap and easily obtainable.(1) and turnpikes in towns did occasionally go to the expense of full-scale paving. Nevertheless the accuracy of this method seems supported by the journals investigated over the country as a whole and it is certainly valid for the 18th century. Taking the figures per load at various dates as set out in Table XXVII below the figures for loads per year emerge. If a load of gravel is taken as a yard of gravel then the impact of the turnpike demand was considerable.

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(1) Macadam, op. cit.

TABLE XXVI. NUMBER OF CLERKS, etc.

	Clerks			Treasurers			Surveyors		
	Total Salaries	Average Salaries	No.	Total Salaries	Average Salaries	No.	Total Salaries	Average Salaries	No.
Year	£	£ p.a.		£	£ p.a.		£	s. p.w.	
1750-51	1,025	15	68	275	10	27	2,614	10	100
1755-56	809	15	53	485	10	48	4,614	10	177
1760-61	2,106	15	140	565	10	56	5,370	12	169
1765-66	2,747	15	183	737	10	73	7,007	15	179
1770-71	3,013	15	200	808	10	81	7,685	20	147
1775-76	2,838	15	189	761	10	76	7,237	20	139
1780-81	4,183	20	209	1,123	15	74	10,669	20	205
1785-86	5,142	20	257	1,308	15	87	13,113	25	201
1790-91	6,250	20	312	1,677	15	111	15,939	30	204
1795-96	6,877	20	343	1,846	15	123	17,537	35	192
1800-01	9,160	25	366	2,458	15	163	23,359	35	256
1805-06	11,023	25	440	2,959	20	147	28,110	35	308
1810-11	13,088	25	523	3,513	20	175	33,375	35	366
1815-16	15,725	25	629	4,221	20	211	40,098	35	440
1820-21	17,303	20	865	4,644	15	309	44,123	30	565
1825-26	22,703	20	1,135	6,094	15	406	57,892	30	742
1830-31	21,414	20	1,070	5,747	15	383	54,605	30	700
1835-36	23,481	20	1,174	6,411	15	427	60,853	30	780
1840-41	23,312	20	1,165	5,793	15	386	60,166	30	771
1845-46	23,752	20	1,187	5,619	15	374	56,109	30	719
1850-51	23,983	20	1,199	5,438	15	362	56,165	30	720

TABLE XXVII

MATERIALS

Year	Total on Materials £	Average Shillings per Load	Number of Loads
1750-51	10,458	10	20,916
1755-56	18,456	10	36,912
1760-61	21,483	10	42,966
1765-66	28,029	10	56,058
1770-71	30,740	10	61,480
1775-76	28,948	10	57,896
1780-81	42,676	10	85,352
1785-86	52,455	15	69,940
1790-91	63,759	15	85,012
1795-96	70,148	20	70,148
1800-01	93,439	20	93,439
1805-06	112,443	25	89,954
1810-11	133,500	25	106,800
1815-16	160,414	25	128,331
1820-21	176,493	20	176,493
1825-26	231,582	15	308,776
1830-31	218,425	15	291,233
1835-36	208,360	15	277,813
1840-41	213,896	15	285,194
1845-46	184,032	15	245,376
1850-51	159,303	15	212,404

The remaining items of importance in their impact on the economy were tradesmens' bills and incidentals. Probably the principal payment constituted about half of the total of these two, were for such tools as shovels, picks, wheelbarrows, and so forth, with a growing number of hammers as Macadam's methods were adopted. The remainder is accounted for by bricks for culverts, wood for fences and gates, stones for bridges, paint, stationery, advertising, printing, candles and so

forth. Since the items under these headings varied so widely from trust to trust it has not been thought worth while to attempt a breakdown.

It can be concluded from Tables XXV-XXVII that the specific resource demands of turnpikes in backward linkages on the econony were considerable in total but regular and unspectacular compared with canals or railways.

CHAPTER 7

INVESTMENT IN PARISH ROADS, URBAN STREETS, AND BRIDGES

Parishes were legally responsible for the maintenance of all roads within their boundaries throughout the period 1750-1850. This obligation was partly superseded by the gradual[1] establishment of turnpike trusts for most main roads.[2] But the turnpiking of a road did not absolve a parish from contributing to its maintenance and if the trustees proved incompetent the parish was legally responsible and indictable when the road fell into decay.[3] Thus a position of extreme injustice could be reached where the mortgagees of the tolls had taken over a turnpike road, as occurred with the Rochdale - Bury trust in the 1820's.[4] In such a case the creditors were entirely concerned with devoting the total receipts of the toll to the payment of interest and the repayment of the principal. No money from the tolls was spent on the road which therefore had to be maintained by the same parishioners who also had to pay tolls.

In any case parishes were supposed to make a contribution from their statute duty and highway rate to any normally functioning

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(1) See, Albert, op. cit. for a modern analysis of the development of the turnpike system in a far more rational manner than the Webbs had assumed.
(2) See above, p.104, passim.
(3) Webbs, op. cit. p.142-143.
(4) G.H. Tupling, op. cit. See also, P.P. 1849, XLVI, 339, for details of trusts taken over by the mortgagees of the tolls during the previous thirty years.

turnpike roads which ran through their boundaries.[1] The money paid was supposed to be calculated on the basis of a proportion of mileage of turnpike roads to the remainder of general parish highways. However, the situation was extremely confused and the majority of turnpikes did not trouble to claim composition although some continued to do so when they were no longer entitled to do it.[2]

In towns relationships between authorities were rendered even more ambiguous since turnpike and parishes were often joined by improvement commissioners who were generally responsible for the whole road surface as well as the foot-pavement.[3] Thus the highway returns for the years 1837-39[4] show that improvement commissioners were then responsible for 2,868 miles of roads as against 19,666 miles of turnpikes and 96,661 miles of parish highways.

Moreover it appears that parishes were in any case only responsible for 'ancient ways'[5] and were under no compulsion to construct or maintain new streets, despite full powers to make new householders contribute in statute duty or composition. When new buildings were put up piecemeal by individual proprietors very little tended to be done to the streets or any other amenities unless the new houses

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(1) See above, pp.49-50.
(2) G.H. Tupling, "Lancashire Turnpikes", op. cit. p.50.
(3) F.H.W. Shepherd, op. cit. pp.241, 283.
(4) P.P. 1841, XXVII.
(5) F.H.W. Shepherd, op. cit.

fronted a turnpike,[1] or the owners managed to persuade a parish to take action,[2] or the area already possessed active improvement commissioners.[3] A similar rife confusion of authorities extended from street maintenance to responsibility for sewers, with commissioners for sewers overlapping with improvement commissioners, parishes, and municipal corporations.[4] A further disturbing factor in the repair of streets and pavements in towns was the totally unbridled destructive efforts of the private water-works and gas companies when laying and repairing their mains.[5]

On big urban estates there was generally a clear liability imposed by the landlord on the builder to provide amenities and to pave to the middle of the road fronting each house constructed.[6] In practice the builders seem to have persuaded the local improvement commissioners to do this work, the commissioners reimbursing themselves from a rate on the householders concerned. Where no suitable body was available to assume the responsibility for constructing and maintaining streets, the landlord often obtained an act to establish a new authority for the purpose.[7] Therefore it would appear that in higher class districts urban streets were generally relatively well maintained, whereas

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(1) A.J. Clark, op. cit.
(2) F.H.W. Shepherd, op. cit, p. 245.
(3) D.J. Olsen, Town Planning in London: The Eighteenth and Nineteenth Centuries, (New Haven, 1964).
(4) Webbs', Statutory Bodies for Special Purposes, op. cit. Ch. 1.
(5) Ibid, p. 90. F.H.W. Shepherd, op. cit. p. 252.
(6) D.J. Olsen, op. cit. p. 47. Although it seems that later builders were forced to pave etc. themselves. Webbs', op. cit.
(7) D.J. Olsen, op. cit. It must be emphasized that large urban landlords were the exception rather than the rule outside London. See also, C.W. Chalklin, "Urban Housing Estates in the Eighteenth Century", Urban Studies, Vol. 5, No. 1.

in working class areas the streets seem to have remained largely in their 'natural' condition with no authority taking any interest.[1] This total negligence is amply confirmed by contemporary eye-witness accounts[2], and undoubtedly contributed to the high mortality rate of expanding early Victoriam cities where unpaved streets were never cleaned.[3] It is more than likely that some working-class districts were cleared of refuse during the period of prosperity for parishes when 'dust contractors' paid rent for the privilege of keeping districts clean.[4] But this interlude, the side-effects of which almost defy imagination,[5] was relatively brief and the conditions of working-class districts and their amenities seem to have been totally ignored by all authorities until there was a cholera outbreak.[6]

It is clear therefore, from the foregoing analysis that in the total absence of any parliamentary returns dealing with urban street construction it would be desirable to examine the financial record of the chaos of improvement commissioners, municipal corporations,[7] parishes

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(1) Webbs, op. cit. p.297.
(2) Webbs, ibid.
(3) A. Weber, op. cit.
(4) Webbs, ibid, pp. 334-340.
(5) Webbs, ibid, p.339
(6) Apart from schemes to eliminate working-class areas completely. See, H.J. Dyos, "Urban Transformation; a Note on the object of Street Improvement in Regency and Early Victorian London", International Review of Social History, Vol. 2, 1957, Part II. In addition some of the big urban landlords did bestir themselves to deal with slums on their property in order to maintain the air of gentility they desired. D.J. Olsen, op. cit. pp.126-143. In other cases as at Blackfriars and Westminster Bridges yet another body, the Bridge Authorities took extensive powers to construct new streets as part of developing the bridge approaches. See P. Carson, op. cit.
(7) Although usually content to leave paving. etc. to Improvement Commissioners, they were active sometimes as in the City of London. Webbs, op. cit. p.286, and see App. D.

and builders concerned in order to form any reasonably comprehensive estimate of expenditure. Unfortunately much of the relevant material has been lost or destroyed for the period under investigation.(1) The present inquiry has thus confined itself to dealing with parish records.

For parish records there is a considerable quantity of material available. There are various parliamentary returns from 1812(2) based on information supplied by parish surveyors. But prior to 1812 it has been necessary to examine the surveyors' accounts for individual parishes. It is easier to extract figures from these than from turnpike account books because there are no transfer payments to be deducted.(3) Ideally, and with due consideration for the vagaries of 18th century accounting procedure, the surveyors' account books from all the 15,000 odd(4) parishes in the country should have been examined. However, the incidence of survival of highway surveyors' account books was found to be poor since it would seem that they were not highly valued and were frequently casually destroyed, not from any desire to conceal corruption but simply because keeping them served no apparent purpose at the time.(5)

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(1) See above, p. 59. Although the parliamentary returns and therefore the extrapolated estimates appear to include road expenditure by Improvement Commissioners, see, P.P. 1818, XVI, 255.

(2) P.P. 1818, XVI, 255, Returns for 1813-15. P.P.1839,XLIV,Return for 1827 P.P. 1841, XXXVII, 79, Returns for 1837-40. P.P. 1849, XLVI, 155, 159. Returns for 1845. P.P. 1852, XLIII, 1, 7. Returns for 1850.

(3) See above, pp. 29, 50.

(4) P.P.'s as footnote 2.

(5) The survival rate also depends to a great extent on the average humidity of a county. Counties such as Devon and Cornwall in which humidity is very high have experienced far greater destruction of documents by damp than relatively dry counties such as Derbyshire.

Even today they are possibly the most tedious and uninspiring of all the parish officers' records,[1] being for the most part endless lists of payments for gravel and labour. Thus it appears that only about a quarter[2] of the total number of parishes investigated had any waywardens' account extant. However, unlike turnpike records, parish material has the further problem of accessibility. For many parish records have not been collected into county record offices but remain with local incumbents in the individual villages, which tends to complicate the problem of a large-scale survey.

It is therefore necessary to be selective: Berkshire, Essex, Hertfordshire and Warwickshire, have gathered almost all parish surveyors' account books still extant within their boundaries. Northamptonshire has also been used because a reasonable sample of books has been accumulated. Of the other counties examined Cornwall has relatively few parish records surviving, due to destruction by damp; Buckinghamshire, Cambridgeshire, Derbyshire, Leicestershire, Lincolnshire, Norfolk, Stafforshire and Surrey have at present gathered too few waywardens' account books into any central repository to make a viable sample feasible.

For the 18th century estimates of parish surveyors expenditure have therefore been based on the material found in Berkshire, Essex

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(1) F.G. Emmison, Guide to the Essex Record Office, Introduction, 1963 Edition.

(2) This estimate is based on the counties examined, which had collected most existing records.

Hertfordshire, Northamptonshire and Warwickshire.[1] The total number of parishes in each county in the period under review is known but unfortunately parliamentary sources do not yield the length of road in each parish, although details of mileage are to be found in some account books and were obviously returned for some parliamentary investigation.[2] Therefore it was impossible to determine the mileage relationship between the total number of parishes and the sample parishes in each county. Even if this had been possible such a correlation might well have been severely affected by degrees of urbanization. In Essex, for example, expenditure varied from £182 for Southminster[3] in 1789-90 to £6 for Wennington[4] in the same year, or from £139 for Thaxted[5] in that year to £13 for Tolleshunt Major.[6] Such differences are clearly a reflection of urbanization rather than mileage.

On this basis the method used in Essex was to extract figures from the extant account books covering the period 1750-1830

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(1) A major objection to using these counties as a sample base for 18th century parish totals lies in the exclusion of Middlesex and any northern county. London parish surveyors accounts are still strewn among various local libraries and at present the northern counties have generally been less successful in collecting parish records from incumbents. Full details of parish expenditure gathered for the base counties and for some of the others are to be found in App. IV.

(2) In some cases parish roads were measured as the whim of an efficient surveyor but in several other cases it is stated that the measurement was carried out for parliamentary returns, viz: in Essex, Gt. Clacton, D.P. 179/21/1, Ingatestone D.P. 31/21/1, Great Leigh D.P. 137/21/1-4, Sandon D.P. 253/21/1, E.R.O. In Warwickshire Hunningham D.R. 179/2, Barton D.R.O. 80/5, Farnborough D.R.O. 30/ A/11, W.R.O.

(3) D.P. 259/21/1,2. E.R.O.

(4) D.P. 158/21/2. E.R.O.

(5) D.P. 16/21/14. E.R.O.

(6) D.P. 240/21. E.R.O.

for 120 parishes. In some cases the existing records cover only a few years and the remaining years have been interpolated by averaging backwards or forwards from the nearest five years. For example, the first account book for Chelmsford starts in 1752-53,[1] and the previous two years were averaged from 1752-57. There is no account book covering 1768-80 but this is remedied by averaging 1762-67 and 1780-85 and taking the mean. Account books for Hatfield Broad Oak[2] in the same county only start in 1789 and it has therefore been necessary to take an average for the previous years from 1789-94. An average extrapolated over 40 years is open to far more objections than over 10 years, but patterns of expenditure pre-1790 seem to have remained relatively stable. This is the impression derived from the parishes where a complete series has survived.[3]

Extrapolating backwards before 1790 from the Napoleonic War period is very dubious owing to the inflation in the years from 1793 to 1815. and the process has not been carried out from parish account books with the first entry in 1810 or thereafter. It was decided on a basis of comparison with full series that such a method of extrapolation would be rendered less accurate by including weights for inflation because statute duty and composition tended to be customary. This doubtful extrapolation from an inflationary era affected about a fifth of the parishes examined, and it seems preferable to attempt to make some use

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(1) D.P. 94/21/1-3. E.R.O.
(2) D.P. 1/20/1,2. E.R.O.
(3) See App. D.

of this material rather than to jettison it on the grounds, not very persuasive in this context, that things were not equal over so long a time span.

Therefore, series derived from surviving parish account books with entries starting only after 1810 have not been extrapolated backwards before 1801. This has meant in practice a smaller sample of parishes in each county pre-1801 except for Northamptonshire.

TABLE XXVIIIA. ESTIMATED ENGLISH PARISH ROAD EXPENDITURE

Year	Berkshire				£	Essex				£	Hertfordshire				£
1750-51	300	x	31	=	9,300	3,421	x	9	=	30,789	727	x	13	=	9,451
1751-52	300	x	31	=	9,300	3,420	x	9	=	30,780	751	x	13	=	9,763
1752-53	300	x	31	=	9,300	3,438	x	9	=	30,942	742	x	13	=	9,646
1753-54	300	x	31	=	9,300	3,431	x	9	=	30,879	732	x	13	=	9,516
1754-55	300	x	31	=	9,300	3,411	x	9	=	30,699	712	x	13	=	9,256
1755-56	300	x	31	=	9,300	3,421	x	9	=	30,789	754	x	13	=	9,802
1756-57	300	x	31	=	9,300	3,461	x	9	=	31,149	751	x	13	=	9,763
1757-58	300	x	31	=	9,300	3,492	x	9	=	31,428	770	x	13	=	10,010
1758-59	300	x	31	=	9,300	3,457	x	9	=	31,113	785	x	13	=	10,205
1759-60	300	x	31	=	9,300	3,411	x	9	=	30,699	779	x	13	=	10,127
1760-61	300	x	31	=	9,300	3,429	x	9	=	30,861	773	x	13	=	10,049
1761-62	300	x	31	=	9,300	3,421	x	9	=	30,789	713	x	13	=	9,269
1762-63	300	x	31	=	9,300	3,453	x	9	=	31,077	783	x	13	=	10,179
1763-64	299	x	31	=	9,269	3,452	x	9	=	31,068	803	x	13	=	10,439
1764-65	301	x	31	=	9,331	3,443	x	9	=	30,987	822	x	13	=	10,686
1765-66	299	x	31	=	9,269	3,443	x	9	=	30,987	807	x	13	=	10,491
1766-67	299	x	31	=	9,269	3,500	x	9	=	31,500	867	x	13	=	11,271
1767-68	293	x	31	=	9,083	3,508	x	9	=	31,572	926	x	13	=	12,038
1768-69	381	x	31	=	11,811	3,499	x	9	=	31,491	861	x	13	=	11,193
1769-79	339	x	31	=	10,509	3,523	x	9	=	31,707	842	x	13	=	10,946
1770-71	304	x	31	=	9,424	3,492	x	9	=	31,428	771	x	13	=	10,023
1771-72	296	x	31	=	9,176	3,521	x	9	=	31,689	812	x	13	=	10,556
1772-73	281	x	31	=	8,711	3,566	x	9	=	32,094	795	x	13	=	10,335
1773-74	270	x	31	=	8,370	3,626	x	9	=	32,634	773	x	13	=	10,049
1774-75	332	x	31	=	10,292	3,601	x	9	=	32,409	731	x	13	=	9,503
1775-76	225	x	31	=	6,975	3,586	x	9	=	32,274	769	x	13	=	9,997
1776-77	276	x	31	=	8,556	3,504	x	9	=	31,536	820	x	13	=	10,660
1777-78	264	x	31	=	8,184	3,437	x	9	=	30,933	820	x	13	=	10,660
1778-79	223	x	31	=	6,913	3,471	x	9	=	31,239	821	x	13	=	10,673
1779-80	239	x	31	=	7,409	3,573	x	9	=	32,157	759	x	13	=	9,867
1780-81	252	x	31	=	7,812	3,686	x	9	=	33,174	768	x	13	=	9,984

Year	Northamptonshire				£	Warwickshire				£	Total				NATIONAL TOTAL £
1750-51	441	x	38	=	16,758	930	x	24	=	22,320	88,618	x	9	=	797,562
1751-52	447	x	38	=	16,986	979	x	24	=	23,496	90,325	x	9	=	812,925
1752-53	444	x	38	=	16,872	951	x	24	=	22,824	89,584	x	9	=	806,256
1753-54	445	x	38	=	16,910	942	x	24	=	22,608	89,213	x	9	=	802,917
1754-55	436	x	38	=	16,568	943	x	24	=	22,632	88,455	x	9	=	796,095
1755-56	439	x	38	=	16,682	951	x	24	=	22,824	89,397	x	9	=	804,573
1756-57	443	x	38	=	16,834	960	x	24	=	23,040	90,086	x	9	=	810,774
1757-58	442	x	38	=	16,796	946	x	24	=	22,704	90,238	x	9	=	812,142
1758-59	438	x	38	=	16,644	946	x	24	=	22,704	89,966	x	9	=	809,694
1759-60	436	x	38	=	16,568	943	x	24	=	22,632	89,326	x	9	=	803,934
1760-61	436	x	38	=	16,568	949	x	24	=	22,776	89,554	x	9	=	805,986
1761-62	440	x	38	=	16,720	944,	x	24	=	22,656	88,734	x	9	=	798,606
1762-63	434	x	38	=	16,492	956	x	24	=	22,944	89,992	x	9	=	809,928
1763-64	456	x	38	=	17,328	960	x	24	=	23,040	91,144	x	9	=	820,296
1764-65	441	x	38	=	16,758	951	x	24	=	22,824	90,586	x	9	=	815,283
1765-66	444	x	38	=	16,872	958	x	24	=	22,992	90,611	x	9	=	815,499
1766-67	448	x	38	=	17,024	948	x	24	=	22,752	91,816	x	9	=	826,344
1767-68	440	x	38	=	16,720	954	x	24	=	22,896	92,309	x	9	=	830,781
1768-69	446	x	38	=	16,948	943	x	24	=	22,632	94,075	x	9	=	846,675
1769-70	445	x	38	=	16,910	939	x	24	=	22,536	92,608	x	9	=	833,472
1770-71	423	x	38	=	16,074	943	x	24	=	22,632	89,581	x	9	=	806,299
1771-72	422	x	38	=	16,036	912	x	24	=	21,888	89,345	x	9	=	804,105
1772-73	435	x	38	=	16,530	946	x	24	=	22,704	90,374	x	9	=	813,366
1773-74	423	x	38	=	16,074	946	x	24	=	22,704	89,831	x	9	=	808,479
1774-75	456	x	38	=	17,328	1,017	x	24	=	24,408	93,940	x	9	=	845,460
1775-76	490	x	38	=	18,620	1,038	x	24	=	24,912	92,778	x	9	=	835,002
1776-77	432	x	38	=	16,416	961	x	24	=	23,064	89,964	x	9	=	809,676
1777-78	469	x	38	=	17,822	960	x	24	=	23,040	90,639	x	9	=	815,751
1778-79	507	x	38	=	19,266	948	x	24	=	22,752	90,843	x	9	=	817,587
1779-80	474	x	38	=	18,012	954	x	24	=	22,896	90,401	x	9	=	813,609
1780-81	480	x	38	=	18,240	950	x	24	=	22,800	92,010	x	9	=	828,090

TABLE XXVIIIA. ESTIMATED ENGLISH PARISH ROAD EXPENDITURE

Year	Berkshire	£	Essex	£	Hertfordshire	£
1750-51	300 x 31 =	9,300	3,421 x 9 =	30,789	727 x 13 =	9,451
1751-52	300 x 31 =	9,300	3,420 x 9 =	30,780	751 x 13 =	9,763
1752-53	300 x 31 =	9,300	3,438 x 9 =	30,942	742 x 13 =	9,646
1753-54	300 x 31 =	9,300	3,431 x 9 =	30,879	732 x 13 =	9,516
1754-55	300 x 31 =	9,300	3,411 x 9 =	30,699	712 x 13 =	9,256
1755-56	300 x 31 =	9,300	3,421 x 9 =	30,789	754 x 13 =	9,802
1756-57	300 x 31 =	9,300	3,461 x 9 =	31,149	751 x 13 =	9,763
1757-58	300 x 31 =	9,300	3,492 x 9 =	31,428	770 x 13 =	10,010
1758-59	300 x 31 =	9,300	3,457 x 9 =	31,113	785 x 13 =	10,205
1759-60	300 x 31 =	9,300	3,411 x 9 =	30,699	779 x 13 =	10,127
1760-61	300 x 31 =	9,300	3,429 x 9 =	30,861	773 x 13 =	10,049
1761-62	300 x 31 =	9,300	3,421 x 9 =	30,789	713 x 13 =	9,269
1762-63	300 x 31 =	9,300	3,453 x 9 =	31,077	783 x 13 =	10,179
1763-64	299 x 31 =	9,269	3,452 x 9 =	31,068	803 x 13 =	10,439
1764-65	301 x 31 =	9,331	3,443 x 9 =	30,987	822 x 13 =	10,686
1765-66	299 x 31 =	9,269	3,443 x 9 =	30,987	807 x 13 =	10,491
1766-67	299 x 31 =	9,269	3,500 x 9 =	31,500	867 x 13 =	11,271
1767-68	293 x 31 =	9,083	3,508 x 9 =	31,572	926 x 13 =	12,038
1768-69	381 x 31 =	11,811	3,499 x 9 =	31,491	861 x 13 =	11,193
1769-70	339 x 31 =	10,509	3,523 x 9 =	31,707	842 x 13 =	10,946
1770-71	304 x 31 =	9,424	3,492 x 9 =	31,428	771 x 13 =	10,023
1771-72	296 x 31 =	9,176	3,521 x 9 =	31,689	812 x 13 =	10,556
1772-73	281 x 31 =	8,711	3,566 x 9 =	32,094	795 x 13 =	10,335
1773-74	270 x 31 =	8,370	3,626 x 9 =	32,634	773 x 13 =	10,049
1774-75	332 x 31 =	10,292	3,601 x 9 =	32,409	731 x 13 =	9,503
1775-76	225 x 31 =	6,975	3,586 x 9 =	32,274	769 x 13 =	9,997
1776-77	276 x 31 =	8,556	3,504 x 9 =	31,536	820 x 13 =	10,660
1777-78	264 x 31 =	8,184	3,437 x 9 =	30,933	820 x 13 =	10,660
1778-79	223 x 31 =	6,913	3,471 x 9 =	31,239	821 x 13 =	10,673
1779-80	239 x 31 =	7,409	3,573 x 9 =	32,157	759 x 13 =	9,867
1780-81	252 x 31 =	7,812	3,686 x 9 =	33,174	768 x 13 =	9,984

Year	Northamptonshire	£	Warwickshire	£	Total	NATIONAL TOTAL £
1750-51	441 x 38 =	16,758	930 x 24 =	22,320	88,618 x 9 =	797,562
1751-52	447 x 38 =	16,986	979 x 24 =	23,496	90,325 x 9 =	812,925
1752-53	444 x 38 =	16,872	951 x 24 =	22,824	89,584 x 9 =	806,256
1753-54	445 x 38 =	16,910	942 x 24 =	22,608	89,213 x 9 =	802,917
1754-55	436 x 38 =	16,568	943 x 24 =	22,632	88,455 x 9 =	796,095
1755-56	439 x 38 =	16,682	951 x 24 =	22,824	89,397 x 9 =	804,573
1756-57	443 x 38 =	16,834	960 x 24 =	23,040	90,086 x 9 =	810,774
1757-58	442 x 38 =	16,796	946 x 24 =	22,704	90,238 x 9 =	812,142
1758-59	438 x 38 =	16,644	946 x 24 =	22,704	89,966 x 9 =	809,694
1759-60	436 x 38 =	16,568	943 x 24 =	22,632	89,326 x 9 =	803,934
1760-61	436 x 38 =	16,568	949 x 24 =	22,776	89,554 x 9 =	805,986
1761-62	440 x 38 =	16,720	944, x 24 =	22,656	88,734 x 9 =	798,606
1762-63	434 x 38 =	16,492	956 x 24 =	22,944	89,992 x 9 =	809,928
1763-64	456 x 38 =	17,328	960 x 24 =	23,040	91,144 x 9 =	820,296
1764-65	441 x 38 =	16,758	951 x 24 =	22,824	90,586 x 9 =	815,283
1765-66	444 x 38 =	16,872	958 x 24 =	22,992	90,611 x 9 =	815,499
1766-67	448 x 38 =	17,024	948 x 24 =	22,752	91,816 x 9 =	826,344
1767-68	440 x 38 =	16,720	954 x 24 =	22,896	92,309 x 9 =	830,781
1768-69	446 x 38 =	16,948	943 x 24 =	22,632	94,075 x 9 =	846,675
1769-70	445 x 38 =	16,910	939 x 24 =	22,536	92,608 x 9 =	833,472
1770-71	423 x 38 =	16,074	943 x 24 =	22,632	89,581 x 9 =	806,299
1771-72	422 x 38 =	16,036	912 x 24 =	21,888	89,345 x 9 =	804,105
1772-73	435 x 38 =	16,530	946 x 24 =	22,704	90,374 x 9 =	813,366
1773-74	423 x 38 =	16,074	946 x 24 =	22,704	89,831 x 9 =	808,479
1774-75	456 x 38 =	17,328	1,017 x 24 =	24,408	93,940 x 9 =	845,460
1775-76	490 x 38 =	18,620	1,038 x 24 =	24,912	92,778 x 9 =	835,002
1776-77	432 x 38 =	16,416	961 x 24 =	23,064	89,964 x 9 =	809,676
1777-78	469 x 38 =	17,822	960 x 24 =	23,040	90,639 x 9 =	815,751
1778-79	507 x 38 =	19,266	948 x 24 =	22,752	90,843 x 9 =	817,587
1779-80	474 x 38 =	18,012	954 x 24 =	22,896	90,401 x 9 =	813,609
1780-81	480 x 38 =	18,240	950 x 24 =	22,800	92,010 x 9 =	828,090

TABLE XXVIIIA. Estimated English Parish Road Expenditure (cont'd.)

Year	Berkshire				£	Essex				£	Hertfordshire				£
1781-82	231	x	31	=	7,161	3,467	x	9	=	31,212	793	x	13	=	10,309
1782-83	289	x	31	=	8,959	3,651	x	9	=	32,859	802	x	13	=	10,426
1783-84	240	x	31	=	7,440	3,639	x	9	=	32,751	756	x	13	=	9,828
1784-85	259	x	31	=	8,029	3,568	x	9	=	32,112	743	x	13	=	9,659
1785-86	243	x	31	=	7,533	3,642	x	9	=	32,778	773	x	13	=	10,049
1786-87	240	x	31	=	7,440	3,673	x	9	=	33,057	803	x	13	=	10,439
1787-88	300	x	31	=	9,300	3,706	x	9	=	33,354	918	x	13	=	11,934
1788-89	307	x	31	=	9,517	3,897	x	9	=	35,073	837	x	13	=	10,881
1789-90	275	x	31	=	8,525	4,395	x	9	=	39,555	978	x	13	=	12,714
1790-91	312	x	31	=	9,672	4,483	x	9	=	40,347	868	x	13	=	11,284
1791-92	307	x	31	=	9,517	4,130	x	9	=	37,170	936	x	13	=	12,168
1792-93	352	x	31	=	10,912	4,461	x	9	=	40,149	841	x	13	=	12,233
1793-94	316	x	31	=	9,796	4,545	x	9	=	40,905	733	x	13	=	9,529
1794-95	329	x	31	=	10,199	4,495	x	9	=	40,455	922	x	13	=	11,986
1795-96	354	x	31	=	10,974	4,686	x	9	=	42,174	907	x	13	=	11,791
1796-97	329	x	31	=	10,199	4,575	x	9	=	41,175	916	x	13	=	11,908
1797-98	304	x	31	=	9,424	4,507	x	9	=	40,563	839	x	13	=	10,907
1798-99	404	x	31	=	12,524	4,293	x	9	=	38,637	891	x	13	=	11,570
1799-1800	397	x	31	=	12,307	4,625	x	9	=	41,625	867	x	13	=	11,271
1800-01	432	x	31	=	13,392	4,724	x	9	=	42,516	883	x	13	=	11,479
1801-02	358	x	22	=	7,876	6,153	x	5	=	30,765	1,122	x	6	=	6,732
1802-03	468	x	22	=	10,296	6,018	x	5	=	30,090	1,233	x	6	=	7,398
1803-04	434	x	22	=	9,548	6,363	x	5	=	31,815	1,249	x	6	=	7,494
1804-05	463	x	22	=	10,186	6,482	x	5	=	32,410	1,319	x	6	=	7,914
1805-06	468	x	22	=	10,296	6,838	x	5	=	34,190	1,498	x	6	=	8,988
1806-07	537	x	22	=	11,814	6,522	x	5	=	32,610	1,281	x	6	=	7,686
1807-08	520	x	22	=	11,440	6,626	x	5	=	33,130	1,395	x	6	=	8,370
1808-09	567	x	22	=	12,474	6,935	x	5	=	34,675	1,302	x	6	=	7,812
1809-10	563	x	22	=	12,386	6,863	x	5	=	34,315	1,523	x	6	=	9,138
1810-11	628	x	22	=	13,816	7,125	x	5	=	35,625	1,450	x	6	=	8,700

Year	Northamptonshire				£	Warwickshire				£	Total				NATIONAL TOTAL £
1781-82	461	x	38	=	17,518	969	x	24	=	23,256	89,456	x	9	=	805,104
1782-83	501	x	38	=	19,038	980	x	24	=	23,520	94,802	x	9	=	853,218
1783-84	448	x	38	=	17,024	966	x	24	=	23,184	90,227	x	9	=	812,043
1784-85	432	x	38	=	16,416	932	x	24	=	22,368	88,584	x	9	=	797,256
1785-86	435	x	38	=	16,530	956	x	24	=	22,944	89,834	x	9	=	808,506
1786-87	426	x	38	=	16,188	947	x	24	=	22,728	89,852	x	9	=	808,668
1787-88	464	x	38	=	17,632	939	x	24	=	22,536	94,756	x	9	=	852,804
1788-89	457	x	38	=	17,366	969	x	24	=	23,256	96,093	x	9	=	864,837
1789-90	466	x	38	=	17,708	1,004	x	24	=	24,096	102,598	x	9	=	923,382
1790-91	492	x	38	=	18,696	1,002	x	24	=	24,048	104,047	x	9	=	936,423
1791-92	442	x	38	=	16,796	947	x	24	=	22,728	98,379	x	9	=	885,411
1792-93	520	x	38	=	19,760	965	x	24	=	23,160	106,214	x	9	=	955,926
1793-94	577	x	38	=	21,926	1,011	x	24	=	24,264	104,420	x	9	=	957,780
1794-95	543	x	38	=	17,214	1,100	x	24	=	26,400	106,254	x	9	=	956,286
1795-96	544	x	38	=	20,672	1,107	x	24	=	26,568	112,179	x	9	=	1,009,611
1796-97	594	x	38	=	22,572	1,039	x	24	=	24,936	110,790	x	9	=	997,110
1797-98	590	x	38	=	22,420	1,037	x	24	=	24,888	108,202	x	9	=	973,818
1798-99	613	x	38	=	23,294	890	x	24	=	21,360	107,385	x	9	=	966,465
1799-1800	612	x	38	=	23,256	966	x	24	=	23,184	112,093	x	9	=	1,008,837
1800-01	619	x	38	=	23,522	1,200	x	24	=	28,800	119,709	x	9	=	1,077,381
1801-02	515	x	38	=	19,570	1,375	x	16	=	22,000	86,943	x	9	=	782,487
1802-03	544	x	38	=	20,672	1,404	x	16	=	22,464	90,920	x	9	=	818,280
1803-04	498	x	38	=	18,924	1,310	x	16	=	20,960	88,741	x	9	=	798,669
1804-05	599	x	38	=	22,762	1,356	x	16	=	21,696	94,968	x	9	=	854,712
1805-06	605	x	38	=	22,990	1,275	x	16	=	20,400	96,864	x	9	=	871,776
1806-07	582	x	38	=	22,116	1,321	x	16	=	21,136	95,362	x	9	=	858,258
1807-08	608	x	38	=	23,104	1,455	x	16	=	23,280	99,324	x	9	=	893,916
1808-09	565	x	38	=	21,470	1,439	x	16	=	23,024	99,455	x	9	=	895,095
1809-10	554	x	38	=	21,052	1,481	x	16	=	23,696	100,587	x	9	=	905,283
1810-11	495	x	38	=	18,810	1,677	x	16	=	26,832	103,783	x	9	=	934,047

TABLE XXVIIIA. Estimated English Parish Road Expenditure (cont'd.)

Year	Berkshire				£	Essex				£	Hertfordshire				£
1811-12	550	x	22	=	12,100	7,385	x	5	=	36,925	1,373	x	6	=	8,238
1812-13	585	x	22	=	12,870	7,510	x	5	=	37,550	1,474	x	6	=	8,844
1813-14	603	x	22	=	13,266	8,016	x	5	=	40,080	1,781	x	6	=	10,686
1814-15	746	x	22	=	16,412	8,024	x	5	=	40,120	1,922	x	6	=	11,532
1815-16	848	x	22	=	18,656	8,087	x	5	=	40,435	1,920	x	6	=	11,520
1816-17	635	x	22	=	13,970	7,801	x	5	=	39,005	1,795	x	6	=	10,770
1817-18	587	x	22	=	12,914	8,540	x	5	=	42,700	1,598	x	6	=	9,588
1818-19	704	x	22	=	15,488	8,023	x	5	=	40,115	1,617	x	6	=	8,085
1819-20	578	x	22	=	12,716	7,683	x	5	=	38,415	1,886	x	6	=	11,316
1820-21	602	x	22	=	13,244	7,142	x	5	=	35,710	1,786	x	6	=	10,716
1821-22	677	x	22	=	14,894	7,160	x	5	=	35,800	1,552	x	6	=	9,312
1822-23	598	x	22	=	13,156	7,239	x	5	=	36,195	1,597	x	6	=	9,582
1823-24	554	x	22	=	12,188	7,132	x	5	=	35,660	1,871	x	6	=	11,226
1824-25	591	x	22	=	13,002	7,306	x	5	=	36,530	1,751	x	6	=	10,506
1825-26	617	x	22	=	13,574	7,114	x	5	=	35,570	1,686	x	6	=	10,116
1826-27	621	x	22	=	13,662	7,045	x	5	=	35,225	1,838	x	6	=	11,028
1827-28	686	x	22	=	15,092	7,022	x	5	=	35,110	1,796	x	6	=	10,776
1828-29	639	x	22	=	14,058	6,887	x	5	=	34,435	1,861	x	6	=	11,166
1829-30	722	x	22	=	15,884	6,765	x	5	=	33,825	1,655	x	6	=	9,930

Year	Northamptonshire				£	Warwickshire				£	Total				NATIONAL TOTAL £
1811-12	527	x	38	=	20,026	1,638	x	16	=	26,208	103,497	x	9	=	931,473
1812-13	770	x	38	=	29,260	1,737	x	16	=	27,792	116,316	x	9	=	1,046,844
1813-14	713	x	38	=	27,094	1,825	x	16	=	29,200	120,326	x	9	=	1,082,934
1814-15	834	x	38	=	31,692	1,654	x	16	=	26,464	126,220	x	9	=	1,135,980
1815-16	862	x	38	=	32,756	1,661	x	16	=	26,576	129,943	x	9	=	1,169,487
1816-17	661	x	38	=	25,118	1,707	x	16	=	27,312	116,175	x	9	=	1,045,575
1817-18	771	x	38	=	29,298	1,599	x	16	=	25,584	120,084	x	9	=	1,080,756
1718-19	948	x	38	=	36,024	1,693	x	16	=	27,088	126,800	x	9	=	1,141,200
1819-20	806	x	38	=	30,628	1,536	x	16	=	24,576	117,651	x	9	=	1,058,859
1820-21	855	x	38	=	32,490	1,661	x	16	=	26,576	118,736	x	9	=	1,068,624
1821-22	802	x	38	=	30,476	1,694	x	16	=	27,104	117,586	x	9	=	1,058,274
1822-23	897	x	38	=	34,086	1,514	x	16	=	24,224	117,243	x	9	=	1,055,187
1823-24	885	x	38	=	33,630	1,579	x	16	=	25,264	117,968	x	9	=	1,061,712
1824-25	878	x	38	=	33,364	1,671	x	16	=	26,736	120,138	x	9	=	1,081,242
1825-26	980	x	38	=	37,240	1,729	x	16	=	27,664	124,164	x	9	=	1,117,476
1826-27	966	x	38	=	36,708	2,053	x	16	=	32,848	129,471	x	9	=	1,165,239
1827-28	805	x	38	=	30,590	1,602	x	16	=	25,632	117,200	x	9	=	1,054,800
1828-29	775	x	38	=	29,450	1,727	x	16	=	27,632	116,741	x	9	=	1,050,669
1829-30	944	x	38	=	35,872	2,326	x	16	=	37,216	132,727	x	9	=	1,194,543

TABLE XXVIIIB. PARISH COMPOSITION

Year	Gross Expenditure £	Composition on Turnpike £		Statute Duty on Turnpike £	Net Expenditure £
1812-13	1,298,262		minus one eighth		1,135,970
1813-14	1,366,928		" " "		1,196,062
1814-15	1,403,689		" " "		1,228,228
1815-26	As Table XXVIIIA				
1827-28	1,075,262				940,855
1829-32	As Table XXVIII		" " "		
1833-34	As Table XXVIII	55,343		70,473	1,014,312
1834-35	As Table XXVIII	49,848		69,280	1,021,000
1835-36	As Table XXVIII	36,876		47,815	1,055,437
1836-37	As Table XXVIII	11,564		12,896	1,115,668
1837-38	1,077,880		minus one eighth		943,145
1838-39	1,177,012	9,861		8,740	1,158,411
1839-40	1,230,358	21,107		8,147	1,201,104
1840-41	As Table XXVIII	26,631		7,702	1,254,013
1841-42	1,288,346	30,316		6,418	1,251,612
1842-43	As Table XXVIII	26,421		5,830	1,256,095
1843-44	As Table XXVIII	26,386		5,815	1,256,145
1844-45	As Table XXVIII	23,793		5,381	1,259,172
1845-46	1,668,134	24,408		4,898	1,638,828
1846-47	As Table XXVIII	24,640		5,601	1,707,543
1847-48	1,737,784	23,810		5,033	1,708,941
1848-49	As Table XXVIII	23,051		4,211	1,710,522
1849-50	1,807,434		minus one eighth		1,581,505
850-51	As Table XXVIII		" " "		

TABLE XXIX. BREAKDOWN OF PARISH HIGHWAY RETURNS

Year	Rates £	Composition £	Statutory Labour £	Law Expenses £	GROSS TOTAL £
1812	557,777	265,189	487,418	20,356	1,298,262
1813	602,035	270,493	511,243	25,344	1,366,928
1814	607,950	279,762	522,848	24,835	1,403,689

Year	Manual Labour £	Team Labour £	Materials £	Trade Bills £	Salaries £	Composition £	Incidentals £
1845	578,066	286,276	419,881	105,117	61,749	25,643	191,402
				(200 returns missing of 15,841)		TOTAL	£1,668,154
1850	587,424 10,130	238,154 57,124	403,532	114,895	71,054	19,211	175,906
						TOTAL	£1,807,434

TABLE XXX

British Quasi Net Investment in Parish Highways

	English Parish Highway Expenditure	Scottish Parish Highway Expenditure	Welsh Parish Highway Expenditure	TOTAL British Parish Highway Expenditure
	£	£	£	£
1750-51	797,562	44,309	28,484	870,355
1751-52	812,925	45,162	29,033	887,120
1752-53	806,256	44,792	28,794	879,842
1753-54	802,917	44,606	28,675	876,918
1754-55	796,095	44,227	28,431	868,753
1755-56	804,573	44,698	28,734	878,005
1756-57	810,774	45,043	28,956	884,773
1757-58	812,142	45,119	29,005	886,266
1758-59	809,694	44,983	28,917	883,594
1759-60	803,934	44,663	28,711	877,308
1760-61	805,986	44,777	28,785	879,548
1761-62	798,606	44,367	28,521	871,494
1762-63	809,928	44,996	28,926	883,850
1763-64	820,296	45,572	29,296	895,164
1764-65	815,283	45,293	29,117	889,693
1765-66	815,499	45,305	29,124	889,928
1766-67	826,344	45,908	29,512	901,764
1767-68	830,781	46,154	29,670	906,605
1768-69	846,675	47,037	30,238	923,950
1769-70	833,472	46,304	29,766	909,542
1770-71	806,299	44,794	28,796	879,889
1771-72	804,105	44,672	28,718	877,495
1772-73	813,366	45,187	29,048	887,601
1773-74	808,479	44,915	28,874	882,268
1774-75	845,460	46,970	30,195	922,625
1775-76	835,002	46,389	29,821	911,212
1776-77	809,676	44,982	28,917	883,575
1777-78	815,751	45,319	29,133	890,203
1778-79	817,587	45,421	29,199	882,207
1779-80	813,609	45,200	29,057	887,866
1780-81	828,090	46,005	29,574	903,669
1881-82	805,104	44,728	28,753	878,585
1782-83	853,218	47,404	30,472	931,094
1783-84	812,043	45,113	29,001	886,157
1784-85	797,256	44,292	28,473	870,021
1785-86	808,506	44,917	28,875	882,298
1786-87	808,668	44,926	28,881	882,475
1787-88	852,804	47,378	30,457	930,639
1788-89	864,837	48,046	30,887	943,770
1789-90	923,382	51m299	32,977	1,007,658
1790-91	936,423	52,023	33,443	1,021,889

TABLE XXX (cont'd.)

	English Parish Highway Expenditure	Scottish Parish Highway Expenditure	Welsh Parish Highway Expenditure	TOTAL British Parish Highway Expenditure
	£	£	£	£
1791-92	885,411	49,189	31,621	966,221
1792-93	955,926	53,107	34,140	1,041,173
1793-94	957,780	53,210	34,206	1,045,196
1794-95	956,286	53,127	34,153	1,043,566
1795-96	1,009,611	56,089	36,057	1,101,757
1796-97	997,110	55,395	35,611	1,088,116
1797-98	973,818	54,101	34,779	1,062,698
1798-99	966,465	53,692	34,516	1,054,673
1799-1800	1,008,837	56,046	36,029	1,101,012
1800-01	1,077,381	59,854	38,477	1,175,703
1801-02	782,487	43,471	27,945	853,903
1802-03	818,280	45,460	29,224	892,964
1803-04	798,669	44,370	28,523	871,562
1804-05	854,712	47,484	30,525	923,721
1805-06	871,776	48,431	31,134	951,341
1806-07	858,258	47,681	30,652	936,591
1807-08	893,916	49,662	31,925	975,503
1808-09	895,095	49,727	31,967	976,789
1809-10	905,283	50,293	32,331	987,907
1810-11	934,047	51,891	33,358	1,019,296
1811-12	931,477	51,748	33,266	1,016,487
1812-13	1,135,980	58,158	47,412	1,241,550
1813-14	1,196,062	60,163	47,422	1,303,647
1814-15	1,228,228	63,110	50,814	1,342,152
1815-16	1,169,487	64,971	41,767	1,276,225
1816-17	1,045,575	58,087	37,341	1,141,003
1817-18	1,080,756	60,042	38,598	1,179,396
1818-19	1,141,200	63,400	40,757	1,245,357
1819-20	1,058,859	58,825	37,816	1,155,500
1820-21	1,068,624	59,368	38,165	1,166,157
1821-22	1,058,274	58,793	37,795	1,154,862
1822-23	1,055,187	58,621	37,685	1,151,493
1823-24	1,061,712	58,984	37,918	1,158,614
1824-25	1,081,242	60,069	38,615	1,179,926
1825-26	1,117,476	62,082	39,082	1,219,467
1826-27	1,165,239	64,735	41,615	1,271,587
1827-28	940,855	58,600	37,671	1,037,126
1828-29	1,050,669	58,370	37,523	1,109,039
1829-30	997,612	66,363	42,662	1,106,637
1830-31	997,612	55,422	35,628	1,088,662
1831-32	997,612	55,422	35,628	1,088,662
1832-33	997,612	55,422	35,628	1,088,662
1833-34	1,014,312	56,350	36,225	1,106,887

TABLE XXX (cont'd.)

	English Parish Highway Expenditure	Scottish Parish Highway Expenditure	Welsh Parish Highway Expenditure	TOTAL British Parish Highway Expenditure
	£	£	£	£
1834-35	1,021,000	56,722	36,464	1,114,186
1835-36	1,055,437	58,635	37,694	1,151,766
1836-37	1,115,668	61,981	39,845	1,217,494
1837-38	943,145	52,396	35,021	1,029,224
1838-39	1,158,411	64,356	35,631	1,264,138
1839-40	1,201,104	66,728	42,377	1,310,209
1840-41	1,254,013	69,167	44,464	1,367,644
1841-42	1,251,612	69,534	44,700	1,365,846
1842-43	1,256,095	69,783	44,860	1,370,738
1843-44	1,256,145	70,863	44,862	1,371,870
1844-45	1,259,172	70,175	44,970	1,374,317
1845-46	1,638,828	73,201	58,529	1,770,558
1846-47	1,707,543	77,166	60,983	1,845,692
1847-48	1,708,941	78,945	60,133	1,848,019
1848-49	1,710,522	90,027	57,874	1,858,423
1849-50	1,581,505	87,861	56,482	1,725,848

The figures underlined are derived from parliamentary returns; those not underlined are estimates.

In Hertfordshire for example, account books were investigated for 24 parishes out of a total of 130.(1) Of these, Anstey, Bramfield, Essenden and Norton possessed account books only post-1810, and the series for these parishes were therefore only extrapolated to 1801. Thus, the pre-1801 figures for this county are based on materials from 20 parishes whereas the post-1801 figures in Table XXVIII above, are from the full 24 parishes examined. The Northamptonshire samples did not contain any account books starting after 1810 and the series in Table XXVIII for that county is based on the full sample of 18 parishes both before and after 1801. But in Essex the sample difference amounted to 18 parishes so that the pre-1801 figures are based on 79 parishes whereas the post-1801 series is based on 97 parishes of a total of 420.(2) The hiatus as the sample size changes in 1801 is distinct in Table XXVIII above for Berkshire, Hertfordshire, essex and Warwickshire.

It is evident that money paid by parishes to turnpikes was not spent on parish roads, and such composition payments were deducted whenever encountered in the waywardens' account books. It was therefore necessary to adjust the parliamentary highway returns for such composition in order to use them to construct national totals from the five parish series collected. The post-1833 turnpike returns contain full details of national parish composition and statute duty on turnpikes which are set out above with the parliamentary highway returns in Table XXVIIIB. However, the 1835 Highways Act apparently relieved parishes

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(1) See App. D.
(2) See App. D.

of composition to turnpikes, although the position was substantially restored in 1841.[1] The figures for 1835-41 in Table XXVIIIB reflect this confusion and the only return which really gives a clear picture of the amount of parish obligations is that for 1834. The figures for composition and statute duty for that year represent a little over one eighth of the total gross expenditure returned for 1827 and 1837,[2] and this proportion has been deducted from the returns and averaged gross highway expenditures pre-1834.

The five parish totals collected for the years 1801 and 1813 were then divided into the parliamentary county returns for 1813, which yielded the factors of 31 for Berkshire pre-1801 and 22 post-1801 and so forth for other counties as set out in Table XXVIII above. It will be noted that for Essex and Hertfordshire where the samples were nearly a quarter of the total parishes, the post-1801 factors of five and six respectively are nearest to the four which might have been expected. The discrepancy and the high factors for the other counties are not simply a reflexion of relatively small samples but of predominantly rural, rather than urban samples. Thus, although the Warwickshire samples contain 31 parishes post-1801 out of 320, the sample totally excludes the Birmingham district.

The parish totals were multiplied by the calculated factors to give county totals. These were then multiplied by a factor of nine

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(1) Webbs, op. cit. King's Highway, p.217.
(2) See above, footnote 2, p.206.

which had been derived by dividing the five parliamentary county totals into the parliamentary national totals for 1813 to give a national total from 1750-1830 as set out in Table XXVIII. A complete set of highway expenditure from 1750-1850 is thus set out in the two tables above.

The most dubious part of the above estimation is the reliance on the factors for multiplying parish totals into county totals and thence into national totals remaining constant over long periods of time. It is not certain that such an assumption would have been justified if the West Riding or Middlesex had been included in the samples, since increased urbanization in these counties might have made parish highway expenditure grow out of all proportion with the average county which remained more rural in aspect. On the other hand, even in these two increasingly built-up counties the figures might not have deviated too much from the typical, for it was the very reluctance of old established parishes in urban areas to do more than they had been wont to do, which brought about improvement commissioners.(1) The five counties investigated as a base were not greatly deviant from the norm. They were certainly not exceptionally urbanized in 1812, since London had been expanding into Middlesex rather than Hertfordshire and Essex up to this time, and some urban growth in Warwickshire was more than offset by the totally rural character of Berkshire and Northamptonshire. There is therefore, some hope that the assumptions made in the construction of the 18th century

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(1) Webbs', Statutory Bodies, op. cit. p.290, passim.

estimates in Table XXVIII above are justified.

Table XXIX above gives some details from parish returns to parliament. It was not thought worthwhile to attempt any extrapolation of these because the 1835 Highways Act introduced considerable changes in abolishing statute duty and so forth.(1) It is likely, for example, that the items of £61,749 for salaries in 1845 is largely attributable to the 1835 legislation, since payments of surveyors was seldom encountered prior to 1830 in the sample of parishes examined. Nevertheless the detailed breakdowns of the 1845 and 1850 highway returns do show that despite increasing administrative complexity, a far greater proportion of parish road outlay was devoted to materials and labour than with the turnpike trusts although waywardens expenditure had to cover 86,000 miles of road as against 17,500 miles for turnpikes in 1812. However, when turnpike expenditure is reduced to the quantity of money actually spent per annum on labour and materials the comparison is not so impressive as might be expected. Thus, in 1845 the trusts spent £292,603 on manual labour, £125,562 on team labour and £184,032 on materials(2) against £578,066, £286,276 and £419,881 respectively for parish highways in the same year. Admittedly the trusts also spent £58,653 on improvements that year, when they were already feeling the force of railway competition, whereas possibly parish administration was improving under the impact of the 1835 legislation. On the other hand the trusts'

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(1) See above, Ch. 2, Section III.
(2) See Table XVII above.

administrative overheads were lower in 1835 than before the abolition of fees for renewals acts, and some measure of rationalization had been taking place under the impact of parliamentary criticism. Furthermore, the 1812-14 highway returns amply confirm the importance of highway rates shown in the parish books examined, which implies a more rational system of parish maintenance, and it is also likely that much of the statute duty in the returns was in fact commuted. The amount of Legal Expenditire for parish roads in the 1823-14 returns in Table XXIX above is higher than expected from the ledgers examined, but may well reflect larger outlays in urban areas in removing nuisances and so forth. Above all it is clear from Table XVII that turnpikes really suffered most from their repayments of interest and principal on their debt, in addition to their high administrative costs.

All of the figures in Table XXVIII relate entirely to England. For Wales and Scotland there is parliamentary material available post-1812 and this is set out in full in Table XXX with adjustments for turnpike composition and interpolation where necessary. The Scottish material relates, in fact, to the statute labour trusts and not to surveyors of highways as in England and Wales. But it was decided that such differences of administration should not materially affect the proportional extrapolation from the parliamentary returns on the basis of the English figures, as with the turnpikes for the pre-1833 period.

The expenditure series of Tables XVII, XVIII, XXVIII and XXX simply show a trend of growing outlay on turnpikes and parish roads over the period, but whether this expenditure really correlated directly with better roads can only be ascertained by reference to as wide a field as possible of contemporary eye-witness comment with all its inherent dangers. Thus the Webbs' impressions are gathered almost entirely from contemporary commentators, and that these might be misleading has recently been fully demonstrated in the case of the Poor Law Commissioners of 1834.(1)

Essentially contemporary literary comment generally comes from people with a case to make. In theory it should be possible to guard against this bias by analysing the evidence of parliamentary committees but even when these are not consciously packed,(2) or interested parties excluded on technicalities,(3) there is the great danger so well realized now, but not at the time, of the phrasing of a question bringing forth the answer required. Again the proponents of change are often far better organized and much more articulate than their opponents, and there have been too many historical revisions recently of orthodoxies previously almost universally accepted because the more articulate reformers were victorious and their propaganda was accepted as representing the true state of affairs.(4) Davies Gilbert, Lowther,

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(1) M. Blaug, op. cit. J.D. Marshall, op. cit.
(2) The Sadleir Factory Commission of 1833.
(3) Kellett, op. cit.
(4) M. Blaug, op. cit.

Parnell, Macadam and other contemporaries quoted by the Webbs, all had a case to make for reforms and their comments should be treated with due caution. The reliability of an observer such as Arthur Young, has already been subjected to devastating analysis and it is likely that if the comments on roads of all the Board of Agriculture reports, were subjected to systematic scrutiny, the impression gained would be very mixed and piecemeal.(1) The Webbs and Jackman had to rely almost entirely on contemporary literary comments and parliamentary material because of the lack of record repositories at the time they wrote. Thus direct references to turnpike minute books or parish officers books are relatively few and far between in their works, which may be why their conclusions tend to be the same.

This is not to deny the relevance and importance of the work of contemporary propaganda, but it should have given the Webbs food for thought that they could find only one book of any note concerned with the parish highways in the early 19th century. This may not simply have been through the relative lack of importance of highways to turnpikes but also because generally the highways proved adequate for the traffic which they had to bear, in rural areas at any rate.(2)

Thus it would appear that parish expenditure in 1750 was already considerable in terms of the general level of development of the economy and population at that time. Taking inflation into account,

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(1) See above, pp. 73-74.
(2) A. Cossons, "The Turnpike Roads of Nottinghamshire", Historical Association Pamphlet, 1934.

growth of parish expenditure during the Napoleonic Wars is not as fast in real terms as might have been expected. But this may also be due to improved organization and the spread of Macadam's cheaper methods of roadmaking, as well as to the customary nature of the revenue. Many parishes may well have learned from the example of the turnpike road running through them. Equally, the fact that turnpike expenditure in terms of labour and materials is lower than might have been expected may well reflect relatively efficient administration.

It can be concluded, however, that the evaluation of roads is largely a question of subjective qualitative assessment, owing to the new demands of increasing traffic and the higher expectations of new generations of travellers.(1) In this respect, the figures in Tables XXVIII and XXX would seem to suggest that there has been some exaggeration of parish incompetence.

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(1) It is instructive to compare the laudatory statements of the 1950's on French roads which were then more than adequate for the traffic load of that time, with the dissatisfied comment on their total inadequacy in 1969.

Prior to the 18th century, responsibility for the maintenance of bridges in England had become increasingly confused. Some bridges had been erected and were maintained by municipal corporations, or by counties, or by Hundreds; others were constructed and supervised by special commissioners or by parishes. However, from the beginning of the 18th century there was a growing tendency for the county authorities, as represented by Quarter Sessions, to accept the responsibility of maintaining bridges on public highways. This process received a slight check in the County Rating Act of 1739 but was greatly encouraged by the Glasbourne Bridge case of 1780. By the judgment then given and subsequently followed it was laid down that county authorities had to undertake to maintain a bridge unless they could prove that it had to be repaired by someone else. Moreover, construction of a bridge was not allowed as evidence of responsibility for its continued repair. In practice the effect of the Glasbourne case was that bridge construction by both institutions and individuals increased considerably, when the burden of maintenance could be shifted subsequently on to the county. Despite some abuses and attempts by counties to have the law changed, bridge repair throughout the period under consideration[2] had to be carried out by Quarter Sessions unless they could prove otherwise.

Yet the county was concerned with maintenance only. Even

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(1) Webbs', King's Highway, op. cit. pp. 98-99.
(2) See Webbs', King's Highway, op. cit. Ch. VI, and Jackman, op. cit, pp.144-156, 349-356.

if often broadly interpreted, as it often was, this did not include the construction of new bridges where none had previously existed.(1) The expenditure set out below in Table XXXI(2) is therefore entirely concerned with the repair and maintenance of bridges by county authorities and does not include new construction.

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(1) Webbs', op. cit.
(2) P.P. 1839, XLIV, H.o.L. 1851, Vol. 12, B.M. P.P. 1851, XLVIII, 5. P.P. 1852, LIII, 251.

TABLE XXXI.

ENGLISH COUNTY RATE EXPENDITURE ON BRIDGES

Year	National Expenditure £	West Riding Expenditure £			Estimated National Expenditure £
1750-51		491	x	15 =	7,365
1751-52		506			7,590
1752-53		582			8,730
1753-54		965			14,475
1754-55		942			14,130
1755-56		488			7,320
1756-57		565			8,475
1757-58		640			9,600
1758-59		1,007			15,105
1759-60		636			9,540
1760-61		2,093			31,395
1761-62		1,152			17,280
1762-63		561			8,415
1763-64		1,041			15,615
1764-65		859			12,885
1765-66		1,544			23,160
1766-67		2,699			40,485
1767-68		2,580	x	15 =	38,700
1768-69		1,703			25,545
1769-70		3,454			51,810
1770-71		3,435			51,525
1771-72		3,557			53,355
1772-73		3,085			46,275
1773-74		3,990			59,850
1774-75		4,486			67,290
1775-76		4,543			68,145
1776-77		4,882			73,230
1777-78		4,094			61,410
1778-79		4,941			74,115
1779-80		7,857			117,855
1780-81		3,359	x	15 =	50,385
1781-82		804			12,060*
1782-83		2,911			43,665
1783-84		1,676			25,140
1784-85		2,897			43,455
1785-86		4,296			64,440
1786-87		3,284	x	15 =	49,260
1787-88		2,468			37,020
1788-89		1,952			29,280
1789-90		2,086			31,290
1790-91		2,396			35,940
1791-92		2,189			32,835

TABLE XXXI (cont'd.)

Year	National Expenditure £	West Riding Expenditure £	Estimated National Expenditure £
1792-93	32,500)	2,279)	Averaged to a
1793-94	40,709)	2,420)	factor of 15
1794-95	31,286)	2,341)	for the estimated expenditure
1795-96	43,322	1,581	
1796-97	49,922		
1797-98	45,205		
1798-99	41,100		
1799-1800	43,273		
1800-01	45,969		
1801-02	52,122		
1802-03	46,421		
1803-04	42,414		
1804-05	42,019		
1805-06	58,172		
1806-07	48,691		
1807-08	51,646		
1808-09	61,019		
1809-10	76,643		
1810-11	89,478		
1811-12	96,569		
1812-13	112,337		
1813-14	122,282		
1814-15	130,183		
1815-16	151,351		
1816-17	113,609		
1817-18	95,299		
1818-19	91,657		
1819-20	85,548		
1820-21	85,405		
1821-22	61,023		
1822-23	69,386		
1823-24	62,313		
1824-25	77,017		
1825-26	101,891		
1826-27	97,336		
1827-28	90,409		
1828-29	88,304		
1829-30	78,009		
1830-31	76,470		
1831-32	84,027		
1832-33	75,179		

TABLE XXXI (cont'd.)

	National Expenditure	West Riding Expenditure	Estimated National Expenditure
	£	£	£
1833-34	76,507		
1834-35	72,161		
1835-36	53,623		
1836-37	55,234		
1837-38	54,778		
1838-39	46,226		
1839-40	56,340*		
1840-41	61,557		
1841-42	63,907		
1842-43	64,092		
1843-44	57,290		
1844-45	59,289		
1845-46	53,139		
1846-47	56,424		
1847-48	57,461		
1848-49	65,170		
1849-50	54,423		
1850-51	58,524		

The series from 1819 onwards in Table XXXI are based on actual returns by county treasurers and are therefore reliable. County treasurers were required however, to produce figures retrospectively by a committee on local taxation of 1839.(1) Apparently there was insufficient material available in 1839 for the years before 1819 in some counties and for 1792-1818 comparative guestimates were made by the committee of 1839 on the basis of comparison of counties with similar populations. The percentages which had to be added to make up the total are set out in full elsewhere,(2) but varied from almost 50 per cent in 1792 to 12 per cent in 1818. Before 1792 the only series of county bridge expenditure is that for the West Riding.(3) The 1839 Committee investigating the county rate expenditure considered this series to be fully representative of an average English county for these years. They thought its agricultural population to be comparable with that of Lincolnshire and Devon, and that it was nearly equal in area to most counties.(4)

On the other hand it is clear from the present study that the West Riding had more turnpikes than any other county in England and this was itself in part a reflection of a pace of industrial development post-1790 matched by few other counties.(5) Nevertheless, it has

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(1) P.P. 1839, XLIV.
(2) Mitchell and Deane, op. cit. p.411.
(3) P.P. 1839, XLIV.
(4) P.P. 1839, XLIV.
(5) G.H. Hopkinson, op. cit.

been thought worthwhile to take the West Riding expenditure as a proportion of the total during the 1790's and to multiply it by this figure back to 1750. This very crude index of county bridge expenditure for the period 1750-1790 is set out in column three in Table XXXI. However, this series can only be used as a very general guide to county bridge outlay since its mode of construction, on a single sample basis, is open to many objections.

Since county authorities did not consider themselves responsible for the construction of new bridges,(1) raising the money for new bridges remained a major problem throughout the period 1750-1850.(2) Smaller bridges were generally constructed either by interested private individuals(3) or institutions, or by such public authorities as parishes and turnpike trusts. In these cases the construction money was derived directly from the private parties concerned, by public subscription or from parish rates or turnpike tolls. Subsequent repairs were then undertaken by the relevant county.

But in the case of a bridge, spanning a major river, the situation was more complex, since most of these methods were unlikely to raise sufficient money to meet the enormous costs involved. The successful construction of a major bridge is not merely a technological triumph but it is also a considerable achievement in the mobilization

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(1) Webbs, op. cit.
(2) The problem was not satisfactorily resolved until the new county councils of the late 19th century assumed responsibility for new construction as well as maintenance.
(3) Such as the Wear Bridge by Burdon. S. Smiles, Lives of the Engineers - Metcalfe, Telford, 1904 Ed., pp.213-4.

of the necessary resources. Furthermore, the bridging of a major river is always expensive in resources, and it is relatively more costly the cruder the technology used and the less developed the economy making the effort. The decision to construct a new bridge requiring large quantities of capital was relegated by the central government in this period to private initiative, as with other transport improvements. The Government intervened directly in Scotland and on the Holyhead Road,[1] but apart from this the central government left bridge construction strictly alone in England with the single exception of Westminster Bridge. The Government provided considerable financial assistance in this case because this was the first bridge to be built in London proper since the Middle Ages.[2] But once a technological and financial precedent had been established, the experiment of a Commission empowered to hold lotteries and receive direct Government grants was not emulated. Subsequent Thames Bridges were left to municipal or private initiative, like the earlier bridges across the Thames at Fulham, Kingston, and Marlow.

Thus in practice, Blackfriars and all succeeding Thames bridges were initially constructed as toll bridges.[3] Later concerns

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(1) See above.
(2) For detailed discussions of the financing and constructing of Westminster and Blackfriars Bridges, and general analysis of the problems of 18th century bridge construction, see P. Carson, The Provision and Administration of Bridges over the Thames, M.A. Thesis, London, 1954. See also, James Dredge, Thames Bridges, (1897) for technical and financial information on all bridges from London to the source.
(3) T.F. Reddaway, "The Freeing of the London Bridges", Twentieth Century Vol. 151, 1952.

such as the organization responsible for Hammersmith Bridge tended to call themselves Companies rather than Trusts, but all derived their powers from private acts of parliament which fixed their rates of tolls. In practice therefore, there was little difference between the earlier bridge trust and the later bridge company. None made exorbitant profits and most usually disappointed the expectations of their promoters.(1) Toll bridges became notoriously unsuccessful in London where a spate of bridge construction occurred towards the end of the Napoleonic War. Southwark, Vauxhall, Waterloo and Hammersmith Bridges were all constructed within a few years of one another.(2) But whenever possible the public avoided all of these toll bridges and their fellows in favour of the free bridges such as that at Westminster.(3) Moreover, unlike turnpike trusts, toll bridges were empowered to charge pedestrians and were thus even more unpopular. The wholesale avoidance of London's toll bridges by both vehicle and pedestrians did not simply imply financial disaster for their promoters. A far more serious consequence was the total distortion of London's traffic pattern with the gross overcrowding of free bridges and general under-utilization of the toll bridges. It was the realization of the inefficiency and inconvenience of this distortion which eventually caused the bridges to be freed of tolls in the

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(1) T.F. Reddaway, op. cit.
(2) Dredge, op. cit. Southwark 1814-19, Vauxhall, 1811-16, Waterloo, 1813-17, Hammersmith somewhat later, 1824-29.
(3) T. Barker and M. Robbins, op. cit. T.F. Reddaway, ibid.

late 19th century.[1] Yet construction of toll bridges was by no means confined to the Thames. They were built all over the country in the late 18th and early 19th centuries, wherever the spanning of a major river required a large capital outlay.[2] Some, such as that across the Ouse at Selby or the Trent at Dunham, still survive as toll bridges today. But the majority such as the Tickford Bridge at Newport Pagnell, were not profitable for their promoters, distorted traffic patterns caused delay and were generally so unpopular with the public that they have since been freed of tolls.

There are no national parliamentary figures on bridge trusts and companies as distinguished from county bridges until 1833, when some are included in the turnpike returns.[3] During the 1820's and afterwards some bridge trusts appear to have sent returns of income and expenditure to be filed with the relevant clerk of the peace. However, this practice seems to have depended on whether the bridge trust included a considerable length of approach road and was therefore partly a road trust. Since many bridge trusts did not file any returns it is impossible to construct a comprehensive picture of bridge expenditure from the parliamentary returns before or after 1833. In anycase

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(1) T.R. Reddaway, op. cit.
(2) As a particular study of a provincial bridge M.J. Becher, Rochester Bridge, 1387-1856, (1930), is almost entirely concerned with the history of the bridge to about 1430, despite a highly misleading title, See also, Smiles, op. cit., Ch. VII for details of various 18th century provincial bridges.
(3) See above, p. 97.

the nature of bridge expenditure differs widely from that of turnpike roads.[1] The majority of company bridges seem to have been soundly constructed in stone or iron rather than wood, and this called for a large initial outlay followed by minimal maintenance expenditure, whereas road trusts constantly spent large sums on repairs and improvements. In the absence of parliamentary statistics it has been necessary to collect material from surviving bridge trust records. The survival rate of bridge trust records is better than for turnpike trusts, but many of the financial records of bridge companies have been lost or destroyed.[2] It should have proved possible to use the extant bridge trust account books as a basis for estimates of expenditure on those bridges with no surviving financial records. This was in effect the procedure followed for turnpikes.[3] However, in the case of the roads there was parliamentary material available giving full details of the origin, length, and relative importance of each turnpike, whereas for bridges there are no similar returns.

Although highly unsatisfactory for the purposes of the present study it was therefore only possible to collect such figures as were available for the principal bridge trusts and companies. The comprehensive series from the bridge trusts examined is set out below in column one in Table XXXII,[4] but it is known to omit some bridges and

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(1) See above, p.49.
(2) For example, a search for records concerning Southwark and Vauxhall Bridges brought to light nothing apart from a few pages in an otherwise unused ledger. G.L.R.O.
(3) See above, p.102, passim
(4) See App. C, below.

is clearly an underestimate of the total bridge outlay in this period. However, despite the considerable size of the net sums spent on some individual bridges,[1] this expenditure was negligible in relation to the net annual total on roads and waterways.[2]

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(1) For example, in the decade 1760-1770, net expenditure on Blackfriars Bridge came to in excess of £190,000. See App. C for details, and for examples of other bridges.

(2) See Ch. 9, below.

TABLE XXXII

BRIDGE TRUST EXPENDITURE

Year	Total Expenditure £	No. of Concerns	Year	Total Expenditure £	No. of Concerns
1750-51	948	3	1789-90	663	3
1751-52	651	1	1790-91	1,121	3
1752-53	690	3	1791-92	1,703	3
1753-54	643	3	1792-93	2,267	4
1754-55	650	3	1793-94	2,452	4
1755-56	610	2	1794-95	2,661	4
1756-57	3,873	3	1795-96	2,090	4
1757-58	16,089	3	1796-97	2,508	4
1758-59	14,729	3	1797-98	383	3
1759-60	15,335	4	1798-99	487	3
1760-61	25,883	5	1799-1800	437	2
1761-62	25,816	4	1800-01	2,421	4
1762-63	20,652	4	1801-02	2,114	4
1763-64	28,658	3	1802-03	2,135	4
1764-65	26,499	4	1803-04	840	3
1765-66	26,723	4	1804-05	462	3
1766-67	20,506	4	1805-06	1,499	4
1767-68	22,434	4	1806-07	1,751	4
1768-69	8,818	4	1807-08	6,127	5
1769-70	13,331	4	1808-09	2,064	4
1770-71	3,248	3	1809-10	14,125	5
1771-72	22,269	4	1810-11	5,752	4
1772-73	3,531	4	1811-12	53,892	6
1773-74	6,698	4	1812-13	55,908	6
1774-75	8,831	5	1813-14	189,728	7
1775-76	13,793	5	1814-15	322,083	8
1776-77	10,300	6	1815-16	322,531	8
1777-78	9,293	6	1816-17	322,490	8
1778-79	4,330	5	1817-18	271,350	7
1779-80	2,970	5	1818-19	136,771	6
1780-81	5,469	4	1819-20	136,695	6
1781-82	1,427	4	1820-21	5,041	5
1782-83	1,375	2	1821-22	4,346	6
1783-84	1,388	3	1822-23	4,340	6
1784-85	1,939	4	1823-24	3,836	6
1785-86	2,171	4	1824-25	161,571	8
1786-87	690	3	1825-26	174,635	9
1787-88	725	3	1826-27	124,749	9
1788-89	678	3	1827-28	122,738	9

TABLE XXXII(cont'd.)

BRIDGE TRUST EXPENDITURE

Year	Total Expenditure £	No. of Concerns
1828-29	126,203	9
1829-30	129,386	9
1830-31	135,310	9
1831-32	80,040	9
1832-33	93,213	9
1833-34	33,831	9
1834-35	55,524	9
1835-36	35,678	9
1836-37	20,169	9
1837-38	16,542	9
1838-39	26,509	9
1839-40	33,450	8
1840-41	23,178	9
1841-42	10,077	8
1842-43	37,763	8
1843-44	12,147	8
1844-45	6,911	7
1845-46	6,604	7
1846-47	4,368	7
1847-48	4,658	7
1848-49	4,848	7
1849-50	4,880	7
1850-51	3,818	6

CHAPTER 8

INVESTMENT IN CANALS AND RIVER NAVIGATIONS

In formulating estimates of navigation expenditure in the period 1750-1850 the first major problem was to collect details of the total number of concerns, in the absence of any contemporary parliamentary returns. The comprehensive list comprising Tables XXXIIIA and XXXIIIB below had to be constructed piecemeal from such contemporary sources as Phillips, and Priestley(1) with some assistance from later parliamentary investigations.(2) The modern research of Hadfield, Willan and others(3) proved valuable for many waterways of the south and west of Britain but was less useful for areas of East Anglia(4) and the North of England. The various authorities consulted seldom conflicted over names and dates of origin,(5) but confusion abounded over mileages. Part of this problem may be due to the shortening of some canals during the 1820's in the attempt to meet the demands of increasing traffic. But it seems more likely that discrepancies over mileages arose because of the inclusion

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(1) J. Priestley, Account of Navigable Rivers, Canals and Railways, (1831). J. Phillips, A General History of Inland Navigation, (1792).
(2) P.P. 1883, XIII, 1.
(3) Hadfield, op. cit. Willan, op. cit. Temple Patterson, op. cit., etc.
(4) Several of the River Authorities in East Anglia were very helpful in this respect.
(5) Although they do sometimes, and, as is well known, Priestley describes several canals as they were proposed and not as they were eventually completed.

TABLE XXXIIIA. Navigation Origin

1750	Navigation	Origin	Mileage	Material Examined
	Aire & Calder	1699	80	1775-1850
	Avon (Warwicks.)	1639	17	
	Avon (Wilts.)	1700	15	
	Beverley Beck	1726	3	
	Cam	1703	7	1751-1850
	Colne	1623	8	
	Dane	1720	?	
	Dee	1734	8	
	Derwent (Yorks.)	1702	38	1805-1827
	Don	1726	32	1764-1769
	Exe	1539	5	1768-1849
	Fal	1678	11	
	Foss Dyke	-	11	
	Idle	1720	10	
	Itchen	1665	14	1832-1850
	Kennet	1720	18	
	Lark	1700	14	1780-1810
	Lea	1425	33	1779-1849
	Lune	1749	3	
	Medway	1664	16	1750-1850
	Mersey	1720	50	
	Nene	1725	75	1769-1848
	Orwell	?	9	
	Great Ouse	1649	20	1759-1850
	Little Ouse	1670	22	1773-1850
	Yorks. Ouse	1732	70	1761-1832
	Roding	1737	2	
	Severn*	1503	42	1843-1847
	Stour (Essex)	1706	36	1824-1850
	Stour (Kent)	1514	20	
	Thames*	1771	146	1785-1850
	Tone	1699	27	1750-1850

TABLE XXXIIIA. Navigation Origins, (cont'd.)

1750 Navigation	Origin	Mileage	Material Examined
Trent	1699	72	1798-1850
Wear	1716	18	
Weaver	1721	24	1750-1850
Welland	1571	22	1773-1820
Wey	1671	20	1750-1850
Witham	1671	32	1818-1850
Wye	1662	?	
Yare	1670	80	

TABLE XXXIIIB. Navigation Origins

Date	Navigation	Mileage	Material Examined	No. of Concerns Known	No. of Concerns Unknown
(Carried over from Table XXXIIIA)				22	18
1753-54	Cart	5		22	19
1755-56	Sankey	12		22	20
1757-58	Blyth	9	1762-1850	23	20
	Ivel	12		23	21
1758-59	Calder & Hebble	22	1775-1850	24	21
1759-60	Bridgewater Canal	39	1760-1805	25	21
	Clyde			25	22
1763-64	Louth	14		25	23
1765-66	Trent & Mersey Canal	96		25	24
1766-67	Staffs. & Worcs. Canal	64		25	25
1767-68	Ancholme	20		25	26
	Driffield	11	1816-1850	26	26
1768-69	Bo'ness Canal	7		26	27
	Birmingham Canal	23	1768-1850	27	27
	CoventrymCanal	33	1768-1850	28	27
	Droitwich	7		28	28
	Forth & Clyde Canal	35	1791-1835	29	28
1769-70	Oxford Canal	91	1773-1850	30	28
1770-71	Leeds & Liverpool Canal	143	1783-1850	31	28
	Monkland Canal	3		31	29
1771-72	Chesterfield Canal	46	1793-1826	32	29
	Thames (Comms.)	76	1787-97, 1830-50	33	29
1772-73	Chester Canal	19		33	30
	Market Weighton Canal	11		33	31
1773-74	Bure	9		33	32
	St. Columb Canal	6		33	33
1774-75	Thames (City)	70	1785-1850	34	33
1776-77	Dudley Canal	11		34	34
	Stourbridge Canal	6		34	35
	Stroudwater	8	1777-1850	35	35

TABLE XXXIIIB. Navigation Origins, (cont'd.)

Date	Navigation	Mileage	Material Examined	No. of Concerns Known	No. of Concerns Unknown
1777-78	Erewash	12		35	36
1778-79	Basingstoke Canal	37	1796-1849	36	36
1781-82	Bourne	3		36	37
1783-84	Birmingham & Fazeley Canal	21		36	38
	Thames & Severn Canal	30	1796-1850	36	38
1785-86	Arun	13		37	38
1788-89	Shropshire Canal	10		37	40
	Mombridge Canal	2		37	41
1789-90	Andover Canal	22		37	42
	Cromford Canal	15	1795-1844	38	42
1790-91	Glamorgan Canal	25	1801-1849	39	42
	Gipping	16		39	43
	Stowmarket	16	1790-1845	40	43
1791-92	Combe Hill Canal	3		40	44
	Hereford & Gloucester	51		40	45
	Leicester Canal	16	1791-1831	41	45
	Leominster Canal	18		41	46
	Manchester, Bolton & Bury Canal	15		41	47
	Melton Mowbray Canal	11		41	48
	Neath Canal	13		41	49
	Rother	11		41	50
	Worcester & Birmingham Canal	30		41	51
1792-93	Horncastle	11		41	52
	Lancaster Canal	60	1806-1849	42	52
	Monmouth Canal	11		42	53
	Wyreley & Essington Canal	24		42	54
1793-94	Barnsley Canal	15	1793-1825	43	54
	Brecon & Abergavenny Canal	33	1798-1823	44	54

TABLE XXXIIIB. Navigation Origins, (cont'd.)

Date	Navigation	Mileage	Material Examined	No. of Concerns Known	No. of Concerns Unknown
1793-94	Caister Canal	3		44	55
	Chelmer & Blackwater	13		44	56
	Crinan Canal	9		44	57
	Dearne & Dove Canal	14	1807-1820	45	57
	Derby Canal	18	1806-07	46	57
	Ellesmere Canal	56		46	58
	Gloucester & Berkley Canal	16		46	59
	Grand Junction Canal	130	1793-1848	47	59
	Grantham Canal	33	1798-1849	48	59
	Leicester & Northants Canal	24	1841-1844	49	59
1793-94	Nutbrook Canal	4	1827-1850	50	59
	Oakham Canal	15		50	60
	Shrewsbury Canal	17		51	61
	Stamford & Keadby Canal	15		50	62
	Stratford on Avon Canal	25	1842-1846	51	62
	Ulverston Canal	1		51	63
	Warwick & Birmingham Canal	23		51	64
	Warwick & Wapton Canal	15		51	65
1794-95	Ashby Canal	30		51	65
	Huddersfield Canal	23	1809-1821	52	65
	Kennet & Avon Canal	57	1794-1850	53	65
	Montgomery (East) Canal	16		53	66
	Peak Forest Canal	7		53	67
	Rochdale Canal	35	1793-1801	54	67
	Sleaford Canal	13		54	68
	Somerset Coal Canal	11	1806-07	55	68
	Swansea Canal	17	1812-50	56	68

TABLE XXXIIIB. Navigation Origins, (cont'd.)

Date	Navigation	Mileage	Material Examined	No. of Concerns Known	No. of Concerns Unknown
1795-96	Ivelchester	8		56	69
	Newcastle-under-Lyme Canal	3		56	70
	Salisbury - Southampton Canal	7	1795-1803	57	70
	Wilts. & Berks. Canal	60	1795-1850	58	70
1796-97	Aberdeen Canal	19	1837-1843	59	70
	Grand Western	24		59	71
	Tamar	3		59	72
1798-99	Newcastle-under-lyme Junction Canal	1		59	73
1799-1800	Isle of Dogs Canal	1	1799-1850	60	73
1800-01	Thames & Medway Canal	7		60	74
1801-02	Croyden Canal	9		60	75
	Leven Canal	3		60	76
	Grand Surrey Canal	4		60	77
1802-03	Glenkenn Canal	25		60	78
1803-04	Caledonian Canal	23	1803-1850	61	78
	Tavistock Canal	4	1803-1850	62	78
1806-07	Ribble	11		62	79
1807-08	Adur	14		62	80
	Royal Military Canal	30	1807-34	63	80
1810-11	Aberdeen Canal	7		63	81
	Bridgewater & Taunton	15		63	82
	Grand Union	23		63	83
	Lydney	1		63	84
1811-12	Nidd	9		63	85
	Pen	4		63	86
1812-13	Kidwelly & Llanelly Canal	9	1824-1833	64	86
	Regent's Canal	9		64	87
	Walsham & Dilham Canal	7		64	88

TABLE XXXIIIB. Navigation Origins, (cont'd.)

Date	Navigation	Mileage	Material Examined	No. of Concerns Known	No. of Concerns Unknown
1813-14	Loughan	12		64	89
	Wey & Arun	18	1811-1844	65	89
1814-15	Newport Pagnell	1		65	90
1815-16	Montgomery (West) Canal	8		65	91
	Pocklington Canal	9	1817-1844	66	91
	Sheffield Canal	4	1830-1843	67	91
1817-18	Edinburgh & Glasgow Union Canal	32	1816-1820	68	91
	Portsmouth & Arundel	5	1830-1831	69	91
1819-20	Bude Canal	35		69	92
	Carlisle Canal	11		69	93
1821-22	Tennant Canal	5		69	94
1823-24	Torrington Canal	6		69	95
1824-25	Hertford Union Canal	1		69	96
	Kensington Canal	2		69	97
	Lower Medway	6	1824-1850	70	97
1825-26	Baybridge	2		70	98
	Liskeard & Looe Canal	6		70	99
1826-27	Alfold Canal	6		70	100
	Birmingham and Liverpool	49	1826-1843	71	100
	Macclesfield	29		71	101
1827-28	Glastonbury	14	1827-1837	72	101
	Wisbech	16		72	102
1834035	Chard	14		72	103
1835-36	Birmingham Branches	22	(see text)	73	103
1836-37	Parrett	12	1836-1850	74	103
1837-38	Stourbridge Extn. Canal	2		74	104
1840-41	Birmingham - Warwick Junction	4		74	105

or exclusion of canal branches by various authorities. Apart from specialist studies of individual waterways[1] the only general authority which fully clarifies the problem of canal branches is Hadfield, and his work has been followed in this regard wherever possible in constructing the annual mileage totals.

Since it proved possible to collect a 50 per cent to 60 per cent sample in terms of mileage for much of the period under review, it was decided that a straightforward average cost per mile method was viable for formulating total expenditure estimates, and an extrapolation method was unnecessary. The method used in the present study is a combination of the mileage system and construction cost approach outlined by Segal in connection with American canals.[2] The extant financial records of as many concerns as possible were examined and the relevant expenditure material was extracted. These figures are set out annually in column one of Table XXXIV below, with the mileages they represent in the next column. The average outlay figure per mile thus derived in the third column was then multiplied by the 'unknown'[3] mileage for which no expenditure figures were discovered. The observed and estimated outlays were then added to give the figures set out in the last column of Table XXIV in a manner similar to the average turnpike estimated of Table XV above. There can be fewer objections to the 50 per cent to

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(1) P.A.L. Vine, op. cit. K. Clew, op. cit. D. Tew, op. cit., etc.
(2) Carter Goodrich, Canals and American Economic Development, (Columbia, 1961), pp. 170-171.
(3) 'Unknown' means unobserved in this context as above.

60 per cent sample of canal material in an average per mile method than the 5 percent turnpike sample.

To begin with, it is clear from Table XXXIIIA and XXXIIIB, that the canal and river navigation sample does not suffer from the London bias of the turnpike sample material. The observed canal data is by comparison very well distributed geographically from the Tone and Tavistock concerns in the West Country through the Oxford, Trent, and Lancaster companies up to the Caledonian Canal.(1) Equally, the sample size is large enough to give good coverage of varying canal gauges. Admittedly it does not include the exceptional extremes of the Gloucester and Berkeley and Bude Canal, but it does give a reasonable representation of the normal seven foot narrow gauge such as the Oxford(2) and the normal broad gauge of the Grand Junction.(3) The sample also comprises a good cross-section of river navigations as well as canals. Moreover, the combination of mileage and outlay methods overcomes objections to a mileage system alone through not accounting for qualitative improvements.(4)

The mileages set out in Tables XXXIIIA and XXXIIIB are the eventual mileages of each waterway by 1850, since these Tables do not include any 'renewal' act seeking extensions of powers but solely the act of origin. However, in constructing the series of annual mileages in

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(1) So.R.O., DD/MK. D.R.O., L1258/2,3,12. B.L., Dep. a16. B.T.H.R., RAC 2/28, 29. B.T.H.R., RAC 2/47, B.T.H.R. RAC 2/11. So.R.O.
(2) B.L. Dep.16. B.T.H.R. RAC 2/28, 29.
(3) B.T.H.R., CJC 23/1-7, 10, 15.
(4) Goodrich, op. cit.

Table XXXIV the authorities cited above have been followed wherever possible. Generally the mileage open was divided by the years spent in constructing a particular section, substantial time lags being taken into account wherever possible. For example, the Erewash Canal Company took from 1777 to 1779 to construct 12 miles of canal.(1) Assuming most of 1777 and 1779 were spent on construction(2) this gives 12 miles finished in three years, which yields a crude construction rate of four miles per year. Undoubtedly this is over-simplified because more time may well have been passed in preparation during the first year and more in putting finishing touches in the last.(3) Again, time spent digging tunnels can interfere with this method of estimating canal mileages, although this factor is not so important as it appears at first sight, since canal companies were in the habit of finishing their tunnels in due course after opening a canal line on either side. From the waterways where construction period information is available an average rate of four miles per annum has been derived. This figure has been used to 'spread' the mileage open of canals with unknown construction periods.

A similar construction period averaging method has been used with rivers, although at first sight this seems misleading. Some

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(1) Hadfield, Canals of the East Midlands, op. cit. p. 270.
(2) Such assumptions have not been made where more detailed information survived.
(3) Goodrich, op. cit.

TABLE XXXIV. BRITISH QUASI-NET NAVIGATION INVESTMENT

Date	Known Expenditure £	Known Mileage	Average Per Mile £	Unknown Mileage	Unknown Expenditure £	Total Mileage	Total Expenditure £
1750-51	1,102	63	17	879	14,943	942	16,045
1751-52	2,004	70	29	872	25,288	942	27,292
1752-53	4,231	92	46	850	39,100	942	43,331
1753-54	1,670	70	24	876	21,024	946	22,694
1754-55	1,821	70	26	877	22,802	947	24,623
1755-56	1,623	70	23	881	20,263	951	21,886
1756-57	4,459	92	48	863	41,424	955	45,883
1757-58	839	50	17	913	15,521	963	16,380
1758-59	5,561	70	79	897	70,863	967	76,424
1759-60	14,333	95	151	885	133,635	980	147,968
1760-61	16,016	119	135	871	117,585	990	133,601
1761-62	16,585	191	87	809	70,383	1,000	86,968
1762-63	16,522	202	82	808	66,256	1,010	82,778
1763-64	16,627	170	98	848	83,104	1,018	99,731
1764-65	28,501	212	134	816	109,344	1,028	137,845
1765-66	11,197	216	51	822	41,922	1,038	53,119
1766-67	15,547	196	79	853	67,387	1,049	82,934
1767-68	20,606	210	98	861	84,378	1,071	104,984
1768-69	45,283	264	172	843	144,996	1,107	190,279
1769-70	67,230	224	300	935	280,500	1,159	347,730
1770-71	56,700	199	284	1,012	287,408	1,211	344,108
1771-72	36,874	205	180	1,063	191,340	1,268	228,214
1772-73	66,316	269	246	1,122	276,012	1,391	342,328
1773-74	86,474	385	225	1,053	236,925	1,438	323,399
1774-75	95,944	474	202	1,012	204,424	1,486	300,368
1775-76	101,930	582	175	1,023	179,025	1,605	280,955
1776-77	123,886	596	208	1,048	217,984	1,644	341,870

TABLE XXXIV. British Quasi-net Navigation Investment (cont'd.)

Date	Known Expenditure £	Known Mileage	Average Per Mile £	Unknown Mileage	Unknown Expenditure £	Total Mileage	Total Expenditure £
1777-78	109,554	578	190	1,114	211,660	1,692	321,214
1778-79	71,037	517	137	1,205	165,085	1,722	236,122
1779-80	56,769	599	95	1,144	108,680	1,743	165,449
1780-81	70,835	617	115	1,133	130,295	1,750	201,130
1781-82	46,808	612	77	1,146	88,242	1,758	135,050
1782-83	52,657	667	79	1,102	87,058	1,769	139,715
1783-84	59,868	878	68	899	61,132	1,777	121,000
1784-85	61,994	882	70	906	63,420	1,788	125,414
1785-86	72,767	886	82	913	74,866	1,799	147,633
1786-87	81,052	890	91	929	84,539	1,819	165,591
1787-88	92,164	964	96	877	84,192	1,841	176,356
1788-89	99,612	968	103	890	91,670	1,858	191,282
1789-90	100,645	972	104	908	94,432	1,880	195,077
1790-91	92,388	924	99	978	96,822	1,902	189,210
1791-92	174,555	1,051	166	887	147,242	1,938	321,797
1792-93	160,393	969	165	1,015	167,475	1,984	327,868
1793-94	415,228	1,147	448	891	399,168	2,038	814,396
1794-95	348,896	1,040	335	1,109	371,515	2,149	720,411
1795-96	426,974	1,296	329	[illegible],970	319,130	2,266	746,104
1796-97	289,227	1,298	223	1,092	243,516	2,390	532,643
1797-98	331,184	1,383	239	1,119	267,441	2,502	598,625
1798-99	402,161	1,347	298	1,237	368,626	2,584	770,787
1799-1800	484,271	1,459	332	1,178	391,096	2,637	875,367
1800-01	423,998	1,500	283	1,188	336,204	2,688	760,202
1801-02	277,947	1,403	198	1,330	263,340	2,733	541,287
1802-03	336,206	1,417	237	1,357	321,609	2,774	657,851
1803-04	308,196	1,427	216	1,386	299,376	2,813	607,572
1804-05	335,940	1,464	229	1,385	317,165	2,849	653,105

TABLE XXXIV. British Quasi-net Navigation Investment (cont'd.)

Date	Known Expenditure £	Known Mileage	Average Per Mile £	Unknown Mileage	Unknown Expenditure £	Total Mileage	Total Expenditure £
1805-06	363,874	1,380	264	1,499	395,736	2,879	759,610
1806-07	292,856	1,551	189	1,361	257,229	2,912	550,085
1807-08	352,896	1,528	231	1,407	325,017	2,935	677,913
1808-09	383,527	1,576	243	1,380	335,340	2,956	718,867
1809-10	430,813	1,568	275	1,409	387,475	2,977	818,288
1810-11	411,461	1,574	261	1,431	373,491	3,005	784,952
1811-12	413,081	1,710	241	1,321	318,361	3,031	731,442
1812-13	415,969	1,756	237	1,292	306,204	3,048	722,173
1813-14	440,324	1,700	259	1,369	354,571	3,069	794,895
1814-15	422,664	1,789	236	1,302	307,272	3,091	729,936
1815-16	413,336	1,626	245	1,487	364,315	3,113	777,651
1816-17	552,114	1,717	321	1,414	453,894	3,131	824,409
1817-18	354,109	1,633	217	1,512	328,104	3,145	682,213
1818-19	484,550	1,802	269	1,353	363,957	3,155	848,507
1819-20	427,087	1,639	260	1,531	398,060	3,170	825,147
1820-21	334,854	1,612	208	1,580	328,640	3,192	663,494
1821-22	269,699	1,652	163	1,558	253,954	3,210	523,653
1822-23	371,160	1,570	236	1,655	390,580	3,225	761,740
1823-24	333,480	1,469	227	1,773	402,471	3,242	735,951
1824-25	377,189	1,548	244	1,710	417,240	3,258	794,429
1825-26	402,835	1,629	247	1,652	408,044	3,281	810,879
1826-27	538,381	1,732	311	1,565	486,715	3,297	1,025,096
1827-28	588,791	1,729	340	1,584	538,560	3,313	1,127,351
1828-29	643,937	1,738	370	1,594	589,780	3,332	1,233,717
1829-30	573,804	1,676	342	1,673	572,166	3,349	1,145,970
1830-31	525,268	1,749	300	1,617	485,100	3,366	1,010,368
1831-32	436,602	1,667	262	1,717	449,854	3,384	886,456

TABLE XXXIV. British Quasi-net Navigation Investment (cont'd.)

Date	Known Expenditure	Known Mileage	Average Per Mile	Unknown Mileage	Unknown Expenditure	Total Mileage	Total Expenditure
	£		£		£		£
1832-33	380,678	1,624	234	1,770	414,180	3,394	794,858
1833-34	307,225	1,520	202	1,883	380,366	3,403	687,591
1834-35	331,195	1,502	220	1,910	420,200	3,412	759,395
1835-36	367,214	1,542	238	1,879	447,202	3,421	814,416
1836-37	381,502	1,493	255	1,939	494,445	3,432	875,947
1837-38	376,683	1,505	250	1,938	484,500	3,443	861,183
1838-39	407,480	1,519	268	1,940	519,920	3,459	927,400
1839-40	455,030	1,556	292	1,912	558,304	3,468	1,013,334
1840-41	469,737	1,581	297	1,893	562,221	3,474	1,031,958
1841-42	491,349	1,553	316	1,928	609,248	3,481	1,100,597
1842-43	364,580	1,508	242	1,980	479,160	3,488	843,740
1843-44	360,943	1,716	210	1,777	373,170	3,493	734,113
1844-45	408,790	1,677	244	1,818	443,592	3,495	852,382
1845-46	317,151	1,426	222	2,071	459,762	3,497	776,913
1846-47	323,847	1,410	230	2,089	480,470	3,499	804,317
1847-48	244,863	1,362	180	2,137	384,660	3,499	629,523
1848-49	264,751	1,223	216	2,276	491,616	3,499	756,737
1849-50	198,651	1,227	162	2,272	368,064	3,499	566,715
1850-51	133,655	857	156	2,642	412,152	3,499	545,807

rivers were certainly navigable to a degree before companies were formed for their improvement, but in practice the majority of rivers with post-1750 improvement acts seem to have been the more difficult ones which were not previously navigable.

The total mileages in Tables XXXIV are in any case concerned with rivers on which money was spent and not with 'free' rivers which were navigable naturally. Thus the Severn in particular, has not been included in the mileage figures until money began to be spent on it in the 1840's, and the Thames has been treated similarly prior to the Commissioners of 1771.(1) A number of other rivers have been dealt with in this manner and the mileage totals at various dates in this study are therefore an under-estimate of the total British navigable waterways.

A further complication in dealing with river navigation is that expenditure for the purpose of improving transport facilities becomes almost inextricably confused in some cases with money spent on drainage schemes. In the present study this applies particularly to the money spent on the Great Ouse in the Bedford Level scheme. The figures for this outlay have been derived from the Receiver General's Accounts(2) and an attempt has been made to separate the expenses of land reclamation from money laid out on improving the river. Nevertheless,

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(1) Although previous attempts had been made to improve the Thames, notably in the seventeenth century. But for the purposes of the present study serious post-1750 improvements commence in 1771. See, F.S. Thacker, op. cit.

(2) Cambs. R.O.

there is almost inevitably some confusion at the margin and it is probable that the Bedford Level figures are too high. A similar problem affects the Welland River figures in relation to the Deeping Fen drainage scheme,[1] and the Wisbech navigation figures as taken from the records of the Nene Outfall Commissioners[2] who were fundamentally far more concerned with drainage problems than with transport.

River navigation and canal works also became entangled at times with harbour and dock improvements.[3] The outstanding example of this ambiguity in the present series arises in the case of the Isle of Dogs System.[4] Therefore the Isle of Dogs figures from at least 1810 are concerned as much with money spent on dock facilities as with outlay on the Thames. In any case the Thames is confusing since it was divided among several authorities, a situation which obtained with several other rivers such as the Medway and which is an added complication in calculating mileages.

Above Staines the Thames Commissioners[5] were responsible

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(1) Lincs. R.O.
(2) W.N.R.A.
(3) This problem did not arise elsewhere because the incidence of survival of pre-1850 harbour and navigation Commissioners' records is apparently very poor. Brightlingsea, Colchester, Grimsby, Harwich, Maldon, Newport and Yarmouth have no pre-1850 records concerned with either harbours or rivers. The only pre-1850 harbour Commissioners' Accounts encountered in the present investigation are those for Southampton, (S.C.A.) apart from Government material on such ports as Ramsgate.
(4) W. Stern, op. cit.
(5) Their Minute Books in the Berks. R.O. contain no accounts and although the Oxford R.O. has some pre-1750 and some post-1840 accounts it has little for the period under review. The pre-1830 figures under Thames Commissioners in Appendix E below, must be treated with extreme caution because they are based on dubious entries in the Engineers' personal account books in Reading Public Library, The 1829 account was apparently the only one presented to parliament.

for the river and below Staines the City of London was in control.[1] Further inflation of canal construction costs is caused by the unavoidable inclusion of the cost of tramways where these were constructed by the canal company.[2]

The remaining major criticism of the average per mile method employed in formulating the estimates is that it confuses construction costs and routine maintenance. However, as discussed above,[3] outlays under the heading of repair or maintenance frequently include sums spent on new works or improvements. This expenditure does constitute new investment and if not counted as such then the burden on the economy is under-estimated. Admittedly because of the difficulties of separating current and capital outlay in repair expenditure the present estimates constitute a quasi-investment series as for turnpikes, including a part of current maintenance costs but excluding all transfer payments. The full meaning of this is perhaps best illustrated by the examples of accounts cited below in Table XXXV from the Chesterfield, Glamorgan, Grand Junction and Huddersfield canal accouts.[4] The underlined transfer payment sums clearly emerge as a more important deduction than the discrimination of current and capital repair outlay.

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(1) This expenditure is fully recorded from 1785 in the City Chamberlain's account, see App. E., but whether the money was also used East of London Bridge and whether the Port of London and Isle of Dogs accounts were concerned solely with wharves and buoys is not clear. For mileage purposes the Chamberlain's accounts have been assumed to cover the whole river from Staines to the mouth, and the Isle of Dogs outlay to be on the canal and docks.

(2) See above, p.10.

(3) Ch. 1 above.

(4) C.P.L. G.R.O. QAW2. B.T.H.R. CJC 23/10, 15. B.T.H.R. HRP 6/8.

The Chesterfield and Glamorgan accounts illustrate fully how large a proportion of routine canal expenditure could take the form of dividend payments.(1) The Grand Junction account gives a detailed breakdown of maintenance expenditure in a year when official construction was finished. The Huddersfield figures give the relative proportions spent on land and also emphasize the vast cost of tunnelling in the primitive state of contemporary technology.

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(1) Although dividends naturally varied widely depending on canals' relative financial success and profitability.

TABLE XXXV. Detailed Canal Accounts

CHESTERFIELD CANAL 1810-11 (Routine Expenditure)

	£		£
Porters	597	Incidentals	450
Salaries	613	Rents	380
Repairs	1,618	6½% Dividend	6,407
Work	140	Interest	2,482

TOTAL £12,687

GLAMORGAN CANAL 1814-15 (Routine Expenditure)

	£		£
Salaries	1,225	Incidentals	450
Law	438	Dividends	8,000
Repairs	3,073		

GRAND JUNCTION CANAL - Breakdown of ½ year 1812 (Maintenance)

Timber	1,850	Bricks	9,685	Implements	753
Cutting	6,100	Puddling	1,128	Reservoir	457
Sundries	2,490	Tunnel	6,438	Tunnel	1,746
Steam	570	Fences	84		
Bridges	972	Locks	252		
Railroad	98	Incidentals	5		

HUDDERSFIELD CANAL (Paid 1794-1809)

	£
Surveys, Legal Fees and Acts of Parliament	17,276
Tunnel	108,898
East District	84,711
West District	108,033
Purchases and Damage of Land	25,351
Miscellaneous	12,675
TOTAL	356,944

Perhaps the most notable aspect of the total quasi-net expenditure estimates in Table XXXIV is the high level of total outlay achieved from 1825 to 1845 when impact of the developing railway network might have been expected to have resulted in less canal construction activity. Moreover, this apparent high level of construction cannot be attributed partially to inflation in the manner possible for some of the 1800-1815 outlay.(1) Rather it is a symptom of the fact that the combination of mileage estimates with observed construction expenditure does succeed in registering the considerable 1820-1840 outlay on expanding canal prisms, radical shortening, doubling of tunnels and general modernization. Much of this outlay was met by the large revenue at this time which many canals also used for high dividends and to establish reserve funds.(2) The period also saw the construction of 'motorway' canals such as the Birmingham and Liverpool, - wide, straight, level and very expensive to construct.(3) The Aire and Calder system was expanding(4) as a complement to the railway system in its region, since it was well able to compete for bulk cargoes. The Birmingham Canal system saw much further development in relation to the railways as it enjoyed the overwhelming advantage of extensive inter-urban short hauls.(5)

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(1) See below, Ch. 9.
(2) Although this varied widely between concerns, the majority were paying some sort of dividends during the 1820's.
(3) Hadfield, Canals of the East Midlands, op. cit p. 124-5
(4) Duckham, The Yorkshire Ouse, op. cit.
(5) Hadfield, ibid.

Moreover, far from demonstrating the short-sightedness of contemporaries unable to see that the railways would eventually 'win', the continuing canal investment shows to some extent that the comparative advantages of the two systems were by no means clear cut before 1850.(1) Many of the early railways in Britain and the Uunited States were successful because of exaggerated passenger revenues.(2) The feebleness of the early locomotives, their unreliability and vast consumption of fuel and water rendered the railways an expensive form of bulk transport until after the 1850's. The attempts to use stationary engines, and the experiment with atmospheric pressure and other forms of power transmission were serious efforts to find alternatives to the severe lack of power of contemporary locomotives.(3) Canal carriers continued to use horses because trials had shown that steam-engines used so much fuel as to render the pay-load of a powered barge uneconomic.(4) Certainly canals froze in the winter and suffered from lack of water in dry summers, despite strenuous efforts to overcome the latter as traffic increased. The canal system also suffered from its own inter-company disputes and from railway company politics. However, even if canal investment in the period 1820-1840 is considered an ill-advised rearguard action by vested monopoly interests the fact that it took place is indisputable both from company accounts and minute books and from the physical evidence on the ground.

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(1) Fogel, op. cit. Fishlow, op. cit.
(2) Fogel, ibid.
(3) C. Hadfield, Atmospheric Railways, (Newton Abbot, 1968)
(4) Hadfield, The Canal Age, op. cit. p. 137

For the rest the pattern of the estimates is what might have been expected: a relatively low level of quasi-net investment, under £50,000 per annum pre-1760, rising with the first wave of investment following the Bridgewater Canal, tailing off before a second wave in 1770 and then declining before the massive efforts following the 1793 mania. War seems to have had little impact in slowing down canal investment, possibly because canals between two points generally had to be completed before they could expect to reap the full benefit of the investment.(1) Nor do business cycles seem to have affected canal investment substantially.(2)

In any case it should be emphasized that the method of constructing the mileage estimates in the present study is subject to an error which renders short-term fluctuations in the total expenditure series unreliable. In practice many canals were not built in regular annual sections of four or five miles, which is the assumption made in effect in estimating the mileages above. Rates of construction varied according to difficulties of terrain, quality of workmanship, prism size, engineering skill, and other variable factors. Although the number of concerns covered should make the mileage error marginal for most years, it is probably sufficient to require caution in analysing any short-term deviations in the mileage series. For example, it is likely that rivers such as the Derwent at Derby or the Tone in

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(1) Goodrich, op. cit. pp. 174-6.
(2) See below, Ch. 9, for more detailed discussions of these points.

Somerset became almost disused on completion of the rival canal. Logically, the mileages of these river navigations should have been deducted from the total mileage series in Table XXXIV above, but this has not been done in the present study since it is not clear in many such cases precisely when a river became disused or indeed if it did at all.(1) For the period 1750-1770 the proportion of observed mileage in Table XXXIV is far smaller than could be desired, despite a relatively low level of construction activity during this period, because the sample size is probably inadequate to absorb the expenditure variation of individual concerns. However, coverage of the remaining 81 years is adequate in this respect, while possibly over-estimating total outlay through inclusion of some money spent on drainage, port and other schemes

As in the case of roads the specific impact of canal development on the economy falls into the categories of direct and indirect benefit, forward linkages, and backward linkages.(2) But again, although the statistical techniques for measuring the effect of canals on the economy may be straightforward in theory, lack of data makes them difficult to apply. A comprehensive analysis of direct and indirect benefits can only be gained by comparing the post-construction costs of transport by each waterway with the previous viable alternatives.(3) It is certainly easier to reconstruct the costs of the waterways system

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(1) Hadfield, British Canals, op. cit.
(2) See p. 182, above.
(3) See above, Ch. 6, and Goodrich, op. cit. pp.225-247.

than of the road system. Estimation of the amount of money spent on canals, their profitability, and the eventual stock of waterways is more straightforward than with turnpikes or parish highways since the incidence of survival of waterway records has been much higher. For this reason it is also easier to reconstruct canal transport facilities in terms of the number of barges[1] and tonnage rates. Jackman sets out an impressionistic attempt in this direction in his Appendix 8 on navigation transport costs,[2] which succeeds in demonstrating that the impact of canals was frequently dramatic and immediate.[3] Caution is necessary since canal promotional material was as apt to exaggerate the defects of the road system as the later railway prospectuses were to misrepresent the defects of canals, and all publicity material must remain suspect.[4] Nevertheless, it is clear that the difficulty in calculating the direct and indirect benefits of canals does not arise so much in reconstructing the costs of the waterways system as in the dearth of reliable information on the alternative road[5] and coastal transport systems. Some of the effects of cheaper transport are incalculable in any case.

Measurements of backward linkages - the specific resource demands of an innovation or improvement, are by contrast more difficult

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(1) Apparently there was a census of barges taken for defence purposes in 1793. But since ~~it appears that the only surviving register is in Staffs. R.O. and~~ there are apparently no parliamentary returns it is possible the census was not completed. Nevertheless it should be possible to build up a picture of barge traffic from surviving toll ledgers and other canal company records.

(2) Jackman, op. cit. p.274.

(3) Jackman, ibid.

(4) Jackman, ibid.

(5) See above, Ch. 6.

for canals than for roads. The absence of any standardized parliamentary returns for the period under review makes it impossible to gain an overall breakdown of navigation expenditure into such classifications as labour, materials, salaries, law charges and so forth as for turnpikes.(1) It might be feasible to base such an analysis on the expenditure pattern of one big navigation company, or even of several with similar accounting systems. But waterway accounting generally varied so widely in classification(2) as to place considerable obstacles in the way of constructing meaningful, comprehensive expenditure breakdowns. Furthermore, relatively few detailed series of expenditure from the act of origin are complete:(3) any breakdown for canals nationally based on so narrow a sample would therefore need to be used with so many reservations that it was not thought worth while to attempt it in the present study.

However, it is clear that a high proportion - possibly between 60 per cent and 70 per cent - of the total quasi-net investment on new works and repairs was absorbed by labour costs. Probably 40 per cent or more was accounted for by payment for unskilled earth-

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(1) See above, p.132, passim.
(2) See above, Ch. 2, Section II.
(3) Many individual quasi-net expenditure series in App. E below, contain gaps in any case. For many waterways not included in the present study, such as the Worcester and Birmingham, it proved possible to discover expenditure details in the form of lump sums for particular purposes over a number of years, as for the Huddersfield Canal in Table XXXV above. But although useful for examples, such material has been rigorously excluded from the expenditure estimates because it would have been too vaguely distributed between years and thus would have detracted from the accuracy of the observed outlay estimates.

shifting power while 20 to 30 per cent went to skilled men such as carpenter, bricklayers, masons, and so forth. Of the remaining 30 to 40 per cent of the quasi-net total, possibly ten per cent went on bricks for locks and tunnels post-1760. It is unfortunate that canal brick consumption cannot be measured more accurately since it is likely that this expenditure helped to swell Shannon's brick index considerably in places.(1) Another 20 to 30 per cent of canal outlay in the present quasi-net estimate would have been accounted for by such overheads as salaries, incidentals, legal and committee expenses. The remaining 10 or 15 per cent would have been spent on mortar-lime, stone,ironwork, timber, shovels, wheelbarrows, ropes and so forth. However, it is likely that the canal demand for iron for bridges and aqueduct troughs(2) was at best, marginal and spasmodic.(3) Timber was used in moderate quantities for lock-gates and piling, but again, the effect on the timber import statistics(4) was relatively slight in comparison with the demand from housing and shipping.

All of the above percentages are merely impressions gathered in the course of the present enquiry and are not statistically based for the reasons outlined above. Apparently the forward and

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(1) H.A. Shannon, 'Bricks - A Trade Index 1785-1849', Economica, 1934
A.K. Cairncross and B. Weber, 'Fluctuations in Building in Great Britain, 1785-1849', E.H.R., Vol. IX, 1956

(2) Iron was tried for lockgates but apparently without much success since the example was not followed.

(3) This is only to be expected in view of the much smaller impact of the far greater expenditure of the railways on the iron industry than has been assumed in the past. Fishlow, op. cit.

(4) Cairncross and Weber, ibid.

backward linkages of the canal system were weak and spasmodic and did not directly help to promote new industrial enterprises. But the impact of the canals on the economy can be seen even impressionistically to have been very powerful in terms of direct and indirect benefit, particularly if canals can be assumed to have lowered average haulage costs by between a quarter and a half of their former level. Unfortunely accurate calculations of those benefits is difficult because of the dearth of reliable material on transport costs in the pre-canal situation.

CHAPTER 9

THE BURDEN ON THE ECONOMY

The estimates of quasi-net investment expenditure on turnpikes, parish highways, bridges and waterways, presented in the preceding chapters are totalled in Table XXXVIA below. In order of reliability the waterway figures are the most soundly based series for the period as a whole since it proved possible to gather the largest representative sample of figures from original sources for this sector.(1) The turnpike material is fully reliable after 1820 as it is based on parliamentary returns. Yet confidence in these does not so much emanate from respect for the efficiency of the contemporary administration as from the results yielded by an examination of many of the original turnpike returns throughout the country.(2) From these it appears that the government did succeed after 1820 in persuading most trusts to co-operate in filing returns. The pre-1820 turnpike estimates by comparison should be used more cautiously, because although based on original material the sample employed was small.(3)

The bridge trust material may be used with confidence as far as it goes, but unfortunately it proved impossible to determine the total number of bridge trusts and so to estimate the expenditure of these for which no original material was found. The pre-1792 county bridge estimates

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(1) See above, Chapter 8.
(2) See above, Chapter 4.
(3) See above, Chapter 4.

are based on arbitrary assumptions which may well have led to some overstatement.(1) The least reliable of the estimates set out in Table XXXVIA below are undoubtedly those for parish highways. Various parliamentary returns provide some guidance for the 19th century and the basic sample is larger. But for the 18th century there are no parliamentary figures of value, the sample is smaller and the final figures involve several arbitrary assumptions, in addition to much higher gearing than was necessary after 1800.(2) Nonetheless, the original material examined does reveal that highway rate assessments were more frequent than has been assumed and that highway outlay was therefore at a higher level. That it also remained very stable is not so remarkable in the conservative context of the parish and statute labour. This is all the more so when it is considered that the principal roads, with the heaviest traffic, were steadily being removed from direct parish responsibility by the turnpikes throughout the period.

The inclusion of observed figures from original account books into the constituent estimates in Table XXXVIA below tends to give an impression of spurious accuracy. The final series has therefore been rounded into thousands of pounds in order to show that the present estimates are still crude, although they are more accurate than any previous attempts to calculate investment through the capital authorized.

The figures of capital authorized for canal and river navigations were derived from Gayer, Rostow and Schwartz and are set out in

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(1) See above, Chapter 7.
(2) See above, Chapter 7.

Table XXXVIB below.[1] Direct comparison with the navigation estimates in Table XXXVIA clearly shows little correlation between the money authorized and most of the money spent. Apart from the inevitable bunching effects of authorization the discrepancy is undoubtedly due in part to the total omission of investment outlay paid for from current revenue, which is inherent in any examination of capital raised. Such an approach would be even more misleading in the case of turnpikes where the debt represented only those extraordinary repairs and improvements which could not be met out of current revenue.[2]

The full extent of how misleading examination of the capital authorised can be is further emphasised by investigation of the relationship between legislation and construction activity. Admittedly Gayer, Rostow and Schwartz state clearly that their figures concern navigation bills and not acts. Yet this is even more confusing since then it is not clear whether the capital was authorised or simply petitioned for, and Table XXXVIC reveals the full extent of the discrepancy for navigation legislation.[3] In the first place there are many examples of navigation bills being presented to parliament and subsequently thrown out through the opposition of the vested interests of landowners or existing navigation concerns. Furthermore, there are instances of canal companies such as the Dorset and Somerset which did a little desultory digging after obtaining

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(1) See Table for references.
(2) S. Pollard, "Growth and Distribution of Capital", op. cit. pp.350-2.
(3) This problem is dealt with in detail for turnpikes in Appendix F below.

its act and then took no further action so that the powers eventually lapsed. Column one of Table XXXVIC therefore gives Gayer, Rostow and Schwartz's[1] list of navigation bills; Column two shows Marshall's[2] list of navigation acts which extends the series up to 1832, and Column three gives the actual number of original acts which were followed by construction activity, as encountered in the present study. However, it appears that Marshall's series,and presumably that of Gayer, Rostow and Schwartz include legislation to extend the powers of existing concerns. This may well account for part of the lack of correlation between the columns.

Moreover, the failure of Gayer, Rostow and Schwartz to give figures of capital authorised for waterways after 1819, although partly due to difficulties of availability,[3] is also subject to criticism. For it implies that navigation investment expenditure becomes negligible after that date and while this may be true relative to railway outlay by the late 1830's, waterway outlay was nonetheless considerable reaching levels about 1830 surpassing those of the 1790's.

Table XXXVIB below also gives the estimates of net investment in roads and waterways made by Deane and Cole, and Pollard for the period

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(1) Gayer, Rostow and Schwartz, op. cit. pp. 69, 95, 121, 147.
(2) Marshall, Digest of All the Accounts, (1833), p.175 of Part II.
(3) The figures of capital authorised for 1788-1819 are conveniently set out in P.P. 1819, III, 291 but thereafter it is apparently necessary to examine individual acts.

under review.[1] Their authors readily admit these to be crude estimates, but it would seem that Deane and Cole appear to be too generous and that Pollard is nearer the mark. Overall these estimates by some of the most experienced researchers in the field would tend to confirm the order of magnitude outlined in the present study.

At the same time it must be emphasised that the final total investment figures for all sectors studied, as set out in Table XXXVIA, constitute a quasi-net investment series through the inclusion of some current maintenance costs.[2] In this sense the constituent and final series are all overestimates of the 'pure' net investment effort of the economy. Yet the present estimates also exclude the considerable investment effort of the new road construction of enclosure and improvement commissioners and to that extent are an underestimate. It has not proved possible within the confines of the present study to make any useful survey of the expenditure incurred by such commissioners and the most that can be done here is to note that it was substantial and was overwhelmingly new construction. It is likely that when taken with the number of unaccounted bridge trusts this omission far outweighs the inclusion of some current costs. It is thus probable that the present final estimates for the transport infrastructure[3] in Table XXXVIA considerably understate the total net investment outlay.

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(1) See Table for reference.
(2) See Chapter I above.
(3) Not including railways or docks.

One of the most significant aspects of the present series is the degree of insulation they exhibit from variations in business activity due to war, speculation, or changes in trading patterns.(1) Turnpike outlay for example, seemed notably unaffected by the Seven Years War, the American War of Independence or the Napoleonic Wars.(2) It exhibits generally steady growth up to the boom of 1825 when it falls off to 1830 and climbs to its highest peak in 1837. Far from being deterred by the war, bridge expenditure reaches its height towards the end of the Napoleonic Wars, with a secondary peak in 1825. Canal expenditure experiences a minor peak in 1760, falling somewhat to 1765 before recovering to 1770. Thereafter navigation investment declined to 1785, rises slightly to 1790, and then spectacularly to 1795. It remains on a high plateau until a drop between 1815 and 1820, and is succeeded by a sharp rise to 1830, Investment then fell off somewhat but recovered to 1840 before plummeting down afterwards. Part of the high level expenditure by all undertakings during the Napoleonic Wars is undoubtedly due to the violent inflation of that period, but much of it may also be due to excess funds created by the disruption of normal trading patterns through the war.

However, the nature and scale of transport undertakings at this time also help to explain the relative lack of fluctuations in their investment activities. Pressure to turnpike a road, improve a river, or

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(1) Some fluctuations in individual series in Table XXXVIA are caused by technical defects in their construction. For example, the drop in parish surveyors expenditure for a few years after 1800 can be attributed almost entirely to a change in gearing.

(2) See Chapter 7 above.

to build a canal or bridge usually came from landowners, lawyers and clergymen. Such men were not primarily speculators but were principally interested in the indirect benefits of transport improvements to their estates and other interests in their locality, as well as a relatively safe and profitable investment for excess funds. This pattern changed somewhat during the 1793 "mania" when canals did attract a speculative element. But usually they continued to be promoted by local notables as were the early railways, and this system only altered radically as the Stock Exchange developed under the impact of the railway boom of the mid-1840's.

Moreover, a great deal of construction activity on roads and waterways was financed directly from high revenues in a manner reminiscent of modern corporate practice(1) and was similarly independent of the money market and the motives of investors. Although such high revenues were themselves dependent on general prosperity, they were insulated for transport undertakings from depression in individual industries because canals and roads served all industries. Thus as another parallel to modern business turnpike and navigation investments as a whole were more strongly influenced by the demands and opportunities for new services from increasing or potential traffic, and by the threat of competition from other waterways or proposed railways, than by the state of the money market. Furthermore, the political influence of companies established by act of parliament was frequently exerted to gain extended legislative powers to offer investors more favourable terms when difficulties were encountered in raising funds. After

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(1) Particularly during the 1820's and 1830's. See Chapter 8 above.

1817 both canals and turnpikes could borrow government money from the Exchequer Loan Commissioners, although this was generally considered a last resort since the conditions were stringent.(1) In any case large-scale undertakings like navigation companies enjoyed access to other funds and credit which were denied to smaller contemporary businesses.

Moreover, the very nature and scale of the construction work carried out by canals in particular was not subject to fluctuations. Many canals experienced difficulty in forcing their programmes through, frequently because of the perpetual underestimates of their engineers. But equally they usually succeeded in keeping their construction under way because generally a canal could realize little hope of any return to investors unless it was finished.(2) By comparison, differences of scale and nature caused losses to be cut by builders in selling or abandoning half-finished factories or houses.(3) In addition large-scale incomplete civil engineering works tend to deteriorate rapidly and the difficulties and expense of attracting and assembling another skilled and experienced labour force when a project has been suspended can be enormous. Again, in the case of roads, once a cutting through a hill, had been started, it generally had to be finished for fear of landslips, and if a section had been excavated for resurfacing, this would have to be carried out. Even more clearly in the case of bridges, a half completed structure is worse

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(1) See above, Chapter 5, and M. Flinn, 'The Poor Employment Act of 1817', E.H.R. Vol. XIV, 1961.
(2) For further detailed discussion of the point, see Goodrich, op. cit. pp. 174-6.
(3) D.J. Olsen, op. cit.

than useless and it is significant in this respect that the Thames Bridges begun towards the end of the Napoleonic War boom were all completed despite subsequent depression.(1)

But apart from the inherent insulation of canals, bridges, and turnpikes, from short term fluctuations, clearly illustrated in the individual sets of figures in the appendices belowm there are two other cushioning influences at work in Table XXXVIA. The first of these is the impact of central government expenditure on transport improvements, particularly the money spent after 1815 on the Holyhead Road and bridges. This heavy outlay was especially counter-cyclical in effect as it occurred during a period of severe depression,(2) and the money spent on the Highland roads and on the Caledonian Canal may have had a similar impact although this was not so markedly increased after the war.

The second strong counter-cyclical influence came from parish highway expenditure. It is possible that even in the pre-1795 period, labourers were employed on the highways as an alternative to, or partly as a consequence of, poor relief, and apparently this practice reached considerable proportions during the Napoleonic Wars and afterwards.(3) This type of outlay was clearly at its highest during periods of maximum unemployment and depression and at its lowest in years of prosperity.

Thus despite the caution with which some of the series must be used the relative lack of cyclical fluctuations is not unreasonable in the light of the above analysis.

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(1) See above, Chapter 7.
(2) Though not in its cause which was primarily an extension of Irish politics. See above, Chapter 5.
(3) For further discussion of this vexed and difficult question, see above, Chapter 7.

TABLE XXXVIA

BRITISH QUASI-NET INVESTMENT IN ROADS AND WATERWAYS, 1750-1850

	Turnpikes	Parish Highways	Bridges	Canals and Rivers	Investment in Roads and Waterways
	£	£	£	£	£
1750-51	65,654	870,355	8,313	16,045	960,367
1751-52	80,600	887,120	8,241	27,292	1,003,253
1752-53	96,296	879,842	9,420	43,331	1,028,889
1753-54	110,107	876,918	15,118	22,694	1,024,837
1754-55	108,144	868,753	14,780	24,623	1,016,300
1755-56	115,866	878,005	7,930	21,886	1,023,737
1756-57	121,396	884,773	12,342	45,883	1,064,394
1757-58	113,745	886,266	25,689	16,380	1,042,080
1758-59	124,687	883,594	29,834	76,424	1,114,539
1759-60	135,233	877,308	24,875	147,968	1,185,384
1760-61	134,868	879,548	57,278	133,601	1,205,295
1761-62	133,247	871,494	43,096	86,968	1,134,805
1762-63	152,807	883,850	29,067	82,778	1,148,502
1763-64	299,018	895,164	44,273	99,731	1,338,186
1764-65	144,780	889,693	39,384	137,845	1,211,702
1765-66	179,057	889,928	49,883	53,119	1,171,987
1766-67	189,986	901,764	60,991	82,934	1,235,675
1767-68	174,458	906,605	61,134	104,984	1,247,181
1768-69	178,129	923,950	34,363	190,279	1,326,721
1769-70	178,125	909,542	65,141	347,730	1,500,538
1770-71	201,812	879,889	54,773	344,108	1,480,582
1771-72	205,190	877,495	75,624	228,214	1,386,523
1772-73	215,443	887,601	49,806	342,328	1,495,178
1773-74	224,134	882,268	66,548	323,399	1,496,349
1774-75	221,695	922,625	76,121	300,368	1,520,809
1775-76	189,933	911,212	81,938	280,955	1,464,038
1776-77	218,282	883,575	83,530	341,870	1,527,257
1777-78	260,277	890,203	70,703	321,214	1,542,397
1778-79	248,637	882,207	78,445	236,122	1,445,411
1779-80	265,124	887,866	120,825	165,449	1,273,815
1780-81	272,470	903,669	55,854	201,130	1,433,123
1781-82	290,047	878,585	13,487*	135,050	1,317,169
1782-83	302,463	931,094	44,980	139,715	1,418,252
1783-84	285,097	886,157	26,528	121,000	1,318,782
1784-85	316,677	870,021	45,394	125,414	1,357,506
1785-86	332,499	882,298	66,611	147,633	1,429,041
1786-87	350,225	882,475	49,950	165,591	1,448,241
1787-88	428,582	930,639	37,745	176,356	1,573,322
1788-89	367,467	943,770	29,958	191,282	1,532,477
1789,90	404,329	1,007,658	31,953	195,077	1,639,017

TABLE XXXVIA (cont'd.)

British Quasi-net investment in Roads and Waterways, 1759-1850

	Turnpikes	Parish Highways	Bridges	Canals and Rivers	Investment in Roads and Waterways
	£	£	£	£	£
1790-91	406,449	1,021,889	37,061	189,210	1,654,609
1791-92	404,546	966,221	34,538	321,797	1,727,102
1792-93	409,177	1,041,173	34,767	327,868	1,812,985
1793-94	415,027	1,045,196	43,161	814,396	2,317,780
1794-95	446,485	1,043,566	33,947	720,411	2,244,409
1795-96	445,117	1,101,757	45,412	746,104	2,338,390
1796-97	444,712	1,088,116	52,430	532,643	2,117,901
1797-98	493,578	1,062,698	45,588	598,625	2,200,489
1798-99	492,039	1,054,673	41,587	770,787	2,359,086
1799-1800	562,261	1,101,012	43,710	875,367	2,582,350
1800-01	591,074	1,175,703	48,390	760,202	2,575,369
1801-02	591,265	853,903	54,236	541,287	2,040,691
1802-03	630,139	892,964	48,556	657,851	2,229,510
1803-04	657,584	871,562	43,254	607,572	2,179,972
1804-05	686,923	923,721	42,481	653,105	2,306,230
1805-06	721,433	951,341	59,671	759,610	2,492,055
1806-07	742,329	936,591	50,442	550,085	2,279,447
1807-08	788,713	975,503	47,773	677,913	2,489,902
1808-09	788,948	976,789	63,083	718,867	2,547,689
1809-10	812,699	987,907	90,768	818,288	2,709,662
1810-11	863,600	1,019,296	95,230	784,952	2,763,078
1811-12	937,701	1,016,487	150,461	731,442	2,836,091
1812-13	946,006	1,241,550	168,245	722,173	3,077,974
1813-14	912,544	1,303,647	312,010	794,895	3,323,096
1814-15	946,820	1,342,152	452,266	729,936	3,471,174
1815-16	1,019,333	1,276,225	473,882	777,651	3,547,091
1816-17	1,008,590	1,141,003	436,099	824,409	3,410,101
1817-18	1,053,210	1,179,396	366,649	682,213	3,281,468
1818-19	1,048,922	1,245,357	228,428	848,507	3,371,214
1819-20	1,125,542	1,155,500	222,243	825,147	3,328,432
1820-21	1,121,219	1,166,157	90,446	663,494	3,041,316
1821-22	1,107,944	1,154,862	65,369	523,653	2,851,828
1822-23	1,248,742	1,151,493	73,726	761,740	3,235,701
1823-24	1,385,097	1,158,614	66,149	735,951	3,345,811
1824-25	1,784,469	1,179,926	238,588	794,429	3,997,412
1825-26	1,520,822	1,219,467	276,526	810,879	3,827,694
1826-27	1,484,340	1,271,589	222,085	1,025,096	4,003,110
1827-28	1,433,851	1,037,126	213,147	1,127,351	3,811,475
1828-29	1,455,105	1,109,039	214,507	1,233,717	4,012,368
1829-30	1,439,382	1,106,637	207,395	1,145,970	3,899,384

TABLE XXXVIA (cont'd.)

British Quasi-net investment in Roads and Waterways, 1759-1850

	Turnpikes	Parish Highways	Bridges	Canals and Rivers	Investment in Roads and Waterways
	£	£	£	£	£
1830-31	1,399,039	1,088,662	211,780	1,010,368	3,709,849
1831-32	1,411,153	1,088,662	164,067	886,456	3,550,338
1832-33	1,420,298	1,088,662	168,392	794,858	3,472,210
1833-34	1,445,100	1,106,887	110,338	687,591	3,349,916
1834-35	1,490,389	1,114,186	127,684	751,395	3,483,654
1835-36	1,538,002	1,151,766	89,301	814,416	3,593,485
1836-37	1,591,027	1,217,494	75,403	875,947	3,759,871
1837-38	1,477,795	1,029,224	71,320	861,183	3,439,522
1838-39	1,479,019	1,264,138	72,735	927,400	3,734,292
1839-40	1,469,713	1,310,209	89,790	1,013,334	3,883,046
1840-41	1,341,895	1,367,644	84,735	1,031,958	3,826,232
1841-42	1,325,960	1,365,846	73,984	1,100,597	3,866,387
1842-43	1,215,541	1,370,738	101,855	843,740	3,531,874
1843-44	1,152,966	1,371,870	69,437	734,113	3,328,386
1844-45	1,131,298	1,374,317	66,200	852,382	3,424,197
1845-46	1,129,602	1,770,558	59,743	776,913	3,736,816
1846-47	1,117,740	1,845,692	60,792	804,317	3,828,541
1847-48	1,052,973	1,848,019	61,819	629,523	3,592,334
1848-49	996,507	1,858,420	70,018	756,737	3,681,685
1849-50	863,749	1,725,848	59,303	566,715	3,215,615
1850-51	963,340		62,342	545,807	

TABLE XXXVIB

CAPITAL AUTHORIZED FOR RIVER NAVIGATIONS AND CANALS[1]

1788-89	115,000	1804-05	300,000
1789-90	133,500	1805-06	500,000
1790-91	377,400	1806-07	600,000
1791-92	803,700	1807-08	200,000
1792-93	1,063,600	1808-09	300,000
1793-94	3,159,700	1809-10	600,000
1794-95	2,588,500	1810-11	400,000
1795-96	384,700	1811-12	2,000,000
1796-97	1,306,000	1812-13	1,500,000
1797-98	157,000	1813-14	300,000
1798-99	192,000	1815-15	100,000
1799-1800	35,000	1815-16	300,000
1800-01	539,000	1816-17	200,000
1801-02	932,000	1817-18	500,000
1802-03	277,000	1818-19	200,000
1803-04	600,000		

ESTIMATES OF NET INVESTMENT IN ROADS AND WATERWAYS

1. Deane and Cole, op. cit. pp.237-238.

Roads	£m.	Canals and River Navigations	£m.
1813	$3\frac{1}{2}$	1755-90	$2\frac{1}{2}$-3
1821	3	1790-1800	5-6
1830's	$3\frac{1}{2}$ per annum	1801,1835	11
1840's	$3\frac{1}{2}$ per annum		

2. Pollard "Growth and Distribution of Capital", op. cit. pp.350-2.

Turnpikes	£	Highways £	Canals and Rivers	
1760-90	200,000 p.a.		1760-65	100,000 p.a.
1815	700,000	1,200,000	1766-90	250,000 p.a.
1829	1,000,000	1,200,000	1790-1800	1,000,000 p.a.
1836	1,500,000		1800-20	1-2m. p.a.

(1) Gayer Rostow and Schwartz, op. cit. pp. 69,95,121,147.

TABLE XXXVIC

NAVIGATION ACTS

	G.R.S.[1]	Marshall[2]	Present Study
	Bills	Acts	Acts
1788-89	3		2
1789-90	3		2
1790-91	8		3
1791-92	10		9
1792-93	9		4
1793-94	26		20
1794-95	18		9
1795-96	11		4
1796-97	14		3
1797-98	8		0
1798-99	5		1
1799-1800	1		1
1800-01	10		1
1801-02	11	11	3
1802-03	8	7	1
1803-04	6	6	2
1804-05	6	5	0
1805-06	9	10	0
1806-07	9	7	1
1807-08	8	8	2
1808-09	7	6	0
1809-10	13	9	0
1810-11	7	6	4
1811-12	14	10	2
1812-13	9	9	3
1813-14	5	10	2
1814-15	6	6	1
1815-16	7	6	3
1816-17	2	1	0

(1) G.R.S. - Gayer, Rostow and Schwartz, op. cit. pp. 69,95,121,147, see text.
(2) Marshall, Digest of All the Accounts, (1833), p.175 of Part II.

TABLE XXXVIC. Navigation Acts (cont'd.)

	G.R.S. Bills	Marshall Acts	Present Study Acts
1817-18	6	4	2
1818-19	5	4	0
1819-20		8	2
1820-21		4	0
1821-22		7	1
1822-23		1	0
1823-24		1	1
1824-25		7	3
1825-26		8	2
1826-27		8	3
1827-28		7	2
1828-29		6	0
1829-30		5	0
1830-31		5	0
1831-32		3	0
1832-33		5	0

However, outlay by all transport undertakings was often laggardly and meagre for new construction and improvement in terms of potential benefits to the national economy. There is considerable evidence that the wrong investment decisions were frequently taken and resources were misdirected. Investment decisions were made on the basis of information which was crude, misleading and inaccurate and usually propagandist.(1) Inevitably therefore, many roads were turnpiked and later abandoned through insufficient traffic, although sometimes they were re-turnpiked when traffic increased. There are several cases of canal companies such as the Dorset and Somerset, and Southampton and Salisbury(2) which obtained acts but did little construction work, and many more like the Basingstoke, Wey and Arun(3) and Oakham(4) which never discovered their theoretical traffic. If dividends are considered as one criterion of successful investment then Jackman reckoned that between a half and two-thirds of British canals before 1850 did not justify the capital outlay.(5) There are clearly many benefits which such a grossly oversimplified measure does not take into account,(6) the most outstanding being the radical lowering of transport costs wherever canals were constructed. But nevertheless it would seem that a substantial

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(1) See the prospectuses in the Goldsmith Library, Birmingham University Library, and the Phillips collection as cited above. A further excellent impression of more general contemporary company promotion can be gained from the British Museum collection of early company prospectuses for the Epsom Grandstand and so forth. B.M. 1881. b.23

(2) E. Welch, op. cit.

(3) P.A.L. Vine, op. cit.

(4) D. Tew, op. cit.

(5) Jackman. op. cit. p.420. It is also likely that examination of parliamentary papers would reveal similar situations for turnpike interest payments. But equally this is no real measure of the efficiency or relevance of a road.

(6) Goodrich, op. cit. p.241, 'The direct benefits conferred by canals are equal to the savings they effected in moving the nations commerce.'

amount of road and canal investment was misdirected, although it is also likely that as in America[1] the benefits accruing to the economy from the necessary canals far more than outweighed any money wasted on concerns for which there was little real demand.

Furthermore, the present enquiry can only reaffirm the views of previous researchers that a great deal of the money spent on the 18th century transport infrastructure was dissipated through maladministration. Yet the evidence of the present study does not support the contention that inordinate sums were squandered on parliamentary legal and land costs before the railways.[2] Rather it seems that canal investment in the 19th century to modernize 18th century waterways tended to be too little and too late for the economy as a whole,[3] because the managements were too frequently solely concerned with the maintenance of high dividends, leaving traffic to struggle with narrow prisms and tortuous bends as best it would. The Grand Junction Canal Company, for example, largely came into existence as a protest against the incompetence and extortion of the Oxford Canal Company and the inefficiency and ineptitude of the Thames Commissioners. The Birmingham Canal Company were frequently criticized for lack of water, grossly overcrowded locks, tortuous bends and a generally obsolete system long before they eventually undertook some modernization

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(1) Goodrich, op. cit. pp.238-248.
(2) Even turnpike renewal acts do not seem to have wasted a high proportion of the total outlay. See App. F. below.
(3) Although it can be argued that this meant less capital to be scrapped when the railways arrived. This could only be resolved by a relative cost-benefit analysis.

and improvement. There is pamphlet evidence available well before railways appeared, in addition to complaints and discussions in canal company minute books to show that some companies did abuse this monopoly position.(1) This could result in a generally inefficient distortion of internal trade patterns, with goods being sent by coastal shipping or by road, with long delays, accidents, and lighter loads.

Canal inefficiencies stemmed as much from selfish management policies as from incompetent administration, but with roads well-meaning intentions were frequently frustrated by poor administration. Whereas the canal system often suffered from too close attention to profits, roads were neglected through lack of financial incentives. Thus although highway rate assessments were far more common than has been assumed, nevertheless the lack of any monetary reward seems to have frequently resulted in the amateur highway surveyors wasting much of the resources put at their disposal. Leaving aside possible exaggeration of incompetence by propagandist contemporaries, it would also appear that much turnpike toll money was misused in primitive repair techniques. Periods of ill-directed excessive spending by turnpike trustees generally resulted in big loans and were therefore succeeded by intervals of the utmost parsimony as a trust struggled with its debt, the consequent neglect and deterioration of a road surface being very inefficient for the transport system as a whole. But above all, the trustees lacked any direct incentive, even where they possessed the

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(1) See Goldsmiths Library collection, Birmingham University Library collection, etc., op. cit.

necessary skills, to run their trust efficiently and attentively. Through lack of supervision, turnpike surveyors and treasurers tended to become lax in their duties and accounts, and inefficiency and apathy would come to permeate the whole organization.

By contrast county bridge money seems to have been closely administered and generally well spent.(1) Most counties seem to have come by the late 18th century if not earlier, to employ a semi-professional full-time bridge surveyor and repair work appears to have been competently carried out. Bridge companies seem to have been relatively efficient in the sense of building sound structures although sometimes they built cheaply initially and thenceforward the public was burdened with unnecessarily high tolls to keep the bridge in repair.(2)

All of the estimates in Table XXXVIA above are unrepresentative of the burden on the economy in the sense that they are all calculated at historic prices. In particular this means that the considerable inflation and consequent high prices of the Napoleonic War period are not comparable in real terms with preceding or succeeding levels of outlay.(3) The relative economic effort in terms of real resources employed was therefore far less than it appears in the years from 1793 to 1815, and conversely

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(1) See Smiles, op. cit. pp. 162-178 on Telford's experiences as county surveyor for Shropshire and the Webbs' impressions in the King's Highway, op. cit. Chapter VI.

(2) This seems to have been the case with the original Fulham and Battersea Bridges, both in addition being constructed with so many piers and arches as to seriously obstruct navigation. See T.F. Reddaway, op. cit. and Chapter 7 above.

(3) Gayer, Rostow and Schwartz, op. cit.

deflation and falling prices after 1815 mean that expenditure up to 1823 and in the early 1830's and 1840's was relatively greater in terms of real resources employed than it seems. Less construction activity was therefore carried out during the Napoleonic Wars than appears from a current value index and relatively more was carried out afterwards. In addition qualitative improvements due to greater engineering skill and better management and technology also probably resulted in higher productivity per pound spent in 1830 than in 1780. The Harecastle Tunnel for example originally took eleven years to complete in the 1760's and 1770's, whereas the new bore took only three years and was one third higher and almost double the width.(1) Yet while such improvements are almost impossible to weigh in money prices, it is relatively straightforward to adjust for price changes caused by inflation by producing a series of estimates at constant prices. This series, based on Deane and Cole,(2) is set out below in Table XXXVII.

TABLE XXXVII. CONSTANT PRICES

Year	Historic Prices £	Index	Constant Prices £	Year	Historic Prices £	Index	Constant Prices £
1750-1	960,367	85	1,299,320	1805-6	2,492,055	160	1,557,534
1755-6	1,023,737	85	1,204,396	1810-11	2,763,078	180	1,535,043
1760-1	1,205,295	95	1,268,731	1815-16	3,547,091	155	2,288,445
1765-6	1,171,987	98	1,195,905	1820-1	3,041,316	130	2,339,473
1770-1	1,480,582	92	1,351,835	1825-6	3,827,694	125	3,062,155
1775-6	1,464,038	100	1,464,038	1830-1	3,709,849	110	3,372,590
1780-1	1,433,123	105	1,364,879	1835-6	3,593,485	110	3,266,804
1785-6	1,429,041	108	1,323,186	1840-1	3,826,232	125	3,060,985
1790-1	1,654,609	108	1,575,618	1845-6	3,736,816	105	3,558,872
1795-6	2,338,390	130	1,798,761	1849-50	3,215,615	90	3,572,905
1800-1	2,575,369	175	1,471,639				

(1) Hadfield, British Canals, op. cit. p.146.
(2) Deane and Cole, op. cit. pp. 12-18, Fig. 7.

The Table above is an attempt to construct a series representing the real impact of the inland transport network in terms of resource demands. Such averaging of price trends must be used with caution since it is based on indexes which are not totally reliable, although they are the best available.

The majority of the efforts to analyse the specific impacts of the individual sectors above have foundered either on the difficulty of obtaining satisfactory breakdowns from the original material or on the unavailability of comparative comprehensive statistics. However, recent analysis of the resource demands of nineteenth century railways seems to show that the consequent forward and backward linkages had far less effect than had been assumed in the past.(1) It is therefore, highly unlikely that the much smaller scale of pre-railway transport network spending brought about any indirect industrial transformation. The most important result of the investment expenditure discussed in the present study is undoubtedly to be found in its radical lowering of transport costs(2) and the consequent expansion of markets, reduction of stocks and so forth.

The only surviving independent 18th century figures which might act as any sort of measure of construction activity are those for brick production and for timber imports.(3) As set out below in Table

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(1) Fishlow, op. cit.
(2) Both Fogel, op. cit., and Fishlow, op. cit., consider that the reduction in transport costs brought about in America by the waterways was far greater than the subsequent impact of the railways.
(3) T.S. Ashton, Economic Fluctuations in England, 1700-1800, (Oxford, 1959) pp. 89-105, for discussion of their limitations. Also, Cairncross and Weber, op. cit., and Gayer, Rostow, and Schwartz, op. cit. pp. 14, 69, 95, 121, 147, 186, 217, 255, 285, 318.

XXXVIIIA they rise together to 1790, fall off in 1795, to rise to another peak in 1810, and a spectacular increase in 1825; thereafter they fall off to recover slowly by 1840. Although fluctuations in these series might well be thought to bear some relation with variations in bridge and waterway outlays,(1) comparison does not show this to have been the case. For example, the navigation quasi-net investment series rises to an early peak in 1770, falls off to 1790, increases rapidly by 1795 to a plateau of high outlay which is maintained to 1815. The figures then decline to 1820, but climb to a peak in 1828-9 with some falling off to 1835, and thence a further rise to 1840. These trends of growth and decline do show some similarity with the timber and brick indexes, but the canal series peaks and troughs lag behind the others to such an extent that there is almost an inverse correlation at times. This would seem to emphasize the point that canal outlay on timber and bricks remained marginal to the demands from housing.

Available indexes for stone, throw little light on road construction since they are confined to building stone.(2) Other independent series such as those for the iron industry are similarly of little assistance in analysing the impact of transport sector resource demands since this demand would at the most have been marginal.(3)

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(1) See above, Chapters 6 and 8.
(2) Cairncross and Weber, op. cit.
(3) Gayer, Rostow and Schwartz, op. cit. pp. 18-19, 41-3. 72-4, 99, 127, 194, 291-2, for details of iron imports and exports and shipments on the Monmouthshire Canal, see discussion in Chapter 8 above.

For the rest, the best that can be attempted here is to measure the impact of this investment effort on the economy as a whole by expressing it as a percentage of the contemporary Gross National Product. Even this exercize has its dangers since estimates of the national product at this date can vary widely. However, if the estimates of Pollard[1] and Mitchell and Deane[2] are followed, the transport effort comes out as in Table XXXVIIIB below. With all its many defects and omissions this result of the present study is possibly the most accurate available, with the material at present extant.

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(1) S. Pollard, 'Growth and Distribution of Capital', op. cit. p. 362.
(2) Mitchell and Deane, op. cit. p. 366.

TABLE XXXVIIIA

BRICK PRODUCTION AND TIMBER IMPORTS

Year	Fir Timber Imports £000	Bricks 000,000 produced	Year	Fir Timber Imports £000	Bricks 000,000 produced
1750-51	60				
1751-52	59				
1752-53	72				
1753-54	78				
1754-55	60				
1755-56	70				
1756-57	69				
1757-58	60				
1758-59	71				
1759-60	67				
1760-61	56				
1761-62	66				
1762-63	56				
1763-64	83				
1764-65	94				
1765-66	108				
1766-67	116				
1767-68	84				
1768-69	102				
1769-70	110				
1770-71	99				
1771-72	109				
1772-73	124				
1773-74	119				
1774-75	120				
1775-76	123				
1776-77	142				
1777-78	126				
1778-79	120				
1779-80	86				
1780-81	86				
1781-82	79				
1782-83	85				
1783-84	125				
1784-85	144				
1785-86	115	358.8			
1786-87	172	495.6			
1787-88	169	635.8			
1788-89	175	668.2			

TABLE XXXVIIIA (cont'd.)

BRICK PRODUCTION AND TIMBER IMPORTS

Year	Fir Timber Imports £000	Bricks 000,000 produced
1789-90	157	590.3
1790-91	190	711.2
1791-92	190	749.9
1792-93	307	808.0
1793-94	232	908.9
1794-95	199	787.7
1795-96	179	559.3
1796-97	235	633.0
1797-98	158	517.7
1798-99	187	516.8

Year	Fir Timber Imports 1,000 Loads of 50 cu. ft.	Bricks 000,000 produced
1799-1800	151	421.3
1800-01	194	543.1
1801-02	167	686.6
1802-03	263	770.3
1803-04	297	818.8
1804-05	294	820.6
1805-06	264	889.4
1806-07	166	882.2
1807-08	267	836.4
1808-09	86	810.4
1809-10	156	826.8
1810-11	277	912.5
1811-12	320	945.1
1812-13	235	925.8
1813-14		835.1
1814-15	172	768.3
1815-16	311	778.0
1816-17	229	673.0
1817-18	240	701.7
1818-19	378	952.1
1819-20	415	1,101.6
1820-21	341	949.2
1821-22	392	899.2
1822-23	451	1.019.5
1823-24	512	1,244.7

Year	Fir Timber Imports 1,000 Loads of 50 cu. ft.	Bricks 000,000 produced
1824-25	582	1,463.2
1825-26	709	1,948.8
1826-27	556	1,350.2
1827-28	467	1,103.3
1828-29	470	1,078.8
1829-30	493	1,109.6
1830-31	457	1,091.3
1831-32	512	1,125.4
1832-33	494	971.9
1833-34	467	1,011
1834-35	489	1,152
1835-36	627	1,349
1836-37	623	1,606
1837-38	580	1,478
1838-39	647	1,427
1839-40	623	1,569
1840-41	692	1,678
1841-42	654	1,424
1842-43		1,272
1843-44		1,159
1844-45		1,421
1845-46		1,821
1846-47		2,040
1847-48		2,194
1848-49		1,461
1849-50		1,463

TABLE XXXVIIIB

THE BURDEN ON THE ECONONY

	Quasi-net Investment in Roads and Waterways	Estimated National Product	Investment in Roads and Waterways as % of National Product
	£000	£000	%
1770	1.48	140.0	1
1790	1.65	175.0	.94
1801	2.5	232.0	.88
1811	2,84	301.1	.94
1821	2.85	291.0	.98
1831	3.55	340.0	1
1841	3.87	452.3	.85
1851	3.21	523.3	.61

A P P E N D I X A

TURNPIKE RETURNS 1822-33 FOR 16 COUNTIES

The base material for this Appendix is to be found in the Quarter Sessions records of the respective County Record Offices. (see chapter 3 above).

A gap or the letter "m" in all the following appendices denotes that a figure is missing for the years concerned.

BERKSHIRE PARLIAMENTARY RETURNS

Year	Twyford - Theale Rd. 1736, 15m. £	Hinksey Rd. 1756, 7m. £	Reading - Hatfield Rd. 1768, 56m. £	Reading - Maidenhead 1806, 10m. £	Nuffield - Common - Wantage 1752, 26m. £
1822-23	1,685	212	2,356	1,301	292
1823-24	2,293		1,289	1,334	524
1824-25	2,435		1,498	1,426	705
1825-26	2,760				998
1826-27	1,896		1,564	2,453	792
1827-28	2,193	137	1,472	1,489	571
1828-29	2,245	412	2,457		579
1829-30	2,048		2,770	1,321	777
1830-31	2,522	451	1,726	1,633	477
1831-32	3,747	298	1,534		504
1832-33	2,998	357	1,602		416

Year	Shillingford - Reading 1764, 19m. £	Botley - Witney 1763, 17m. £	Fyfield - Newbridge 1733, 17m. £	Windsor Forest Rd. 1759, 17m. £
1822-23	552	3,882	1,020	1,468
1823-24	1,087	1,590	1,280	505
1824-25	1,616	2,395	1,274	675
1825-26	2,506	2,004	1,357	666
1826-27	4,417	1,510	1,329	512
1827-28	1,911	1,512	1,345	457
1828-29	1,086	1,630	1,104	534
1829-30	743	1,393	1,103	827
1830-31	711	1,321	1,130	900
1831-32	813	2,293	1,291	904
1832-33	844	1,981	1,360	1,084

BERKSHIRE PARLIAMENTARY RETURNS

Year	Speenhamland - Reading 1771, 9m. £	Andover and Chilton 1766, 42m. £	Beselsleigh - Hungerford 1771, 22m. £	Speenhamland - Marlborough 1770, 11m. £
1822-23	678	633	89	754
1823-24	835	869	78	762
1824-25	1,758	1,137	74	1,028
1825-26		624	94	
1826-27	803	686	167	1,060
1827-28	1,028	856	71	1,276
1828-29	1,071	782	73	1,019
1829-30	1,045	648	179	820
1830-31	1,115	693	74	932
1831-32	847		65	1,038
1832-33	1,223		853	939

Year	Fyfield Rd. 1736, 6m. £	Harwell - Streatley 1803, 9m. £	Chilton Pond Rd. 1756, 8m. £	Wooton Rd. 1768, 8m. £	Hurley Rd. £
1822-23					
1823-24	426	105	399	79	
1824-25	397	491	464	73	
1825-26	567	96	388	64	
1826-27	513	79	325	72	
1827-28	448	101	330	97	
1828-29	434	106	325	102	
1829-30	473		806	82	
1830-31	634	83	438	80	
1831-32	372	91	442	75	
1832-33	393	108	458	60	1,421 (N.R.)

BUCKINGHAMSHIRE PARLIAMENTARY RETURNS

Year	Bromham Rd. 1790, 12m. 2 Acts £	Beaconsfield - Stokenchurch Rd. 1794, 14m. £	Wendover - Oak Lane 1812, 17m. £	Bicester - Aylesbury Rd. 1770, 16m. £
1822-23			1,085	
1823-24		2,172	1,028	
1824-25		1,785	1,105	540
1825-26		1,990	964	478
1826-27		3,488	1,005	250
1827-28	357	4,132	1,104	155
1828-29	758	2,126	1,655	116
1829-30	498	2,069	725	97
1830-31	371	1,742	716	152
1831-32	443		747	129
1832-33	478	2,212	855	470

Year	Great Marlow - Stokenchurch 1791, 9m. 2 Acts £	Wendover - Buckingham 1795, 21m. £	Aylesbury - Hook liffe 1810, 14m. £	Buckingham - Newport Pagnell 1815, 14m. £
1822-23		1,494	173	566
1823-24	59	1,789	59	721
1824-25	216	1,378	127	794
1825-26	129	1,380	218	459
1826-27	178	1,936	87	641
1827-28	97	2,140	469	577
1828-29	107	2,152	685	501
1829-30	71	1,356		471
1830-31	93	587	83	446
1831-32	80	1,341	449	551
1832-33	65	1,009	103	

BUCKINGHAMSHIRE PARLIAMENTARY RETURNS

Year	Princes Risborough - Aylesbury 22m. £	Colnbrook Roads 1767, 16m. £
1822-23		2,144
1823-24		1,900
1824-25	1,102 (N.R.)	2,286
1825-26	1,594	2,822
1826-27	912	3,206
1827-28	1,937	3,002
1828-29	506	1,991
1829-30	494	1,855
1830-31	390	2,519
1831-32	257	3,516
1832-33	167	2,609

CAMBRIDGESHIRE PARLIAMENTARY RETURNS

Year	St. Neot's - Cambridge 1772, 18m. £	Newmarket Rd. 1745, 13m. £	Red Cross Turnpike 1766, 16m. £	Cambridge - Huntingdon Rd. 1813, 15m. £
1822-23	388	693	793	1,026
1823-24	481	637	432	1,102
1824-25	448	541	427	1,482
1825-26	427	520	381	1,415
1826-27	459	854	383	923
1827-28	452	733	411	899
1828-29	420	555	492	1,109
1829-30	423	1,054	746	1,026
1830-31	396	954	480	941
1831-32	474	689	449	801

CAMBRIDGESHIRE PARLIAMENTARY RETURNS

Year	Stump Cross Rd. 1763, 21m. £	Cambridge - Ely Rd. 1763, 34m. £	Royston South District 1711, 15m. £	Hauxton and Dunsbridge 1792, 19m. £
1822-23	1,350	1,065	1,374	836
1823-24	809	1,640	1,489	992
1824-25	1,256	1,974	1,248	1,174
1825-26	1,032	1,681	1,082	945
1826-27	1,218	1,266	1,103	1,211
1827-28	925	1,322	1,108	2,139
1828-29	1,149	1,250	1,297	1,252
1829-30	1,034	2,034	1,171	1,014
1830-31	1,643	1,834	1,330	1,530
1831-32	2,677	1,671	1,016	1,055

Year	Paper Mills Turnpike 1815, 9m. £	Royston Rd. 1769, 20m. £	Arrington Rd. 1797, 9m. £	Wrestlingworth and Potton 8m. £
1823-24	438	168	899	
1824-25	655	204	720	
1825-26	615	131	299	3,150 (N.R.)
1826-27	637	272	763	424
1827-28	1,022	423	454	303
1828-29	616	285	335	173
1829-30	786	226	236	175
1830-31	876	257	288	258
1831-32	706	281	385	178

DERBYSHIRE PARLIAMENTARY RETURNS

Year	Alfreton - Higham - Tibshelf Rd. 1786, 6m. £	Alfreton - Mansfield 1764, 15m. £	Ashford - Buxton Rd. 1810, 10m. £	Cavendish Bridge - Brassington 1777, 22m. £
1822-23	78	414	323	544
1823-24	181	489	321	707
1824-25	174	603	185	584
1825-26	282	534	424	635
1826-27	144	484	230	953
1827-28	141	445	385	1,253
1828-29	153	440	393	1,415
1829-30	270	418	320	1,689
1830-31	117	573	287	
1831-32	451	527	375	1,063
1832-33		434		913

Year	Chapel - Enterclough 1792, 22m. £	Chesterfield - Hernstone 1759, 58m. £	Chesterfield - Matlock Bridge 1760, 17m. £	Chesterfield - Worksop Rd. 1739, 15m. £
1822-23	1,263	1,998	586	511
1823-24	396	1,961	176	595
1824-25		2,056	227	322
1825-26		2,377	225	574
1826-27	440	2,619	215	359
1827-28	841	2,414	213	675
1828-29	262	1,999	205	387
1829-30	297	2,153	230	401
1830-31	274	2,321	236	336
1831-32	205	2,195	236	352
1832-33	299	2,017		529

DERBYSHIRE PARLIAMENTARY RETURNS

Year	Derby - Buxton Rd. 1764, 11m. £	Derby - Duffield Rd. 1756, 9m. £	Derby - Uttoxeter Rd. 1759, 18m. £	Garden Lane - Sheffield Rd. 1790 £
1822-23	363	386	503	512
1823-24	498	410	538	596
1824-25	517	411	1,831	718
1825-26	652	1,161	4,490	731
1826-27	445	333	637	563
1827-28		498	1,107	764
1828-29	650	455	699	928
1829-30	673	410	687	653
1830-31		427	557	638
1831-32	492	325	398	584
1832-33		303	521	

Year	Haddon - Bentley Rd. 1811, 14m. £	Heage - Duffield Rd. 1793, 5m. £	Idridgehay - Duffield Rd. 1808, 5m. £	Mansfield - Chesterfield Rd. 1759, 12m. £
1822-23	362	295	64	468
1823-24	377	407	77	1,311
1824-25	329	472	68	900
1825-26	377	835	93	2,133
1826-27	227	1,016	132	2,168
1827-28	276	1,369	76	714
1828-29	201	655	59	875
1829-30		442	257	1,197
1830-31		357	70	1,304
1831-32		292	62	929
1832-33	473			

DERBYSHIRE PARLIAMENTARY RETURNS

Year	Nottingham - Derby Rd. 1759, 6m. £	Wirksworth - Derby Rd. 1793, 7m. £	Wirksworth - Longston 1759, 15m. £	Nottingham - Newhaven 1759, 18m. 2nd. Div. £	
1822-23	482	110	692	297	
1823-24	557	291	644	280	
1824-25	237	198	1,409	699	
1825-26	346	184	667	282	
1826-27	358	257	612	237	
1827-28	1,317	181	620	205	
1828-29	1,307	402	893	300	1st Div.
1829-30	1,240	283	612	279	490
1830-31	608	255	1,118	269	814
1831-32	576	311	1,304	246	879
1832-33	495			175	1,009

Year	Ashby - Burton Rd. £	Mansfield - Tibshelf 1765, 16m. £	Tupton - Ashover 1766, 3m. £	Cromford - Langley Mill 1803, 13m. £	Ashborne - Ripley 1764, 12m. £
1822-23		512	111	226	165
1823-24		411	157	200	138
1824-25		588	173	317	140
1825-26		653	182	1,191	170
1826-27		378	181	1,083	132
1827-28		513	207	262	160
1828-29		550	235	323	170
1829-30	859	461	95	276	113
1830-31	3,318	430	187	276	187
1831-32	1,245		251	514	271
1832-33	749	1,008	149		339

DERBYSHIRE PARLIAMENTARY RETURNS

Year	Buxton Road 1725, 34m. £
1822-23	
1823-24	586
1824-25	405
1825-26	584
1826-27	
1827-28	387
1828-29	374
1829-30	562
1830-31	
1831-32	578
1832-33	450

DORSET PARLIAMENTARY RETURNS

Year	Weymouth & Melcombe Rd. 1761, 35m. £	Bridport & Broadwinsor 10m. £	Poole Rd. 1767,38m. £	Ringwood, Longham & Leigh 1759, 9m. £
1822-23	1,243		617	544
1823-24	1,345			264
1824-25	1,920			221
1825-26	1,818			451
1826-27	1,226			265
1827-28	894			248
1828-29	1,357	5,888 (N.R.)	1,050	377
1829-30	2,446			553
1830-31	3,159	197		526
1831-32	1,808	124		333

DORSET PARLIAMENTARY RETURNS

Year	Shaftsbury Turnpike 1753, 31m. £	Sherborne Turnpike 1753, 51m. £	Wareham Turnpike 1766, 29m. £	Dorchester & Wool Rd. 1769, 12m. £	Harnham, Blandford, & Dorchester 1756, 48m. £
1822-23	2,708	1,882	655	68	1,052
1823-24	1,835	1,067	630	65	1,612
1824-25	1,135	1,691	994	70	2,531
1825-26	2,323	1,390	803	47	3,282
1826-27	2,506	1,680	608	47	1,870
1827-28	2,419	2,823	521	71	2,813
1828-29	2,126	2,631	767	41	2,419
1829-30	1,520	908	1,226	287	2,654
1830-31	1,601	1,241	962	236	1,827
1831-32	1,133	1,269	1,588	486	1,682

Year	Maiden Newton Rd. 1777, 37m. £	Dorset Turnpike Poole Rd. 1756, 36m. £	Bridport Rd. 1754, 24m. £	Blandford & Poole 1767, 12m. £
1822-23	139	446	3,455	281
1823-24	260	588	2,714	
1824-25	331	527	5,142	328
1825-26	722	761	3,243	251
1826-27	433	559	1,937	246
1827-28	811	917	3,026	284
1828-29	1,050	931	2,103	609
1829-30	509	422	5,164	271
1830-31	238	957	8,282	296
1831-32	627	1,036	9,242	367

DORSET PARLIAMENTARY RETURNS

Year	Blandford & Wimborne 1765, 9m. £	Blackmore Turnpike 23m. £	Cerne Abbas Turnpike £
1822-23	136		
1823-24	125		
1824-25	127	4,491 (N.R.)	2,876 (N.R.)
1825-26	108	2,799	1,297
1826-27	114	805	341
1827-28	146	935	307
1828-29	114	807	429
1829-30	134	669	254
1830-31	259	664	436
1831-32	217	1,386	178

DEVON PARLIAMENTARY RETURNS

Year	Dartmoor & Roborough Rd. 1812, 9m. £	Bideford T.T. 1764, 43m. £	Ashburton & Totnes Trust 1761, 23m. £	Kingsbridge, Dartmouth & Modbury 1759, 15m. £
1822-23	7	78	908	722
1823-24	11	1,346	944	
1824-25	16		2,597	2,133
1825-26				
1826-27				
1827-28		4,054	847	954
1828-29		480	1,260	324

DEVON PARLIAMENTARY RETURNS

	Gt. Torrington	Countess Wear	Honiton - Ilminster	Newton Bushell	Okehampton
	1765, 39m.	1815, 2m.	1807, 14m.	25m.	1760, 37m.
Year	£	£	£	£	£
1822-23	90	67		164	
1823-24					
1824-25					
1828-29	2,599	142	1,037	496	1,143

	Plymouth - Tavistock	S. Molton	Tavistock	Totnes - Bridgetown	Tiverton
	16m.	1759, 41m.	1762, 38m.	1762, 33m.	1758, 86m.
Year	£	£	£	£	£
1822-23			1,073	2,011	2,335
1823-24		1,146			
1828-29	1,014	1,052	1,073	1,557	3,226

	Barnstaple T.T.	Dartmouth - Torquay	Axminster T.T.	Honiton Turnpike	Honiton - Sidmouth T.T.
	1763, 85m.	1765, 34m.	1754, 27m.	1754, 49m.	1816, 7m.
Year	£	£	£	£	£
1822-23	2,187		875	1,669	272
1823-24	1,608		1,061	1,156	277
1824-25	1,718	1,527		1,032	
1827-28	1,611	2,715	843	674	
1828-29	1,785	1,282	1,568	586	185

	E. Teignmouth, Dawlish & Exminster	Cullompton Trust	Exeter Trust	Lyme Regis
	10m.	1813, 6m.	1753, 155m.	1758, 34m.
Year	£	£	£	£
1822-23		125	6,156	1,355
1823-24	2,464 (N.R.)	127	7,224	
1824-25	1,540		8,494	
1826-27			8,679	
1827-28	212	34	9,873	
1828-29	325	86	8,503	667

	Moretonhampstead	Plymouth East	Stonehouse
	1772, 16m.	1758, 14m.	1751, 4m.
Year	£	£	£
1822-23	113	1,146	243
1823-24		1,302	464
1828-29	28	861	525

HERTFORDSHIRE PARLIAMENTARY RETURNS

Year	Welwyn Rd. - Lemford Mill Rd. 1730, 22m. £	Sparrows Herne Rd. 1762, 25m. £	Dunstable - Pondyards 1786, 10m. £	Wadesmill Rd. 1726, 28m. £
1822-23	1,315	2,837	1,449	2,821
1823-24	1,682	4,269	2,267	2,968
1824-25	1,752	4,131	2,211	3,520
1825-26	1,621	5,425	2,588	3,391
1826-27	1,549	3,171	3,079	4,325
1827-28	1,409	1,272	3,257	3,545
1828-29	2,132	1,627	2,981	3,702
1829-30	2,168	1,962	2,911	4,068
1830-31	2,633	1,956	2,047	3,764
1831-32	5,628	1,791	2,471	3,506
1832-33	3,656	1,765	2,672	3,752

Year	Watton Rd. 1757, 13m. £	Cheshunt Rd. 1725, 18m. £	Stevenage - Biggleswade 1720, 10m. £	St. Albans Rd. 1715, 11m. £
1822-23	622		1,016	2,363
1823-24	808		2,377	2,562
1824-25	747	5,354	1,931	1,820
1825-26	768	5,848	1,549	1,958
1826-27	697	5,128	3,029	2,290
1827-28	630	4,238	3,737	2,251
1828-29	721	5,116	1,747	2,096
1829-30	783	5,248	1,908	2,782
1830-31	1,013	4,012	1,572	2,994
1831-32	1,114	4,521	1,763	1,853
1832-33	936	3,415	1,128	1,662

KENT PARLIAMENTARY RETURNS

Year	Ashford - Ham St. 1793, 8m. £	Ashford - Maidstone 1793, 18m. £	Benenden Rd. 1769, 6m. £	Bethersden Rd. 1767, 18m. £
1822-23	263	952	204	495
1823-24	323	1,805	247	504
1824-25	363	1,235	278	
1825-26	329	908	228	506
1826-27	243	897	220	427
1827-28	192	1,375	324	382
1828-29	217	1,341	347	390
1829-30	348	1,099	329	364
1830-31	254	1,117	406	433
1831-32	262	1,613	342	708
1832-33	218	965	409	535

Year	Biddenden Rd. 1762, 5m. £	Ramsgate Rd. 1st Div. 1802, 8m. £	Biddenden - Boundgate 1766, 15m. £	Brandbridge Rd. 1767, 15m. £
1822-23	156		101	203
1823-24	156	998	115	372
1824-25	182	550	144	407
1825-26	174	1,021	514	372
1826-27	142	409	100	407
1827-28	135	382	96	373
1828-29	196	607	212	451
1829-30	130	640	389	683
1830-31	160	410	161	685
1831-32	142	393	270	594
1832-33	144	379	259	396

KENT PARLIAMENTARY RETURNS

Year	Canterbury - Barham 1802, 7m. £	Canterbury - Ramsgate, 2nd. Div. 1802, 7m. £	Canterbury - Sandwich 1802, 11m. £	Chantham - Canterbury 1812, 12m. £
1822-23	1,052	352		1,515
1823-24	531	487	512	2,272
1824-25	473		602	2,673
1825-26	753	370	732	2,309
1826-27	734	410	637	2,881
1827-28	1,356	303	588	2,188
1828-29	1,786	402	598	2,568
1829-30	702	285	590	2,148
1830-31	854	227	586	2,657
1831-32	586	233	601	2,227
1832-33	552	268	625	2,398

Year	Dartford - Sevenoaks 1766, 11m. £	Dartford - Strood 1761, 14m. £	Dover - Sandwich 1797, 14m. £	Dover - Barham Downs 1753, 6m. £
1822-23	402	2,474	663	932
1823-24	319	3,319	510	457
1824-25	346	2,421	853	706
1825-26	542	3,119	662	1,218
1826-27	534	3,269	472	825
1827-28	408	3,690	444	1,092
1828-29	505	4,423	478	638
1829-30	402	2,191	521	820
1830-31	521	2,365	509	748
1831-32	427	2,927	569	822
1832-33	325	1,984	547	783

KENT PARLIAMENTARY RETURNS

Year	Dover - Sandgate 1764, 8m. £	Waldershore Rd. 1801, 9m. £	Faversham - Hythe 1762, 35m. £	Folkstone - Barham 1792, 9m. £
1822-23	914	936		214
1823-24	1,049	338	2,017	194
1824-25	793	260	1,453	130
1825-26	593	201	1,127	129
1826-27	457	173	969	162
1827-28	598	154	1,344	144
1828-29	438	212	1,213	155
1829-30	627	243	1,018	120
1830-31	585	86	3,182	128
1831-32	440	167	8,461	94
1832-33	405	184	4,472	130

Year	Goudhurst Rd. 1768, 8m. £	Marden Rd. 1765, 7m. £	Gravesend - Wittham £	Greenwich - Woolwich 1818, 2¾m. £
1822-23	248	293		536
1823-24	250	247		255
1824-25	201	198		93
1825-26	213	343		418
1826-27	152	197		258
1827-28	144	396		233
1828-29	216	420		633
1829-30	115	406		856
1830-31	197	263	226 (N.R.)	771
1831-32	229	343	292	419
1832-33	207	241	231	640

KENT PARLIAMENTARY RETURNS

Year	Herne Bay Rd. 1814, 5m. £	Ightham Rd. 1811, 6m. £	Kippings Cross - Flimswell 1762, 12m. £	Kippings Cross - Wilsly Green 1765, 11m. £
1822-23	150	41	1,367	223
1823-24	167	42	1,059	387
1824-25	225	33	1,274	376
1825-26	211	37	2,444	611
1826-27	184	32	1,904	442
1827-28	236	36	1,188	262
1828-29	201	28	1,307	512
1829-30	207	45	1,223	463
1830-31	188	23	1,366	639
1831-32	195	180	1,324	630
1832-33	199	52	3,891	639

Year	Macknade and Chilham Rd. 1812, 7m. £	Maidstone - Biddenham 1769, 14m. £	Maidstone - Key Street 1769, 9m. £	Cranbrooke Rd. 1760, 17m. £
1822-23		559	435	1,064
1823-24		579	246	1,080
1824-25		502	152	1,224
1825-26		542	759	1,640
1826-27		453	337	1,297
1827-28		490	205	1,274
1828-29		519	242	1,563
1829-30		534	234	2,530
1830-31	121	650	197	1,658
1831-32	168	645	238	2,676
1832-33	114	590	339	3,874

KENT PARLIAMENTARY RETURNS

Year	Malling & Strood 8m. £	New Cross Roads 1765, 36m. £	Penhurst Rd. 1765, 19m. £	Rochester - Maidstone 1711, 11m. £
1822-23		11,687	274	1,277
1823-24		10,447	271	588
1824-25		13,546	364	1,408
1825-26	1,521	15,173	302	1,907
1826-27	1,521	14,007	293	326
1827-28	1,521	15,803	516	532
1828-29	1,521	15,733	384	564
1829-30	251	15,328	185	546
1830-31	341	14,857	348	541
1831-32	326	15,300	298	553
1832-33	246	13,884	252	596

Year	Rolvenden Rd. 1762, 5m. £	Sandwich - Margate 1807, 10m. £	Sevenoaks Rd. 1749, 11m. £	Stockershead - Baghams Cross 1809, 7m. £
1822-23	78	131	994	165
1823-24	231	168	1,672	170
1824-25	364	161	1,156	140
1825-26	109	201	901	131
1826-27	83	221	1,004	104
1827-28	308	501	830	100
1828-29	160	903	965	173
1829-30	237	584	842	75
1830-31	322	413	1,663	257
1831-32	411	460	1,120	172
1832-33	202	362	978	174

KENT PARLIAMENTARY RETURNS

Year	Tenterden Rd. 1767, 13m. £	Tonbridge - Sevenoaks 1709, 19m. £	Tonbridge - Ightham Rd. 1809, 6m. £	Tonbridge - Maidstone 1765, 14m. £
1822-23	501	4,618	266	
1823-24	415	3,739	165	
1824-25	444	4,480	208	
1825-26	447	4,953	218	
1826-27	410	3,740	193	
1827-28	248	3,733	187	1,066
1828-29	400	2,910	126	1,087
1829-30	280	2,840	384	1,380
1830-31	285	4,897	308	1,106
1831-32	356	8,038	306	950
1832-33	247	7,865	256	1,020

Year	Wadhurst - West Farleigh 1765, 12m. £	Westerham & Edenbridge 1770, 27m. £	Canterbury - Whitstable 1736, 6m. £	Woodchurch Rd. 1820, 8m. £
1822-23	308	304	541	207
1823-24	358	643	1,145	124
1824-25	311	571	705	163
1825-26	234	623	568	189
1826-27	272	697	975	134
1827-28	479	462	785	146
1828-29	284	702	774	210
1829-30	345	572	692	268
1830-31	453	741	571	200
1831-32	394	537	409	281
1832-33	401	457	514	294

KENT PARLIAMENTARY RETURNS

Year	Wrotham Heath 1765, 20m. £	Wrotham - Maidstone 1752, 33m. £
1822-23	515	1,880
1823-24	927	2,194
1824-25	655	2,003
1825-26	763	2,294
1826-27	653	2,829
1827-28	838	3,136
1828-29	1,200	2,503
1829-30	737	6,271
1830-31	599	2,592
1831-32	856	2,631
1832-33	650	3,154

LINCOLNSHIRE PARLIAMENTARY RETURNS

Year	Deeping - Morcott 1762, 16m. £	Donington - Haconby 1764, 10m. £	Bourne Rd. 1820, 10m. £	Bourne - Spalding 1790, 12m. £	Foston Bridge Rd. 1804, 15m. £
1822-23	727		294		1,106
1823-24	856	186	239		2,192
1824-25	775	166	373		2,962
1725-26		434	318		3,012
1826-27		408	573	185	2,581
1827-28	932	403		134	2,146
1828-29	734	385	421		2,396
1829-30	576	379	354	47	2,066
1830-31	588	400	474	65	1,487
1831-32	719	405		109	4,121
1832-33	1,109	412	461	129	2,636

LINCOLNSHIRE PARLIAMENTARY RETURNS

Year	Grantham Rd. (South) 1739, 10m. £	Grantham - Nottingham (East) 1759, 20m. £	Lincoln - Peterborough (Middle) 1756, 13m. £	Lincoln - Peterborough (North-East) 1756, 9m. £
1822-23	1,090	142	550	
1823-24		228	678	238
1824-25		60	631	400
1825-26		491	800	681
1826-27		228	749	474
1827-28		146	1,050	614
1828-29		288	1,035	343
1829-30	1,184	228	1,015	424
1830-31	1,094	229	774	678
1831-32		343	1,351	525
1832-33		234	766	461

Year	Alford - Cowbridge 1765, 27m. £	Bawtry Bridge 1765, 26m. £	Dexthorpe 1765, 20m. £	Great Grimsby 1765, 14m. £
1822-23		1,890	530	
1823-24				82
1828-29	699	1,223	315	586

LINCOLNSHIRE PARLIAMENTARY RETURNS

Year	Lincoln - Caistor 1765, 46m. £	Louth Rd. 1770, 34m. £	Scartho Rd. 1803, 13m. £	Wragby Rd. 1772, 35m. £
1822-23	1,333	771	145	531
1828-29	1,459	475	69	1,221

Year	Lincoln - Peterborough (North) 1756, 18m. £	Lincoln - Peterborough (West) 1756, 12m. £	Lincoln - Peterborough (S.E. & S.W.) 1756, 15m. £	Lincoln - Peterborough (North-West) 1756, 16m. £
1822-23		31	928	248
1823-24	437	90	1,526	
1824-25	920	10	2,366	
1825-26	1,033	49	2,408	
1826-27	911	98	1,947	
1827-28	881	308	2,077	
1828-29	1,443	337	2,069	
1829-30	565	262	1,736	
1830-31	1,222	394	1,919	
1831-32	1,044	195	1,468	
1832-33	857	238	1,716	

LINCOLNSHIRE PARLIAMENTARY RETURNS

Year	Melton Road 1780, 7m. £	Sleaford - Tattershall 1793, 14m. £	Spittlegate Road 1759, 15m. £
1822-23	1,102	185	482
1823-24	1,387	90	791
1824-25	884	56	1,249
1825-26	978	380	823
1826-27	757	425	710
1827-28	844	105	687
1828-29	670	134	681
1829-30	753	508	719
1830-31	1,139	653	765
1831-32	943	358	688
1832-33	1,195	453	718

MIDDLESEX PARLIAMENTARY RETURNS

Year	Bedfont Rd. Hounslow - Egham 1809, 8m. £	Pinner - Rickmondsworth 1809, 10m. £	Staines - Hampton 1773, 7m. £	Whetstone Rd. 1712, 7m. £
1822-23	1,364	421	127	2,507
1823-24	1,393	584	135	5,784
1824-25	1,517	376	159	7,558
1825-26	1,349	427	159	6,129
1826-27	1,428	377		5,222
1827-28	1,424	635		4,409
1828-29	1,435	481		6,556
1829-30	1,695	760		5,697
1830-31	2,961	498		4,683
1831-32	2,437	372		3,664
1832-33	1,809	494		3,643

MIDDLESEX PARLIAMENTARY RETURNS

Year	Bethnal Green 1756, 1m. £	Brentford 1767, 12m. £	Camden Town £	Cannon St. 1754, 2m. £	New North Rd. 2m. £
1812-13					220
1813-14					222
1822-23	222	16,356	(N.R.)		3,383
1823-24	293	8,290	1,055 (½yr.)		
1824-25	167	8,102			626
1825-26	295				486
1826-27					454
1827-28				1,196	241
1828-29				597	167
1829-30				795	287
1830-31				631	384
1831-32				505	607
1832-33				551	739

Year	City Rd. 1761, 1m. £	Commercial Rd. 1802, 2m. £	East India Dock Rd. 1802, 1m. £	Hackney Rd. 1738, 6m. £	Harrow Rd. 1801, 9m. £
1821-22	2,363				
1822-23	1,627			2,927	2,000
1823-24	2,351			2,800	2,325
1824-25	2,063			3,198	1,759
1825-26				4,977	
1827-28		6,336	989		
1828-29		3,187	359		
1829-30			377		
1830-31		1,748	461		
1831-32			280		
1832-33		2,481			

Year	Highgate & Hampstead Rd. 1717, 20m. £	Isleworth Rd. 1767, 7m. £	Kensington Rd. 1717, 17m. £	Kilburn Rd. 1712, 10m. £	Old Street 1753, 1m. £
1822-23	12,967	730	8,628	4,093	1,391
1823-24	11,606	899	10,019	4,209	1,519
1824-25	12,967	635	11,684	2,694	1,730
1825-26		655		3,398	

	St. Marylebone Rd. 1734, 4m.	Stamford Hill 1815, 21m.	Uxbridge Rd. 1715, 17m.	St. Marylebone - Finchley 7m.	Middlesex & Essex Rds.
1822-23	2,969		5,147		
1823-24	2,867	8,868	5,631		
1824-25	3,878	10,006	6,021		
1825-26	3,975	8,389	8,476		13,873
1826-27				2,827	11,913
1827-28				4,979	12,986
1828-29				4,394	12,234
1829-30				7,039	10,606
1830-31				5,101	9,678
1831-32				1,632	13,783
1832-33				845	10,957

Year	Foston Bridge 1799, 24m. £	Muskham Bridge - Drayton 1799, 15m. £	Dunham Road 1765, 6m. £	Leadenham - Southwell 1759, 34m. £
1822-23		1,128	87	848
1823-24		1,247	158	
1824-25	1,496	1,704	152	1,121
1825-26	1,375	1,540	143	
1826-27	1,234	1,134	140	
1827-28	1,147	1,053	261	664
1828-29	1,419	977	321	1,771
1829-30	1,419	952	161	
1830-31	1,415	1,014	161	681
1831-32	1,457	1,004	144	
1832-33	1,529	936	151	655

Year	Nottingham - Newhaven Rd. 1759, 30m. £	Derby Rd. 1759, 17m. £	Ilkeston Rd. 1764, 16m. £	Nottingham - Mansfield Rd. 1787, 14m. £
1822-23	383	237	48	
1825-26	442	375		
1826-27		821		
1827-28		628		
1828-29	474	611	372	2,247
1829-30				1,064
1830-31	802	1,156		1,020
1831-32	885	439		998
1832-33	1,025	560		960

Year	Bawtry - Markham 1766, 13m. £	Worksop - Kelham 1770, 21m. £	Gainsborough - Retford 1787, 10m. £	Kirkby - Pinxton 1788, 6m. £
1822-23	821	300	369	78
1823-24	896	234		
1824-25	971	244	354	153
1825-26	1,078	318	361	190
1826-27	954	462	361	
1827-28		848	427	
1828-29	795	456	642	
1829-30	687	355	766	
1830-31		348	441	
1831-32	935	274		
1832-33	799	405	372	

Year	Bingham Road 1773, 13m. £	Loughborough Rd. 1780, 13m. £	Derby & Mansfield Rd. 1764, 24m. £	Rotherham - Mansfield Rd. £
1822-23	232		135	36
1823-24			136	31
1824-25	246	1,266	250	21
1825-26		1,995	501	11
1826-27		2,790	560	32
1827-28	274	3,252	114	16
1828-29	290	2,631	186	25
1829-30		705	738	24
1830-31	244	694	447	301
1831-32		670	617	232
1832-33	300	605		80

NOTTINGHAMSHIRE PARLIAMENTARY RETURNS

Year	Mansfield - Worksop Rd. 10m. £	Worksop - Retford 7m. £	Spittle Hill Bridge - Littleborough Ferry £
1822-23	4,032 (N.R.)	3,531 (N.R.)	
1823-24	1,808	1,535	
1824-25	534	267	10,064 (N.R.)
1825-26	879	336	2,243
1826-27	600	556	370
1827-28	379	313	296
1828-29	427	278	
1829-30	337	492	
1830-31	388	281	176
1831-32	402	261	272
1832-33	402	274	228

NORTHAMPTONSHIRE PARLIAMENTARY RETURNS

Year	Banbury, Daventry & Lutterworth 1765, 52m. £	Buckingham - Towcester 1824, 8m. £	Buckingham - Anglia - Hanwell 1815, 8m. £	Peterborough - Thorney 7m. £
1821-22	816			
1822-23	934		297	
1823-24	994		495	
1824-25			562	
1825-26			531	
1826-27		487	890	
1827-28			502	
1828-29	1,281	536	519	289
1829-30			491	
1830-31		290		

NORTHAMPTONSHIRE PARLIAMENTARY RETURNS

Year	Hardingstone - Old Stratford 1768, 11m. £	Hillmorton - Dunchurch 1739, 20m. £	Kettering - Northampton 1819, 11m. £	Little Bowden, Rockingham 1793, 6m. £
1822-23		487	422	220
1823-24		463	293	225
1824-25	165	724	457	319
1825-26	216	699	97	523
1826-27	67	874	244	509
1827-28	147	571	429	380
1828-29	164	638	563	399
1829-30	136	810		235
1830-31		678	227	329

Year	Higham Ferrers Rd. 1754, 11m. £	Market Harboro' - Brampton 1752, 35m. £	Market Harboro' - Welford 1810, 30m. £
1822-23		3,062	3,357
1823-24		3,192	3,382
1824-25		2,830	4,580
1825-26		2,311	3,719
1826-27		1,827	3,870
1827-28		1,521	3,510
1828-29	582	1,804	4,952
1829-30		1,807	4,625
1830-31		1,840	3,780

NORTHAMPTONSHIRE PARLIAMENTARY RETURNS

	Northampton - Newport Pagnell 1797, 11m.	Market Harboro' - Stoke, Goldington - N. Pagnell 1709, 14m.	Northampton - Cold Bradfield
Year	£	£	£
1823-24		2,036	
1824-25		2,028	
1825-26		2,299	
1826-27		2,802	
1827-28		2,124	4,169 (N.R.)
1828-29	2,573	2,626	587
1829-30		2,149	385
1830-31		2,631	246

	Old Stratford - Dunchurch 1765, 27m.	Oundle Mid Lane 1794, 14m.	Peterboro' - Wellingboro' 1754, 8m.	Stamford - Kettering 1749, 21m.
Year	£	£	£	£
1822-23	5,208		1,462	549
1823-24	7,737		957	330
1824-25	7,268			467
1825-26	5,144	543		376
1826-27	4,903			553
1827-28	5,103	433	1,197	555
1828-29	4,300	317	1,277	562
1830-31	4,987			
1831-32	4,782			

NORTHAMPTONSHIRE PARLIAMENTARY RETURNS

	Towcester - Cotton End 1795, 9m.	Wansford - Peterborough 1754, 7m.
Year	£	£
1822-23	314	
1823-24	396	351
1824-25	98	208
1825-26	422	234
1826-27	511	311
1827-28	451	294
1828-29	465	240
1829-30	553	252
1830-31	481	274

SURREY PARLIAMENTARY RETURNS

	Alford Rd. 1792, 12m.	Bagshot Trust 1728, 8m.	Bermondsey - Deptford Rd. 1749, 9m.	Bramley - Ridgwick 1818, 6m.	Croydon - Reigate 1807, 8m.
Year	£	£	£	£	£
1822-23	374	1,107	2,754	275	431
1823-24	553	835	3,121	203	636
1824-25	534	1,312	3,044	191	781
1825-26	543	5,971	2,832	284	741
1826-27	541	1,985	2,142	217	862
1827-28	516	2,277	3,137		1,187
1828-29	702	1,255	3,431		2,566
1829-30	642	921	2,457		571
1830-31	539	930	2,758		874
1831-32	395	1,172	1,907		849
1832-33	593	1,472	2,383		850

SURREY PARLIAMENTARY RETURNS

Year	Epsom - Ewell Trust 1755, 21m. £	Farnham Trust 1758, 10m. £	Godalming - Painshill 6m. £	Gt.Dover St. Road 1809, ½m. £	Haslemere Rd. 1816, 12m. £
1822-23	2,305	429		387	113
1823-24	1,755	269			114
1824-25	2,367	192			214
1825-26	3,226	222			207
1826-27	2,683	168	1,825 (N.R.)		173
1827-28	2,956	173	793		185
1828-29	2,544	204	278		166
1829-30	2,875	138	160	158	383
1830-31	2,856	232	165	100	219
1831-32	2,779	303	112	100	223
1832-33	2,405	359	156	100	

Year	Horsham Rd. 1755, 25m. £	Kingston - Leatherhead 1811, 8m. £	Limpsfield Rd. 1795, 12m. £	Reigate Trust 1755, 31m. £
1822-23	3,432	473	95	2,573
1823-24	2,532	574	148	2,663
1824-25	3,498	868	187	2,957
1825-26	3,457	1,185	198	3,308
1826-27	2,118	620	200	3,133
1827-28	3,646	826	181	3,558
1828-29	2,532	914	160	2,883
1829-30	2,375	492	172	2,290
1830-31	2,984	680	172	3,505
1831-32	2,438	723	140	2,919
1832-33	2,156	435	133	3,077

SURREY PARLIAMENTARY RETURNS

Year	Sheetbridge Road 1803, 35m.	Stone Street 1751, 3m.	Surrey New Road 1751, 6m.
1822-23	4,864	173	
1823-24	5,844	224	14,181
1824-25	7,307	201	8,784
1825-26	7,519	188	11,300
1826-27	5,910	227	9,757
1827-28	5,827	137	9,245
1828-29	2,169	134	8,373
1829-30	6,872	138	6,263
1830-31	5,307	190	6,759
1831-32	5,517	156	7,298
1832-33	4,563	246	6,785

Year	Surrey & Sussex Rds. 1786, 61m. +£
1822-23	7,895
1823-24	19,087
1824-25	24,985
1825-26	27,588
1826-27	21,113
1827-28	18,904
1828-29	20,112
1829-30	15,771
1830-31	17,397
1831-32	18,650
1832-33	15,912

SOMERSET PARLIAMENTARY RETURNS

Year	Bath T.T. 1707, 49m. £	Bridgewater T.T. 1759, 48m. £	Bruton T.T. 1756, 66m. £	Warminster Rd. 1727, 27m. £
1822-23	7,455	4,536	1,604	3,029
1823-24	12,512	4,884	1,868	2,897
1824-25	12,048	4,637	1,681	2,925
1825-26	9,722	10,019	1,702	2,884
1826-27	9,064	4,840	1,784	3,257
1827-28	9,941	4,970	2,084	4,697
1828-29	15,965	2,540	1,961	4,230
1829-30	14,654	2,375	1,596	2,424
1830-31	17,957	2,278	2,037	2,561
1831-32	14,135	1,905	2,059	2,622

Year	Chard T.T. 1759, 39m. £	Crewkerne Trust 1765, 27m. £	Frome Rd. 1757, 42m. £	Higham & Ashworth Rd. 10m. £
1822-23	300	148 (½ yr.)	2,791	
1823-24	399	528	2,410	
1824-25	489	854	2,487	
1825-26		1,370	2,882	
1826-27	514	1,276	3,975	1,544 (N.R.)
1827-28	1,896	576	3,049	634
1828-29	2,880	1,646	2,385	394
1829-30	1,065	1,105	2,368	78
1830-31	1,128	1,843	3,804	77
1831-32	800	3,084	2,498	106

SOMERSET PARLIAMENTARY RETURNS

Year	Westhanbury Rd. 1793, 12m. £	Wincanton Turnpike 1756, 40m. £	Radstock Turnpike 17m. £	Yeovil Road 1753, 25m. £
1822-23	234	1,021		1,043
1823-24	342	1,952		777
1824-25	219	2,623		1,317
1825-26		1,495		1,565
1826-27	114	1,872		1,334
1827-28	133	1,882		2,919
1828-29	167	1,754		2,754
1829-30	155	1,486	1,929 (N.R.)	1,647
1830-31	131	1,943	1,654	2,301
1831-32	118	1,826	1,727	2,230

Year	Minehead Road 1765, 67m. £	Wedmore Turnpike Road 13m. £	Wiveliscombe Turnpike 1786, 65m. £
1822-23	1,454		325 (1821 ½ yr.)
1823-24	721		248 (1821-23 - 2yrs.)
1824-25	1,323		16,663 (1823-28)
1825-26	711		1,047 (1828-29)
1826-27	1,525		668 (1829-30)
1827-28	1,065		372 (1830-31)
1828-29	1,228	3,544 (N.R.)	86 (1831-32)
1829-30	2,578	522	
1830-31	2,696	151	
1831-32	694	281	

SOMERSET PARLIAMENTARY RETURNS

Year	Ilminster Rd. 1807, 39m. £	Ilchester Turnpike Rd. 1753, 23m. £	Somerton Rd. 1760, 53m. £	Martock Rd. 1761, 16m. £
1822-23	1,401	1,517	1,937	741
1823-24	1,294	1,485	2,006	
1824-25	1,989	1,417	3,706	
1825-26	1,671	1,394	2,751	
1826-27	1,636	1,517	2,147	422
1827-28	2,416	1,644	2,679	546
1828-29	4,678	2,495	4,683	693
1829-30	3,374	1,161	8,404	918
1830-31	1,847	1,112	4,079	644
1831-32	1,909	997	3,512	660

Year	Buckland Turnpike Rd. 1768, 19m. £	Taunton Turnpike 1752, 79m. £	Shepton Mallet Turnpike 1753, 52m. £	Wells Turnpike Rd. 1753, 37m. £
1822-23	1,590	6,830	4,158	2,592
1823-24	1,281	5,290	3,714	3,160
1824-25	1,989	4,445	3,730	2,165
1825-26	1,499	4,400	5,339	2,362
1826-27	1,306	5,356	3,350	2,721
1827-28	1,521	5,890	3,187	2,193
1828-29	1,560	4,800	3,227	2,175
1829-30		4,977	4,727	2,061
1830-31		3,315	3,411	1,635
1831-32		3,980	2,946	1,676

STAFFORDSHIRE PARLIAMENTARY RETURNS

Year	Forsbrook - Cheddleton 1790, 3m. £	Alton Rd. 1799, 15m. £	Birmingham - Wednesbury Rd. 1748, 14m. £	Bilston Rd. 1766, 11m. £	Ashbourne Leek Rd. 1762, 26m. £
1822-23	136	237	4,302	1,292	802
1823-24	72	426	1,137	1,383	2,010
1824-25	82	155	3,169	1,149	1,463
1825-26	74	329	3,198	1,142	1,580
1826-27	73	91	1,867	2,033	1,739
1827-28	63	97	2,717	1,466	1,094
1828-29	46	87	3,437	1,478	6,057
1829-30	51	49	3,273	1,264	1,339
1830-31			3,610	1,893	1,384
1831-32			4,512		957
1832-33			2,367		1,173

Year	Streetway - Wordsley Green 1761. 15m. £	Churchbridge Rd. 1793, 38m. £	Coleshill (2nd Div) Lichfield 1789, 20m. £	Darlaston - Newcastle - Shelton 15m. £
1822-23		495	1,614	2,049
1823-24		538	1,306	2,613
1824-25		378	1,347	3,253
1825-26	688	819	1,500	3,105
1826-27	658	555	3,425	2,317
1827-28	617	552	1,752	
1828-29	746	584	1,782	1,481
1829-30	938		1,939	1,434
1830-31	1,127	1,059	1,261	1,412
1831-32	890	540	2,031	2,763
1832-33	616	408	1,300	1,968

Year	Dudley - Rowley Rd. 1798, 6m. £	Dudley - New Inn Road 1790, 11m. £	Dudley - Brettell Lane 11m. £	Eccleshall - Newport - Watling St. 23m. £
1822-23	160	378	1,330	560
1823-24	214	545	1,945	578
1824-25	242	575	1,798	709
1825-26	309	627	2,618	711
1826-27	259	484	2,497	645
1827-28	413	471	2,622	426
1828-29	327	627	2,001	545
1829-30	407	500	2,108	593
1830-31	278	340	2,011	755
1831-32	228	347	3,163	53
1832-33	164	556	3,286	812

Year	Ellaston - Darley Moor 1769, 11m. £	Gr. Chell - Shelton 1770, 5m. £	Handsworth Rd. 4m. £	Hanley - Bucknall 1771, 10m. £	Ipstones Rd. 1769, 16m. £
1822-23	74	45	94	163	391
1823-24	61	71	226	273	182
1824-25	70	158	190	231	263
1825-26	82			220	436
1826-27		83	197	438	341
1827-28	40	79	149	445	255
1828-29	55	192	138	2,188	269
1829-30	52	91	300	719	227
1830-31	62	99	392	386	
1831-32	53	104	392	312	
1832-33	185		234	390	

Year	Newport - Stannall 1793, 24m. £	Burslem 1763, 9m. £	Newcastle - Blythe 1762, 11m. £	Newcastle - Drayton 1761, 13m. £	Newcastle - Nantwich 1766, 23m. £
1822-23	45	797	1,127	1,583	1,670
1823-24	410		827	685	1,032
1824-25	427	1,264	264	477	1,116
1825-26	816	769	918	318	1,587
1826-27			912	567	1,235
1827-28	707	672	1,012	558	1,615
1818-29	683	1,353	598	447	1,737
1829-30		838	1,438	286	1,212
1830-31	773	1,115	1,828		
1831-32	685	1,264	1,775		912
1832-33	777	535	1,567	181	

Year	Leek - Newcastle 1765, 15m. £	Oakamoor Rd. 1762, 17m. £	Sandon Rd. 1762, 46m. £	Stone - Uttoxeter 1771, 13m. £	Stone - Streatway 1761, 16m. £
1822-23	880	428	3,392	64	186
1823-24		459	4,792	356	
1824-25	1,047	303	2,295	65	
1825-26		544	1,010	36	2,776
1826-27		539	1,034	57	
1827-28		621	1,029	93	1,484
1828-29	1,182	466	2,772	67	1,291
1829-30	1,095	642	1,160	116	877
1830-31	991		1,333	74	984
1831-32			2,711	42	1,333
1832-33	1,051		1,495	22	

STAFFORDSHIRE PARLIAMENTARY RETURNS

Year	Stone Lane End - Trentham 1792, 16m. £	Stafford,- Sandon 1763, 27m. £	Stourbridge - Bridgnorth 1806, 13m. £	Tunstall - Bosely 1770, 11m. £
1822-23	298		308	90
1823-24	353		363	117
1824-25	566		340	104
1825-26	466		313	1,088
1826-27	535		367	123
1827-28	462		300	127
1828-29	475	1,671	243	163
1829-30	643	952	260	
1830-31	527	1,011	226	195
1831-32	701	525	339	170
1832-33	546	379	221	199

Year	Uttoxeter - Blyth Marsh 1792, 10m. £	Uttoxeter - Forest Rd. 1809, 10m. £	Uttoxeter - High Bridges 1766, 14m. £	Walsall Rd. 1st. Dist. 1766, 11m. £	Walsall Rd. 1788, 8m. £
1822-23	1,169	120	123	334	308
1823-24	1,529	98	111	405	248
1824-25			590	442	506
1825-26			255	446	321
1826-27				630	233
1827-28			477	563	212
1828-29			565	371	566
1829-30			224	680	
1830-31	1,289		297	924	
1831-32			892	876	
1832-33				472	

STAFFORDSHIRE PARLIAMENTARY RETURNS

Year	Walsall Rd. 2nd Dist. 1766, 11m. £	Bickford - Harbour Rd. £	Wetley Rocks Rd. 1762, 6m. £	Wolverhampton Rd. 1772, 26m. £
1822-23	367		466	1,032
1823-24	621		1,603	3,437
1824-25	520		429	
1825-26	508		644	
1826-27	409		460	
1827-28	500		203	
1828-29	387		330	3,080
1829-30	499		252	2,009
1830-31	911			2,209
1831-32	780			1,653
1832-33	466	132		2,246

Year	Wombourn - Bilston 1766, 11m. £	Tewnals Rd. (2nd. Dist.) £	Cheadle Rd. £	Lichfield Rds. 1729, 42m. £
1822-23	207	276		2,510
1823-24	281			3,556
1824-25				3,595
1825-26	584			3,320
1826-27				3,570
1827-28	578			3,343
1828-29	360			3,026
1829-30	374		146	2,651
1830-31	440		167	2,521
1831-32	354			2,873
1832-33	344			

STAFFORDSHIRE PARLIAMENTARY RETURNS

Year	Tamworth Rds. 1770, 40m. £	Ashbourne - Yoxall Bridge 1762, 19m. £	Spath - Hanging Bridge 1766, 9m. £	Rugeley - Armitage 9m. £
1823-24	1,299 (¾)	218	122	2,095 (N.R.)
1824-25			69	453
1825-26		345	71	276
1826-27			109	290
1827-28			60	654
1828-29	1,607	332	715	325
1829-30	1,141	344	576	
1830-31	1,637	412	622	196
1831-32			212	328
1832-33	1,328	158	148	302

Year	Dudley - Wolverhampton 1782, 14m. £	Whitechurch - Nantwich 1767, 17m. £	Newcastle - Eccleshall 11m. £	Walton - Eccleshall £
1822-23		1,087	3,513	
1824-25	1,676		554	
1825-26	1,437		356	
1826-27	1,634			
1827-28	1,557		511	
1828-29	2,866	1,118	225	
1829-30	1,291			225
1830-31	1,263		376	225
1832-33	1,461			

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Balby - Worksop 1765, 15m. £	Barnby Moor - Rotherham 12m. £	Barnsdale - Leeds 1819, 25m. £	Barnsley & Cudworth Rd. 3m. £	Bawtry - Selby Rd. 1793, 28m. £
1822-23	487		1,901		119
1823-24	957		1,626		96
1824-25	609		1,435		124
1825-26	580		1,469		427
1826-27	802	4,911 (N.R.)	1,934		267
1827-28	970	1,964	1,704		310
1828-29	863	378	1,305	51	573
1829-30	494	364	1,620	36	486
1830-31	476	567	1,950	93	264
1831-32	600	555	1,783	64	227

Year	Bawtry - Tinsley Rd. 1760,-17m. £	Birstal - Nunbrook & Huddersfield 1765, 3m. £	Bradford - Keighley 1755, 14m. £	Bradford - Wakefield 1819, 13m. £	Bradford - Thornton 1793, 6m. £
1822-23	750	1,197	3,919	1,139	
1823-24	706	2,868	2,811	881	
1824-25	1,261	3,763	1,419	1,728	
1825-26	940	3,872	1,314	1,493	
1826-27	900	2,619	1,923	1,456	
1827-28	750	2,030	2,434	1,534	
1828-29	804	3,209	2,145	1,236	8,503
1829-30	689	2,653	944	1,442	699
1830-31	614	2,075	2,263	1,119	570
1831-32	600	2,097	1,937	1,387	435

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Brighouse - Denham Gate 8m. £	Burnley & Colne Rd. 1803, 17m. £	Collingham - York 1771, 14m. £	Dewsbury - Ealand 1759, 10m. £	Dewsbury - Leeds 1816, 8m. £
1822-23		135		712	1,103
1823-24		412		547	610
1824-25		135		1,964	439
1825-26	5,187 (N.R.)	184		1,423	188
1826-27	582		886	1,354	259
1827-28	291		1,087	704	141
1828-29	526		1,759	801	117
1829-30	432		285	751	1,189
1830-31	422		743	862	419
1831-32	864		396	810	690

Year	Doncaster - Bawtry 1776, 6m. £	Doncaster - Saltersbrook 1741, 29m. £	Doncaster - Tadcaster 1741, 26m. £	Doncaster - Thorne 9m. £	Dudley Hill-Killinghall 1816, 24m. £
1822-23	594		3,621		588
1823-24	707		3,757		508
1824-25	661	415	3,741		158
1825-26	826	1,133	4,377	5,022 (N.R.)	1,219
1826-27	803	1,173	1,288	616	603
1827-28	850		3,299	615	165
1828-29	1,019	480	3,786	1,103	271
1829-30	903		2,890	112	153
1830-31	1,216		2,588	127	178
1831-32	1,684		3,161	312	434

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Ealand & Brighouse 1815, 5m. £	Ealand - Leeds 1741, 15m. £	Ferrybridge - Boroughbridge 1741, 29m. £	Godley Lane End Rd. 1817, 2m. £	Greenfield in Saddleworth - Shepley Lane 15m. £
1822-23	152	3,283	2,858		
1823-24	207	3,988	2,802		3,490 (N.R.)
1824-25	243	3,380	2,443		1,734
1825-26	106	3,302	2,479	565	299
1826-27	165	1,299	2,733	1,020	594
1827-28	399	1,556	2,196	4,638	2,211
1828-29	114	1,313	1,883	213	1,696
1829-30	120	1,538	1,899	697	900
1830-31	74	714	2,341	307	441
1831-32	131	1,358	2,766	37	1,234

Year	Harrogate - Ripon 1752, 20m. £	Haworth Turnpike 1755, 19m. £	Eccleshill - Bradford 2m. £	Halifax - Huddersfield 1777, 8m. £	Halifax - Sheffield 1777, 12m. £
1822-23	1,061	385		1,014	758
1823-24	1,769			1,300	956
1824-25	1,274			4,807	934
1825-26	899	140		5,682	1,120
1826-27	1,314	142		4,056	844
1827-28	1,355	74		1,349	1,000
1828-29	1,369	34	4,533 (N.R.)	854	772
1829-30	1,517	126	79	466	1,109
1830-31	1,225	173	11	185	1,238
1831-32	1,313	171	8	326	10,406

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Harrogate - Boroughbridge 1752, 10m. £	Holmfirth - Swinden Walls (Wadsley & Langsett) 6m. £	Huddersfield - Penistone 1777, 10m. £	Huddersfield - New Hey 1806, 19m. £
1822-23			73	356
1823-24	483	2,363	76	186
1824-25	605	631	441	907
1825-26	756	323	205	203
1826-27	541		935	160
1827-28	520		128	118
1828-29	448		236	86
1829-30	552		294	79
1830-31	550		244	135
1831-32	630		125	190

Year	Huddersfield - Woodhead 1768, 12m. £	Hunslet - Leeds £	Keighley - Halifax 12m. £	Keighley - Kendal 37m. £	Kirkstall - Shipley & Otley 13m. £
1822-23	1,539		1,060	1,996	
1823-24	1,551		1,026	2,243	
1824-25	1,243		1,196	2,102	
1825-26	1,245		1,500	4,371	
1826-27	571		870	2,153	
1827-28	1,677		856	1,752	
1828-29	1,226		759	2,708	
1829-30	1,345	2,148 (N.R.)	1,112	2,367	789
1830-31	1,951	1,826	679	1,583	767
1831-32	2,473	453	600	1,719	747

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Knaresbrough - Green H ammerton 1752, 7m. £	Knaresbrough - Pattley Bridge 1759, 10m. £	Leeds - Hebdon Bridge 1816, 8m. £	Leeds - Callingham 6m. £	Leeds - Halifax 1741,31m. £
1822-23		255			4,023
1823-24	37	198			6,643
1824-25	42	198			5,826
1825-26	36	211			7,158
1826-27	39	209			5,859
1827-28	134	180	52	778	11,119
1828-29	179	213	24	1,042	11,055
1829-30	127	231	6	2,191	8,344
1830-31	284	255	188	2,199	6,535
1831-32	130	220	14	791	7,310

Year	Leeds - Harrogate 1752, 15m. £	Leeds - Huddersfield Rd. £	Leeds - Meanwood £	Leeds - Otley 1755 10m. £	Leeds - Roundhay 1808, 2m. £	Leeds - Selby 1755, 20m. £
1822-23	3,398			1,547	22	2,699
1823-24	3,237			1,439	23	2,819
1824-25	2,662			1,224		2,912
1825-26	3,531			1,259	40	3,253
1826-27	3,729			1,445	91	2,921
1827-28	3,070			1,440	971	2,749
1828-29	2,114	51		1,320	613	2,190
1829-30	1,825			1,076	699	2,563
1830-31	3,185		164	1,644	392	2,576
1831-32	3,186		302	1,084	327	2,537

1828-29, Leeds to Halifax (Shipley Branch) £20,560.

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Leeds - Wakefield 1758, 8m. £	Leeds - Wortley - Huddersfield 1823 £	Lockwood - Meltham Rd. 1818, 2m. £	Millbridge - Cleckheaton 1806, 1m. £	Mytholmroyd Bridge & Blackstone Edge 1815, 6m. £
1822-23	2,711	104	506	20	112
1823-24	3,178	51	624	26	
1824-25	3,645	55	558	36	485
1825-26	3,715	360	497		2,320
1826-27	4,023	139	206		293
1827-28	3,516	579	469		74
1828-29	3,152	868	372		77
1829-30	4,941	1,443	307		82
1830-31	4,971	1,586	205		245
1831-32	5,314	1,136	300		126

Year	Northgate Lane - Swinden (Wadsley & Langsett) (2nd) 11m. £	Oldham & Rippenden Turnpike 1795, 17m. £	Pateley Bridge to Grassington 1762 £	Pontefract to Aberford £	Red House - Crofton 11m. £
1822-23		384	34		947
1823-24	2,556	185	20		706
1824-25		356	22		159
1825-26		823	18		1,429
1826-27		503			324
1827-28		488			863
1828-29		1,225		2,840 (N.R.)	414
1829-30		742			361
1830-31		163			1,211
1831-32		171			923

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Ripon to Pateley Bridge 1756, 11m. £	Rotherham to Four Lane Ends and Wortley 1788, 9m. £	Rotherham - Pleasley 1764, 19m. £	Rotherham - Swinton 1809, 4m. £
1822-23	516		115	199
1823-24	219	411	151	152
1824-25	256	437	250	268
1825-26	239	337	719	468
1826-27	489	297	249	613
1827-28	416	302	257	402
1828-29	355	276	318	538
1829-30	386	723	254	325
1830-31	351	233	297	255
1831-32	344	592	285	291

Year	Rotherham - Wentworth 1764, 6m. £	Salterhebble - Sowerby Bridge (Royal George) 7m. £	Sheffield to Glossop 1818, 24m. £	Shipley - Bramley 7m. £	Skipton - Clitheroe 1755, 18m. £
1822-23	147				555
1823-24	163				603
1824-25	681	6,035 (N.R.)	2,905		365
1825-26	174	2,412	2,905		2,846
1826-27	160	4,705	1,135	6,352(N.R.)	2,277
1827-28	104	943		828	1,042
1828-29	61			834	1,167
1829-30	69			279	572
1830-31	63	86		52	364
1831-32	45	26			306

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Skipton - Knaresborough 1777, 25m. £	Skipton - Otley 1755,15m. £	Standedge to Oldham 1792, 10m. £	Swinton, Rawmarsh & Hooton Roberts 1818, 7m. £	Tadcaster & Halton Dial 1751, 12m. £
1822-23	102	589	823	483	2,705
1823-24	1,796	135	663	458	1,822
1824-25	454	955	660	692	3,353
1825-26	1,473	791	416	814	3,090
1826-27	661	298	772	261	3,769
1827-28	581	104	770	181	1,805
1828-29	261	144	423	238	1,838
1829-30	109	106	2,856	57	1,820
1830-31	100	272	1,158	55	1,880
1831-32	112	71	1,187	400	1,924

Year	Tadcaster to Otley 1753, 17m. £	Tinsley - Doncaster 1764,14m. £	Todmorden Turnpike £	Tong Lane £	Wadsley & Langsett 1805,8m. £	Wakefield - Aberford 1789,12m. £
1822-23	495	960			1,950	34
1823-24	415	1,257			325	106
1824-25	384	1,527			182	106
1825-26	490	2,352			813	90
1826-27	515	2,124			293	67
1827-28	480	1,240			1,881	189
1828-29	471	1,530			745	329
1829-30	376	1,384			382	99
1830-31	510	2,070	3,573 (N.R.)		312	219
1831-32	380	1,995	2,727	296	404	168

WEST YORKSHIRE PARLIAMENTARY RETURNS

Year	Wakefield - Austerlands 1759, 29m. £	Wakefield - Denby Dale £	Wakefield - Halifax, 1st, 2nd. & 3rd. Districts 1741, 20m. £	Wakefield - Sheffield 1758, 22m. £	Wakefield - Weeland 1741, 12m. £
1822-23	3,671		1,237	3,468	120
1823-24	8,517		2,016	4,745	969
1824-25	9,668		1,480	3,943	1,342
1825-26	8,190		2,332	4,707	1,596
1826-27	4,661		734	5,645	1,295
1827-28	4,460		3,605	2,202	1,241
1828-29	5,232		4,043	2,406	927
1829-30	5,738		7,303	3,000	1,055
1830-31	6,284	845 (N.R.)	4,711	2,388	1,240
1831-32	6,056	436	2,372	2,574	1,204

Year	Wetherby - Knaresborough 1783, 12m. £	Wibsey Low Moof to Huddersfield 7m. £	Worksop - Attercliffe 1764, 15m. £	York - Boroughbridge 1750, 17m. £
1822-23	959			454
1823-24	280		340	527
1824-25			700	554
1825-26	206	3,413 (N.R.)	1,467	614
1826-27	83	2,531	1,059	606
1827-28	25	698	593	447
1828-29	156	320	664	444
1829-30	214	418	498	475
1830-31		663	723	476
1831-32		875	843	913

APPENDIX B

QUASI-NET EXPENDITURE FIGURES FOR 55 TURNPIKE TRUSTS

In the following Appendix the record office concerned is given by the name of each turnpike. More detailed reference numbers can generally be found in the Primary Sources list below, although some record offices have not yet numbered and catalogued their material. (See above, chapter 4)

Bedfordshire BIGGLESWADE ROAD, ALCONBURY HILL 20 (1725)

Beds. R.O.

Year	£	Year	£	Year	£
1780-81	1,418	1794-95	1,521	1808-09	1,611
1781-82	1,303	1795-96	1,545	1809-10	1,774
1782-83	1,146	1706-97	2,032	1810-11	1,715
1783-84	1,398	1797-98	1,544	1811-12	1,947
1784-85	1,226	1798-99	1,542	1812-13	1,904
1785-86	1,282	1799-1800	1,542	1813-14	864
1786-87	1,725	1800-01	1,802	1814-15	2,460
1787-88	1,510	1801-02	1,714	1815-16	2,376
1788-89	1,255	1802-03	1,102	1816-17	3,123
1789-90	1,403	1803-04	1,550	1817-18	3,050
1790-91	1,176	1804-05	1,545	1818-19	3,469
1791-92	1,600	1805-06	2,031	1819-20	2,918
1793-94	1,136	1806-07	2,623	1820-21	3,595
		1807-08	657	1821-22	2,516

Berkshire WINDSOR FOREST ROAD 17 B.R.O.

Year	£	Year	£	Year	£
1759-60	798	1762-63	138	1765-66	86
1760-61	1,218	1763-64	242	1766-67	89
1761-62	378	1764-65	388	1767-68	127

Bedfordshire HITCHIN - BEDFORD ROAD 25 (1757) Beds. R.O.

1796-97	351	1802-03	1,361	1807-08	876
1797-98	461	1803-04	1,396	1808-09	1,222
1798-99	558	1804-05	1,521	1809-10	865
1799-1800	1,182	1805-06	1,304	1810-11	926
1800-01	1,182	1806-07	1,194	1811-12	918

Berkshire — BERKSHIRE TURNPIKES — 26 (1752) B.R.O.

Year	£	£	£
			Wallingford Rd. (Nuffield, etc.)
1775-76	591		
1776-77	404		
1777-78	188		
1778-79	20		
1779-80	52		
1780-81	63		
1781-82	20		
1782-83	20		
1783-84	11		
1784-85	11		
1785-86	10		
1786-87	11		
1787-88	11		
1788-89	15		
1789-90	15		
1790-91	15		
1792-93	235 (N.A.)		
1793-94	10		
1794-95	17		
1795-96	10		
1796-97	12		
1797-98	12		
1798-99	14		
1799-1800	13		
1800-01	13		
1801-02	14		447
1802-03	14		389
1803-04	10		416
1804-05	16		385
1805-06	10		333
1806-07	12		418
1807-08	10		368

Year	Hungerford - Sousley Water Road £	Wallingford Road (Nuffield etc.) £	Windsor Forest Road £
1808-09	10	430	
1809-10	10	534	
1810-11	10	464	
1811-12	10	821	
1812-13		578	
1813-14		701	
1814-15		620	
1815-16		429	
1816-17		344	
1817-18		503	
1818-19		766	
1819-20		811	
1820-21		808	
1821-22		633	

Buckingham WENDOVER - BUCKINGHAM 21 (1795) Bucks. R.O.

Year	£	Year	£
1799-1800	824	1809-10	1,704
1800-01	1,138	1810-11	2,192
1801-02	830	1811-12	1,993
1802-03	875	1812-13	2,485
1803-04	806	1813-14	1,321
1804-05	483	1814-15	1,081
1805-06	1,226	1815-16	1,289
1806-07	933	1816-17	1,411
1807-08	1,376	1817-18	1,536
1808-09	1,613	1818-19	630

Cambridgeshire KNESSWORTH AND CAXTON TRUST 15 (1769) Cam.R.O.

Year	£	Year	£
1780-81	134	1798-99	918
1781-82	153	1799-1800	622
1782-83	278	1800-01	504
1783-84	295	1801-02	1,574
1784-85	326	1802-03	1,155
1785-86	389	1803-04	580
1786-87	209	1805-05	435
1787-88	257	1805-06	571
1788-89	186	1806-07	571
1789-90	372	1807-08	599
1790-91	297	1808-09	1,086
1791-92	303	1809-10	541
1792-93	348	1810-11	1,153
1793-94	311	1811-12	722
1794-95	737	1812-13	956
1795-96	437	1813-14	663
1796-97	400	1814-15	1,441
1797-98	465		

Cornwall — HELSTON TURNPIKE TRUST — 22 (1760) (Central and Divisional Books)

Year	£	Year	£	Year	£
1764-65	93	1780-81	358	1795-96	172
1765-66	191	1781-82	39	1796-97	128
1766-67	166	1782-83	110	1797-98	169
1768-69	242	1783-84	92	1798-99	171
1769-70	226	1784-85	91	1799-1800	194
1770-71	437	1785-86	57	1800-01	374
1771-72	61	1786-87	180	1801-02	201
1772-73	57	1787-88	211	1802-03	132
1773-74	149	1788-89	52	1803-04	163
1774-75	120	1789-90	72	1804-05	342
1775-76	57	1790-91	69	1805-06	212
1776-77	36	1791-92	108	1806-07	333
1777-78	112	1792-93	105	1807-08	333
1778-79	88	1793-94	92	1808-09	312
1779-80	38	1794-95	157		

Derbyshire — DUFFIELD TO WIRKSWORTH TURNPIKE — 9 (1756) Derbys. R.O.

1756-57	512	1762-63	106	1768-69	110
1757-58	522	1763-64	129	1769-70	117
1758-59	386	1764-65	101	1770-71	131
1759-60	178	1765-66	176	1771-72	115
1760-61	108	1766-67	89	1772-73	56
1761-62	189	1767-68	174	1773-74	67

Devonshire — EXETER TURNPIKE (1753) 5

Year	£	Year	£	Year	£
1815-16	5,599	1817-18	3,456	1819-20	2,598
1816-17	7,696	1818-19	4,688	1820-21	1,715

Dorset — DORSET - BRIDPORT TURNPIKE 24 Do.R.O.

1754-55	136	1774-75	91	1793-94	139
1755-56	425	1775-76	115	1794-95	147
1756-57	98	1776-77	227	1795-96	314
1757-58	92	1777-78	298	1796-97	85
1758-59	116	1778-79	145	1797-98	128
1759-60	20	1779-80	103	1798-99	296
1760-61	16	1780-81	92	1799-1800	259
1761-62	87	1781-82	41	1800-01	242
1762-63	46	1782-83	54	1801-02	185
1763-64	82	1783-84	190	1802-03	167
1764-65	37	1784-85	60	1803-04	110
1765-66	93	1785-86	70	1804-05	151
1767-68	174	1786-87	66	1805-06	138
1768-69	78	1787-88	31	1806-07	126
1769-70	31	1788-89	20	1807-08	200
1770-71	59	1789-90	173	1808-09	337
1771-72	21	1790-91	138	1809-10	202
1772-73	78	1791-92	117	1810-11	86
1773-74	143	1792-93	201	1811-12	184

Essex ESSEX AND ONGAR TURNPIKE First District 20 miles (1724) E.R.O.

Year	£	Year	£	Year	£
1783-84	928	1790-91	620	1796-97	689
1784-85	796	1791-92	636	1797-98	715
1785-86	565	1792-93	778	1798-99	851
1786-87	777	1793-94	1,092	1799-1800	1,285
1787-88	599	1794-95	874	1800-01	1,926
1788-89	589	1795-96	783	1801-02	2,185
1789-90	832				

Essex ESSEX AND HERTS. TURNPIKE (HOCKERILL) 27 (1744) E.R.O.

1792-93	1,378	1802-03	1,036	1812-13	3,287
1793-94	1,452	1803-04	985	1813-14	3,241
1794-95	1,148	1804-05	1,220	1814-15	3,310
1795-96	1,373	1805-06	1,272	1815-16	3,445
1796-97	1,005	1806-07	1,315	1816-17	2,578
1797-98	1,154	1807-08	1,283	1817-18	2,428
1798-99	1,197	1808-09	1,993	1818-19	2,556
1799-1800	1,462	1809-10	1,919	1819-20	2,601
1800-01	1,178	1810-11	2,838	1820-21	2,494
1801-02	1,104	1811-12	2,783		

Hampshire WINCHESTER - SOUTHAMPTON TURNPIKE 23 (1762) Hants. R.O.

Year	£	Year	£	Year	£
1802-03	811	1808-09	566	1814-15	652
1803-04	1,024	1809-10	568	1815-16	552
1804-05	649	1810-11	871	1816-17	696
1805-06	552	1811-12	509	1817-18	629
1806-07	555	1812-13	865	1818-19	604
1807-08	745	1813-14	421	1819-20	792

Hampshire HAMPSHIRE TURNPIKE (Stockbridge & Winchester) 8 (1758) Hants. R.O.

1773-74	385	1789-90	285	1805-06	486
1774-75	314	1790-91	303	1806-07	446
1775-76	300	1791-92	312	1807-08	440
1776-77	307	1792-93	376	1808-09	477
1777-78	297	1793-94	368	1809-10	457
1778-79	306	1794-95	399	1810-11	444
1779-80	282	1795-96	487	1811-12	418
1780-81	722	1796-97	393	1812-13	413
1781-82	276	1797-98	449	1813-14	460
1782-83	384	1798-99	679	1814-15	541
1783-84	344	1799-1800	658	1815-16	383
1784-85	301	1800-01	649	1816-17	538
1785-86	499	1801-02	389	1817-18	1,413
1786-87	538	1802-03	462	1818-19	501
1787-88	304	1803-04	359	1819-20	477
1788-89	308	1804-05	393		

Hertfordshire SPARROWS HERNE T.T. 25 (1762) Herts R.O.

Year	£	Year	£	Year	£
1764-65	1,277	1779-80	1,225	1799-1800	761
1765-66	1,731	1780-85	m	1800-01	1,116
1766-67	833	1786-87	786	1801-02	969
1767-68	935	1787-88	859	1802-03	943
1768-69	373	1788-89	775	1803-04	1,175
1769-70	1,095	1789-90	1,136	1804-05	1,143
1770-71	1,087	1790-91	992	1805-06	1,154
1771-72	1,019	1791-92	1,164	1807-08	1,367
1772-73	839	1792-93	1,190	1808-09	1,120
1773-74	925	1793-94	1,470	1809-10	1,141
1774-75	1,115	1794-95	1,531	1810-11	1,365
1775-76	911	1795-96	1,166	1811-12	1,202
1776-77	924	1796-97	1,222	1812-13	1,167
1777-78	960	1797-98	1,143	1813-14	1,117
1778-79	1,095	1798-99	1,156	1814-15	1,395

Hertfordshire ST. ALBANS T.T. 11 (1715) Herts.R.O.

Year	£	Year	£	Year	£
1759-60	447	1776-85	m	1802-03	1,579
1760-61	723	1785-86	1,471	1803-04	1,525
1761-62	896	1786-87	1,536	1804-05	1,638
1762-63	989	1787-88	1,123	1805-06	1,766
1763-64	990	1788-89	734	1806-07	1,679
1764-65	774	1789-90	1,414	1707-08	3,480
1765-66	1,539	1790-91	1,217	1808-09	4,174
1766-67	1,119	1791-92	2,111	1809-10	2,234
1767-68	1,218	1792-93	1,443	1810-11	2,429
1768-69	1,324	1793-94	1,348	1811-12	2,464
1769-70	1,579	1794-95	2,667	1812-13	2,278
1770-71	1,479	1795-96	2,800	1813-14	2,581
1771-72	1,197	1796-97	1,934	1814-15	2,762
1772-73	1,347	1797-98	1,869	1815-16	2,624
BRIDGE					
1773-74	2,253	1798-99	1,247	1816-17	2,290
1774-75	1,209	1799-1800	1,950	1817-18	2,316
1775-76	1,311	1800-01	2,068	1818-19	5,068
		1801-02	1,768	1819-20	5,236

Hertfordshire STEVENAGE - BIGGLESWADE T.T. 10 (1720) Herts.R.O.

Year	£	Year	£	Year	£
1802-03	1,239	1807-08	1,610	1812-13	3,251
1803-04	1,381	1808-09	1,889	1813-14	3,201
1804-05	1,587	1809-10	1,821	1814-15	2,796
1805-06	1,799	1810-11	2,006	1815-16	3,476
1806-07	1,522	1811-13	3,653	1816-17	2,857

Hertfordshire WELWYN TRUST 22 (1730) Herts.R.O.

1763-64	3,081	1780-81	590	1797-98	983
1764-65	1,314	1781-82	731	1798-99	889
1765-66	1,262	1782-83	748	1799-1800	987
1766-67	811	1783-84	849	1800-01	1,011
1767-68	701	1784-85	649	1801-02	931
1768-69	879	1785-86	712	1802-03	951
1769-70	714	1786-87	731	1803-04	1,116
1770-71	699	1787-88	757	1804-05	1,603
1771-72	609	1788-89	820	1805-06	1,057
1772-73	504	1789-90	805	1806-07	1,014
1773-74	566	1790-91	983	1807-08	1,203
1774-75	515	1791-92	823	1808-09	1,360
1775-76	541	1792-93	891	1809-10	1,642
1776-77	651	1793-94	786	1810-1818	m
1777-78	624	1794-95	863	1818-19	1,833
1778-79	729	1795-96	817	1819-20	1,491
1779-80	646	1796-97	694	1820-21	1,823

Kent KIPPING CROSS - FLIMWELL 12 (1762) K.R.O.

Year	£	Year	£	Year	£
1795-96	486	1804-05	537	1813-14	1,235
1796-97	385	1805-06	569	1814-15	3,378
1797-98	381	1806-07	567	1815-16	2,050
1798-99	315	1807-08	610	1816-17	1,835
1799-1800	540	1808-09	835	1817-18	1,222
1800-01	579	1809-10	916	1818-19	1,222
1801-02	547	1810-11	1,338	1819-20	923
1802-03	444	1811-12	1,547	1820-21	1,416
1803-04	440	1812-13	1,999		

Kent WADHURST AND FAIRLEIGH ROAD 12 Kent R.O.

1765-66	1,297	1773-74	82	1781-82	71
1766-67	1,375	1774-75	135	1782-83	219
1767-68	527	1775-76	294	1783-84	26
1768-69	611	1776-77	206	1784-85	126
1769-70	535	1777-78	179	1785-86	165
1770-71	237	1778-79	187	1786-87	237
1771-72	47	1779-80	218	1787-88	228
1772-73	42	1780-81	153	1788-89	286

Kent NEW CROSS TRUST 36 K.R.O.

Year	£	Year	£	Year	£	
1765-66	3,181	1784-85	2,219	1803-04	7,250	
1766-67	2,454	1785-86	2,170	1804-05	7,054	
1767-68	1,729	1786-87	1,917	1805-06	6,843	
1768-69	1,637	1787-88	1,574	1806-07	7,602	
1769-70	1,554	1788-89	2,051	1807-08	6,553	
1770-71	1,884	1789-90	2,149	1808-09	7,628	
1771-72	1,826	1790-91	2,375	1809-10	9,549	(N.A.)
1772-73	1,842	1791-92	2,167	1810-11	10,326	
1773-74	2,393	1792-93	1,961	1811-12	10,225	
1774-75	1,554	1793-94	2,055	1812-13	9,754	
1775-76	2,825	1794-95	2,542	1813-14	8,868	
1776-77	2,160	1795-96	2,806	1814-15	11,074	
1777-78	2,068	1796-97	3,805	1815-16	12,232	
1778-79	2,081	1797-98	3,899	1816-17	13,345	
1779-80	2,489	1798-99	3,264	1817-18	11,086	
1780-81	1,838	1799-1800	3,319	1818-19	10,347	
1781-82	2,701	1800-01	3,179	1819-20	11,988	
1782-83	1,954	1801-02	2,852	1820-21	11,925	
1783-84	1,941	1802-03	5,128	1821-22	11,434	

Leicestershire HARBOROUGH - LOUGHBOROUGH 26 (1726) L.R.O.

Year	£	Year	£	Year	£
1784-85	2,466	1791-92	2,717	1797-98	2,278
1785-86	1,500	1792-93	1,749	1798-99	3,612
1786-87	1,660	1793-94	2,864	1799-1800	2,198
1787-88	1,948	1794-95	2,809	1800-01	2,704
1788-89	2,606	1795-96	3,010	1801-02	2,004
1789-90	2,635	1796-97	2,526	1802-03	2,554
1790-91	2,930				

Leicestershire HINCKLEY - LUTTERWORTH T.T. 10 L.R.O.

1762-63	473	1780-81	90	1797-98	152
1763-64	151	1781-82	68	1798-99	144
1764-65	77	1782-83	68	1799-1800	148
1765-66	40	1783-84	86	1800-01	113
1766-67	145	1784-85	139	1801-02	157
1767-68	215	1785-86	38	1802-03	103
1768-69	20	1786-87	60	1803-04	146
1769-70	85	1787-88	120	1804-05	144
1770-71	219	1788-89	161	1805-06	230
1771-72	16	1789-90	180	1806-07	225
1772-73	15	1790-91	275	1807-08	215
1773-74	15	1791-92	140	1808-09	250
1774-75	15	1792-93	95	1809-10	255
1775-76	15	1793-94	187	1810-11	350
1776-77	15	1794-95	188	1811-12	265
1778-79	59	1795-96	194	1812-13	270
1779-80	71	1796-97	125		

Leicestershire LEICESTER - WANLIP T.T. 2 L.R.O.

Year	£	Year	£	Year	£
1772-73	831	1788-89	113	1804-05	8
1773-74	258	1789-90	55	1805-06	23
1774-75	91	1790-91	54	1806-07	5
1775-76	125	1791-92	34	1807-08	15
1776-77	98	1792-93	74	1808-09	23
1777-78	44	1793-94	77	1809-10	19
1778-79	88	1794-95	66	1810-11	21
1779-80	21	1795-96	57	1811-12	25
1780-81	61	1796-97	127	1812-13	122
1781-82	54	1797-98	56	1813-14	87
1782-83	32	1798-99	53	1814-15	25
1783-84	18	1799-1800	21	1815-16	29
1784-85	71	1800-01	38	1816-17	14
1785-86	30	1801-02	38	1817-18	8
1786-87	39	1802-03	36	1818-19	32
1787-88	64	1803-04	19	1819-20	33

Lincoln Heath

Year	£
1761-62	99
1762-63	161
1763-64	204
1764-65	186
1765-66	184
1766-67	124
1767-68	154
1768-69	116
1769-70	159
1770-71	134
1771-72	133
1772-73	123
1773-74	153
1774-75	186
1775-76	237
1776-77	145
1777-78	93
1778-79	115
1779-80	163
1780-81	112
1781-82	109
1782-83	114
1783-84	79
1784-85	92
1785-86	85
1786-87	92
1787-88	94

PETERBOROUGH T.T.

Year	£	Year	£
1788-89	89	1815-16	206
1789-90	91	1816-17	311
1790-91	110	1817-18	98
1791-92	106	1818-19	160
1792-93	130	1819-20	165
1793-94	291	1820-21	m
1794-95	103	1821-22	2,162
1795-96	146	1822-23	2,223
1796-97	166	1823-24	1,944
1797-98	118	1824-25	1,596
1798-99	108	1825-26	3,677
1799-1800	187	1826-27	1,475
1800-01	282	1827-28	1,737
1801-02	177	1828-29	2,497
1802-03	138	1829-30	1,317
1803-04	196	1830-31	1,573
1804-05	289	1831-32	1,227
1805-06	173	1832-33	1,287
1806-07	141	1833-34	984
1807-08	136	1834-35	873
1808-09	268	1835-36	1,134
1809-10	169	1836-37	1,630
1810-11	165	1837-38	3,189
1811-12	234	1838-39	1,824
1812-13	301	1839-40	2,548
1813-14	253	1840-41	864

Middlesex ISLINGTON T.T. ACCOUNTS 20 (1717) G.L.R.O.Middx.

Year	£	Year	£	Year	£
1750-51	2,843	1771-72	2,271	1800-01	6,281
1751-52	3,238	1780-81	4,393	1801-02	7,097
1752-53	3,538	1781-82	3,888	1802-03	7,078
1753-54	2,900	1782-83	4,208	1803-04	6,855
1754-55	2,257	1783-84	5,233	1804-05	8,989
1755-56	3,348	1784-85	4,187	1805-06	6,922
1756-57	9,007	1785-86	4,612	1806-07	7,794
1757-58	m	1786-87	4,698	1807-08	9,738
1758-59	3,696	1787-88	4,875	1808-09	6,404
1759-60	3,077	1788-89	5,224	1809-10	10,901
1760-61	2,138	1789-90	5,194	1810-11	9,909
1761-62	3,271	1790-91	5,454	1811-12	11,569
1762-63	2,774	1791-92	6,631	1812-13	9,360
1763-64	2,860	1792-93	6,727	1813-14	9,429
1764-65	2,849	1793-94	6,591	1814-15	10,870
1765-66	3,283	1794-95	5,618	1815-16	13,764
1766-67	2,917	1795-96	6,106	1816-17	11,839
1767-68	3,046	1796-97	5,597	1817-18	13,598
1768-69	2,904	1797-98	5,655	1818-19	10,443
1769-70	2,725	1798-99	5,118	1819-20	15,468
1770-71	4,386	1799-1800	5,820		

Middlesex KENSINGTON TURNPIKE TRUST 17 (1717) G.L.R.O. Middx.

Year	£	Year	£	Year	£
1772-73	2,105	1783-84	4,092	1794-95	6,252
1773-74	6,986	1784-85	4,013	1795-96	6,173
1774-75	6,652	1785-86	4,036	1796-97	5,726
1775-76	4,654	1786-87	3,893	1797-98	6,511
1776-77	6,030	1787-88	4,051	1798-99	5,176
1777-78	6,031	1788-89	4,995	1799-1800	4,941
1778-79	5,233	1789-90	4,747	1800-01	8,092
1779-80	4,370	1790-91	5,151	1801-02	7,123
1780-81	3,633	1791-92	5,225	1802-03	6,140
1781-82	4,042	1792-93	5,530	1803-04	7,157
1782-83	4,760	1793-94	5,201	1804-05	7,996

Middlesex METROPOLITAN TURNPIKE RETURNS G.L.R.O. Middx.

1827	65,061	1830	67,980	1833	67,348
1828	71,335	1831	64,883	1834	66,283
1829	66,702	1832	62,235		

Northants. BANBURY - LUTTERWORTH TURNPIKE 52 (1765) N.R.O.

Year	£	Year	£	Year	£
1767-68	45	1780-81	54	1794-95	8
1768-69	30	1781-82	74	1795-96	7
1769-70	44	1782-83	91-	1796-97	7
1770-71	40	1783-84	Act 221	1797-98	5
1771-72	67	1784-85		1798-99	5
1772-73	66	1785-86	52	1799-1800	5
1773-74	109	1786-87	102	1800-01	4
1774-75	40	1787-88	12	1801-02	175
1775-76	30	1788-89	4	1802-03	110
1776-77	35	1790-91	4	1803-04	130
1777-78	96	1791-92		1804-05	126
1778-79	30	1792-93	2	1805-06	152
1779-80	25	1793-94	2	1806-07	498

FARMED

FARMED

Somerset YEOVIL TURNPIKE TRUST 25 (1753)

Year	£	Year	£	Year	£
1777-78	374	1792-93	569	1806-07	728
1778-79	553	1793-94	755	1807-08	320
1779-80	378	1794-95	266	1808-09	427
1780-81	320	1795-96	483	1809-10	512
1781-82	441	1796-97	635	1810-11	554
1782-83	338	1797-98	370	1811-12	456
1783-84	420	1798-99	257	1812-13	560
1784-85	234	1799-1800	456	1813-14	888
1785-86	459	1800-01	530	1814-15	601
1786-87	856	1801-02	346	1815-16	520
1787-88	386	1802-03	439	1816-17	724
1788-89	150	1803-04	379	1817-18	428
1789-90	291	1804-05	358	1818-19	596
1790-91	239	1805-06	665	1819-20	1,606
1791-92	511				

Yorkshire, West Riding SKIPTON - KNARESBOROUGH TURNPIKE 25

West Riding W.R.A.

Year	£	Year	£	Year	£
1777-78	1,106	1792-93	246	1807-08	88
1778-79	846	1793-94	196	1808-09	705
1779-80	1,156	1794-95	145	1809-10	444
1780-81	346	1795-96	183	1810-11	280
1781-82	55	1796-97	197	1811-12	855
1782-83	487	1797-98	173	1812-13	267
1783-84	195	1798-99	419	1813-14	161
1784-85	168	1799-1800	460	1814-15	115
1785-86	125	1800-01	294	1815-16	73
1786-87	141	1801-02	288	1816-17	74
1787-88	155	1802-03	118	1817-18	83
1788-89	176	1803-04	245	1818-19	31
1789-90	197	1804-05	364	1819-20	98
1790-91	282	1805-06	79	1820-21	518
1791-92	278	1806-07	703	1821-22	30

Surrey REIGATE TURNPIKE TRUST 31 (1755)

Year	£	Year	£	Year	£
1761-62	318	1783-84	807	1799-1800	1,814
1762-63	314	1784-85	994	1800-01	1,351
1763-64	242	1785-86	662	1801-02	1,202
1764-65	285	1786-87	569	1802-03	1,264
1765-66	301	1787-88	539	1803-04	1,206
1766-67	288	1788-89	555	1804-05	1,882
1767-68	189	1789-90	679	1805-06	2,137
1768-69	261	1790-91	600	1806-07	3,077
1774-75	705	1791-92	936	1807-08	2,807
1775-76	752	1792-93	967	1808-09	2,466
1776-77	869	1793-94	843	1809-10	1,774
1777-78	423	1794-95	1,030	1810-11	1,769
1778-79	432	1795-96	1,134	1811-12	2,509
1779-80	498	1796-97	1,163	1812-13	2,127
1780-81	530	1797-98	1,469	1813-14	2,168
1781-82	660	1798-99	1,095	1814-15	1,765
1782-83	882				

Warwickshire STRATFORD, SHIPSTON - LONG COMPTON TURNPIKE 20 (1730) W.R.O.

Year	£	Year	£	Year	£
1784-85	712	1797-98	850	1810-11	1,048
1785-86	542	1798-99	801	1811-12	1,308
1786-87	599	1799-1800	725	1812-13	1,920
1787-88	858	1800-01	806	1813-14	1,366
1788-89	607	1801-02	677	1814-15	1,133
1789-90	914	1802-03	514	1815-16	1,077
1790-91	823	1803-04	738	1816-17	1,535
1791-92	1,018	1804-05	685	1817-18	1,695
1792-93	885	1805-06	829	1818-19	1,012
1793-94	1,016	1806-07	1,074	1819-20	2,420
1794-95	1,040	1807-08	1,298	1820-21	2,304
1795-96	968	1808-09	975	1821-22	2,573
1796-97	865	1809-10	1,163		

East Riding YORK - GARROWBY TURNPIKE TRUST 18 E.R.R.O.

1765-66	961	1777-78	162	1789-90	268
1766-67	1,169	1778-79	146	1791-92	311
1767-68	104	1779-80	103	1792-93	249
1768-69	69	1780-81	103	1793-94	235
1769-70	117	1781-82	71	1794-95	249
1770-71	109	1782-83	m	1795-96	319
1771-72	97	1784-85	284	1796-97	265
1772-73	101	1785-86	257	1797-98	273
1773-74	211	1786-87	259	1798-99	262
1774-75	m	1787-88	172	1799-1800	262
1775-76	152	1788-89	230	1800-01	699
1776-77	106				

West Riding BOROUGHBRIDGE - RIPON TURNPIKE 10 W.R.A.

Year	£	Year	£	Year	£
1752-53	328	1773-74	60	1794-95	55
1753-54	441	1774-75	43	1795-96	86
1754-55	169	1775-76	45	1796-97	46
1755-56	241	1776-77	37	1797-98	43
1756-57	110	1777-78	223	1798-99	62
1757-58	59	1778-79	53	1799-1800	53
1758-59	85	1779-80	55	1800-01	52
1759-60	49	1779-80	55	1801-02	30
1760-61	47	1780-81	32	1802-03	46
1761-62	50	1781-82	40	1803-04	45
1762-63	45	1782-83	40	1804-5	35
1763-64	43	1783-84	44	1805-06	51
1764-65	146	1784-85	36	1806-07	38
1765-66	55	1785-86	45	1807-08	30
1766-67	m	1786-87	71	1808-09	41
1767-68	199	1787-88	50	1809-10	30
1768-69	55	1788-89	128	1810-11	36
1769-70	56	1789-90	31	1811-12	49
1770-71	51	1790-91	86	1812-13	50
1771-72	59	1791-92	90	1813-14	46
1772-73	89	1792-93	57		
		1793-94	35		

West Riding — HARROGATE - HUTTON MOOR — 20 — W.R.A.

Year	£	Year	£	Year	£
1752-53	723	1773-74	179	1794-95	446
1753-54	874	1774-75	155	1795-96	605
1754-55	712	1775-76	148	1796-97	336
1755-56	219	1776-77	160	1797-98	292
1756-57	344	1777-78 N.A.	284	1798-99	477
1757-58	313	1778-79	232	1799-1800	526
1758-59	66	1779-80	250	1800-01	633
1759-60	180	1780-81	235	1801-02	699
1760-61	66	1781-82	189	1802-03	343
1761-62	56	1782-83	241	1803-04	447
1762-63	93	1783-84	252	1804-05	381
1763-64	95	1784-85	287	1805-06	353
1764-65	212	1785-86	294	1806-07	524
1765-66	80	1786-87	332	1807-08	891
1766-67	186	1787-88	383	1808-09	990
1767-68	86	1788-89	403	1809-10	443
1768-69	69	1789-90	119	1810-11	416
1769-70	82	1790-91	605	1811-12	462
1770-71	196	1791-92	444	1812-13	1,083
1771-72	254	1792-93	389	1813-14	1,084
1772-73	129	1793-94	532		

West Riding KNARESBOROUGH - PATELEY BRIDGE 10 W.R.A.

year	£	Year	£	Year	£
1759-60	966	1778-79	107	1802-03	268
1760-61	292	1779-80	97	1803-04	85
1761-62	435	1780-81	71	1804-05	108
1762-63	148	1781-82	60	1805-06	291
1763-64	119	1782-83	49	1806-07	142
1764-65	20	1783-84	9	1807-08	117
1765-66	21	1784-85	21	1808-09	196
1766-67	66	1785-86	45	1809-10	307
1767-68	66	1791-92	17	1810-11	331
1768-69	67	1792-93	15	1811-12	178
1769-70	72	1793-94	12	1812-13	174
1770-71	72	1794-95	10	1813-14	174
1771-72	72	1795-96	10	1814-15	172
1772-73	55	1796-97	39	1815-16	193
1773-74	170	1797-98	36	1816-17	282
1774-75	170	1798-99	36	1817-18	259
1775-76	107	1799-1800	36	1818-19	314
1776-77	70	1800-01	36	1819-20	169
1777-78	73	1801-02	174	1820-21	143

West Riding — HUDDERSFIELD AND PENISTONE RD. 10 W.R.A.
(2nd district of Sheffield-Halifax)

Year	£	Year	£	Year	£
1777-78	2,252	1783-84	175	1794-95	73
1778-79	1,011	1784-85	55	1795-96	41
1779-80	111	1790-91	15	1796-97	87
1780-81	204	1791-92	37	1797-98	372
1781-82	251	1792-93	25	1798-99	118
1782-83	62	1793-94	15	1799-1800	57

West Riding — YORK - TADCASTER 17 (1790) W.R.A.

1816-17	1,177	1818-19	2,049	1820-21	1,599
1817-18	1,654	1819-20	1,401	1821-22	1,507

Staffordshire — HUNTBY AND WENTLY ROCKS DISTRICT. CHEADLE ROAD
26 Staffs R.O.

1762-63	808	1777-78	61	1791-92)		15
1763-64	346	1778-79	29	1792-93)		9
1764-65	30	1779-80	70	1793-94)		16
1765-66	121	1780-81	40	1794-95)		17
1766-67	239	1781-82	30	1795-96)		12
1767-68	70	1782-83)	12	1796-97)	Farmed Out	7
1769-70	220	1783-84)	12	1797-98)		28
1770-71	308	1784-85)	12	1798-99)		26
1771-72	183	1785-86)	17	1799-1800)		29
1772-73	398	1786-87) Farmed Out	15	1800-01)		18
1773-74	94	1787-88)	3	1801-02)		9
1774-75	49	1788-89)	9	1802-03)		36
1775-76	142	1789-90)	9	1803-04		176
1776-77	63	1790-91)	7	1804-05		685

APPENDIX C

QUASI-NET EXPENDITURE FIGURES FOR 9 BRIDGE TRUSTS

Full details of the bridge trust records on which this Appendix is based can be found in the Primary Sources list below.

DATCHET BRIDGE, BUCKINGHAMSHIRE

Year	£	Year	£
1750-51	21	1781-82	12
1751-52		1782-83	18
1752-53	18	1783-84	22
1753-54	26	1784-85	8
1754-55	6	1785-86	21
1755-56	5	1786-87	25
1756-57	15	1787-88	23
1757-58	16	1788-89	12
1758-59	16	1789-90	14
1759-60	10	1790-91	10
1760-61	9	1791-92	10
1761-62	15	1792-93	20
1762-63	17	1793-94	18
1763-64	18	1794-95	17
1764-65	18	1795-96	10
1765-66	18	1796-97	7
1766-67	21	1797-98	13
1767-68	17	1798-99	17
1768-69	2	1799-1800	12
1769-70	39	1800-01	54
1770-71	18	1801-02	11
1771-72	18	1802-03	4
1772-73	2	1803-04	11
1773-74	7	1804-05	14
1774-75	58	1805-06	86
1775-76	20	1806-07	4
1776-77	25	1807-08	4
1777-78	9	1808-09	5
1778-79	34	1809-10	52
1779-80	17	1810-11	13
1780-81	23	1811-12	72

DATCHET BRIDGE, BUCKINGHAMSHIRE

Year	£	Year	£
1812-13	14	1842-43	127
1813-14	89	1843-44	61
1814-15	28	1844-45	32
1815-16	16	1845-46	128
1816-17	16	1846-47	123
1817-18	255	1847-48	79
1818-19	108	1848-49	121
1819-20	65	1849-50	74
1820-21	38	1850-51	154
1821-22	95	1851-52	154
1822-23	114	1852-53	155
1823-24	173	1853-54	11
1824-25	140	1854-55	136
1825-26	75	1855-56	34
1826-27	60		
1827-28	75		
1828-29	139		
1829-30	66		
1830-31	125		
1831-32	156		
1832-33	32		
1833-34	47		
1834-35	103		
1835-36	139		
1836-37	151		
1837-38	26		
1838-39	66		
1839-40	58		
1840-41	90		
1841-42	51		

MARLOW BRIDGE, BUCKINGHAMSHIRE

Year	£	Year	£
1750-51	121	1791-92	47
1752-53	2	1792-93	48
1753-54	3	1793-94	36
1754-55	3	1794-95	5
1760-61	15	1795-96	6
1764-65	71	1796-97	3
1765-66	3	1797-98	36
1766-67	4	1798-99	250
1767-68	4	1799-1800	
1768-69	9	1800-01	6
1769-70	13	1801-02	12
1770-71	9	1802-03	13
1771-72	5	1803-04	45
1772-73	7	1804-05	11
1773-74	6	1805-06	3
1774-75	6	1806-07	2
1775-76	125	1807-08	4
1776-77	167	1808-09	23
1777-78	29	1809-10	5
1778-79	39	1810-11	54
1779-80	14	1811-12	23
1781-82	23	1812-13	4
1783-84	9	1813-14	138
1784-85	7	1814-15	104
1785-86	6	1815-16	321
1786-87	16	1816-17	30
1787-88	6	1817-18	11
1788-89	13	1818-19	78
1789-90	110	1819-20	227
1790-91	15	1820-21	170

MARLOW BRIDGE, BUCKINGHAMSHIRE

Year	£	Year	£
1821-22	70	1848-49	16
1822-23	50	1849-50	14
1823-24	152	1850-51	20
1824-25	70	1851-52	80
1825-26	77	1852-53	67
1826-27	70	1853-54	37
1827-28	439	1854-55	65
1828-29	440	1855-56	10
1829-30	2,471		
1830-31	6,693		
1831-32	3,601		
1832-33	2,754		
1833-34	5,048		
1834-35	1,132		
1835-36	18		
1836-37	429		
1837-38	18		
1838-39	55		
1840-41	103		
1841-42	104		
1842-43	106		
1843-44	18		
1844-45	5		
1845-46	180		
1846-47	11		
1847-48	27		

NEWPORT PAGNELL BRIDGE, BUCKINGHAMSHIRE

Year	£	Year	£
1809-10	6,081	1836-37	134
1810-11	4,710	1837-38	77
1811012	1,518	1838-39	58
1812-13	1,408	1839-40	87
1813-14	553	1840-41	60
1814-15	487	1841-42	87
1815-16	508	1842-43	217
1816-17	123	1843-44	91
1817-18	104	1844-45	60
1818-19	133	1845-46	56
1819-20	73	1846-47	50
1820-21	46	1847-48	52
1821-22	62	1848-49	57
1822-23	64	1849-50	56
1823-24	68	1850-51	56
1824-25	51	1851-52	85
1825-26	1,135	1852-53	47
1826-27	490	1853-54	49
1827-28	5	1854-55	53
1828-29	77	1855-56	48
1829-30	43		
1830-31	48		
1831-32	149		
1832-33	27		
1833-34	306		
1834-35	74		
1835-36	70		

BATTERSEA BRIDGE, LONDON

Year	£	Year	£
1821-22	1,532	1832-33	1,103
1822-23	1,536	1833-34	917
1823-24	1,001	1834-35	1,245
1824-25	2,373	1835-36	1,272
1825-26	1,338	1836-37	1,066
1826-27	1,343	1837-38	1,421
1827-28	1,015	1838-39	1,027
1828-29	1,026	1839-40	1,196
1829-30	1,160	1840-41	829
1830-31	1,194	1841-42	1,171
1831-32	1,563	1842-43	1,789

BLACKFRIARS BRIDGE, LONDON

Year	£	Year	£
1759-60	333	1793-94	598
1760-61	13,635	1794-95	839
1761-62	10,873	1795-96	274
1762-63	19,210	1796-97	698
1763-64	27,792	1797-98	334
1764-65	25,801	1798-99	220
1765-66	25,942	1799-1800	425
1766-67	19,692	1800-01	695
1767-68	21,710	1801-02	425
1768-69	8,112	1802-03	452
1769-70	12,832	1803-04	784
1770-71	3,221	1804-05	437
1771-72	2,246	1805-06	410
1772-73	2,165	1806-07	454
1773-74	5,328	1807-08	395
1774-75	910	1808-09	656
1775-76	5,791	1811-12	485
1776-77	1,690	1812-13	3,164
1777-78	647	1813-14	2,263
1778-79	1,747	1814-15	799
1779-80	578	1815-16	893
1780-81	1,009	1816-17	1,244
1781-82	35	1817-18	703
1784-85	567	1818-19	959
1785-86	787	1819-20	1,549
1786-87	649	1820-21	1,733
1787-88	696	1821-22	453
1788-89	653	1822-23	1,175
1789-90	539	1823-24	858
1790-91	1,096	1824-25	1,713
1791-92	1,646	1825-26	1,425
1792-93	399	1826-27	1,021
		1827-28	955

BLACKFRIARS BRIDGE, LONDON

Year	£	Year	£
1828-29	1,199	1845-46	706
1829-30	1,195	1846-47	1,059
1830-31	3,842	1847-48	669
1831-32	657	1848-49	692
1832-33	904	1849-50	666
1833-34	590	1850-51	6,686
1834-35	15,936	1851-52	1,388
1835-36	11,267	1852-53	1,128
1836-37	9,754		
1837-38	8,832		
1838-39	18,768		
1839-40	20,618		
1840-41	7,853		
1841-42	1,999		
1842-43	25,886		
1843-44	984		
1844-45	623		

FULHAM BRIDGE, LONDON

Year	£	Year	£
1750-51	806	1812-13	1,285
1751-52	651	1813-14	1,932
1752-53	670	1814-15	2,060
1753	614	1815-16	2,344
1754-55	641	1816-17	1,544
1755-56	605	1817-18	2,160
1756-57	1,040	1818-19	1,448
1757-58	979	1820-21	3,054
1758-59	853	1821-22	2,134
1759-60	750	1822-23	1,401
1760-61	1,473	1823-24	1,584
1761-62	1,212	1824-25	2,875
1762-63	801	1825-26	2,420
1763-64	848	1826-27	3,034
1764-65	609	1827-28	1,442
1765-66	760	1828-29	1,280
1766-67	789	1829-30	1,406
1767-68	703	1830-31	1,569
1768-69	695	1831-32	1,519
1769-70	447	1832-33	1,671
1776-77	561	1833-34	1,483
1777-78	751	1834-35	1,333
1778-79	1,153	1835-36	1,546
1779-80	1,004	1836-37	1,436
1780-81	1,080	1837-38	1,434
1805-06	1,010	1838-39	1,546
1806-07	1,291	1839-40	1,457
1807-08	724	1840-41	1,385
1808-09	1,380	1841-42	1,591
1809-10	987	1842-43	1,315
1810-11	975	1843-44	1,087
1810-11	1,794	1844-45	1,033
1811-12	1,318	1845-46	1,322
		1846-47	1,203

FULHAM BRIDGE, LONDON

Year	£	Year	£
1847-48	2,290	1849-50	2,367
1848-49	1,444	1850-51	1,299

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HAMMERSMITH BRIDGE, LONDON

Year	£	Year	£
1824-25	42,221	1845-46	1,424
1825-26	44,319	1846-47	1,452
1826-27	10,600	1847-48	1,177
1827-28	25,158	1848-49	1,844
1828-29	46,310	1849-50	1,434
1829-30	28,206	1850-51	1,603
1830-31	1,220		
1831-32	2,349		
1832-33	1,199		
1833-34	968		
1834-35	1,990		
1835-36	1,725		
1836-37	1,099		
1837-38	1,308		
1838-39	1,204		
1839-40	1,074		
1840-41	2,111		
1841-42	1,109		
1842-43	3,213		
1843-44	2,973		
1844-45	2,554		

LONDON BRIDGE

Year	£	Year	£
1756-57	2,818	1834-35	14,510
1757-58	15,094	1835-36	19,511
1758-59	13,860	1836-37	6,024
1759-60	14,242	1837-38	3,318
1760-61	10,751	1838-39	3,787
1762-62	13,716	1839-40	8,794
1762-63	624	1840-41	10,747
1824-25	112,128	1841-42	3,965
1825-26	112,600	1842-43	5,110
1826-27	97,499	1843-44	6,754
1827-28	81,425	1844-45	2,604
1828-29	65,204	1845-46	2,788
1829-30	73,874	1846-47	470
1830-31	97,011	1847-48	364
1831-32	69,667	1848-49	674
1832-33	74,588	1849-50	269
1833-34	24,001		

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VAUXHALL BRIDGE, LONDON

Year	£
1811	4,108
1812-1816	85,613

STAINES BRIDGE, MIDDLESEX

Year	£
1828-29	1,808
1829-30	20,965
1830-31	23,608
1831-32	379
1832-33	10,935
1833-34	471
1834-35	19,201
1835-36	130
1836-37	76
1837-38	108
1838-39	189
1839-40	166
1840-41	181
1843-44	179

Bridge expenditure figures from James Dredge, Thames Bridges, 1897. These have been averaged over their construction and included in the Bridge Trust Expenditure totals.

	Date	£	
Battersea Bridge	1771	20,000	(wood)
Folly Bridge, Oxford	1825-27	11,000	(replacing medieval bridge)
Henley Bridge		10,000	(wood to 1786, then stone)
Maidenhead Bridge	1772-1785	19,000	
Kingston Bridge	1825-28	40,000	(repairing medieval structure)
Richmond Bridge	1774-77	26,000	
Southwark Bridge	1814-19	800,000	
Staines Bridge	1792-96	9,000	(reconstruction of medieval structure)
	1801-03	5,000	(further reconstruction)
	1807	5,000	(" ")
Wallingford Bridge	1809	7,000	(reconstruction of medieval structure)
Walton Bridge	1780	2,000	(repairs)
Waterloo Bridge	1813-17	677,000	
Vauxhall Bridge	1811-16	150,000	(plus 150,000 for Vauxhall Bridge Road) (£241 per annum to maintain)

APPENDIX D

PARISH SURVEYORS' EXPENDITURE FOR 5 COUNTIES

All the records listed in this Appendix are to be found in the County Record Offices concerned.

BERKSHIRE PARISH SURVEYORS ACCOUNTS

Parish	Date	Ref.
Abingdon St. Nicholas	1794-1830	D.P.2/21/1
Ashbury	1776-1862	D.P.9/21/1
Beedon	1775-1840	D.P.15/21/1
Blewbury	1803-1807	D.P.20/21/1
Bradfield	1768-1818	D.P.22/21/1
Bray	1821-1831	D.P.23/21/1
Brimpton	1823-1836	D.P.26/21/1
Drenchworth	1764-1817	D.P.46/21/1
Drayton	1779-1819	D.P.48/21/1
Easthampstead	1814-1823	D.P.49/21/1
Englefield	1768-1836	D.P.52/21/1,3
East Hendred	1811	D.P.66/21/1
Pangbourne	1823-29	D.P.91/21/1
Peasemore	1769-95	D.P.92/21/1
Sonning	1771-1810	D.P.113/21/1
Kingston Lisle	1786-1815	D.P.115B/21/1
Little Wittenham	1798-1807 1815-1836	D.P.152/21/1,2
Woolhampton	1769-1808	D.P./156/21/1
Caversham	1780-1828	D.P./162/21/1,2,3,4

BERKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Abingdon St, Nicholas	Ashbury	Beedon	Blewbury	Bradfield	Bray
	£	£	£	£	£	£
1768-79					133	
1769-70					76	
1770-71					49	
1771-72					35	
1772-73					34	
1773-74					17	
1774-75			10		68	
1775-76		4	7		6	
1776-77		10	7		13	
1777-78		26	30		12	
1778-79		5	7		9	
1779-80		16	11		6	
1780-81		15	11		6	
1781-82		15	14		9	
1782-83		5	14		6	
1783-84		6	17		8	
1784-85		5	11		4	
1785-86		5	11		4	
1786-87		6	11		3	
1787-88		16	9		17	
1788-89		14	13		44	
1789-90		24	5		9	
1790-91		13	4		62	
1791-92		5	8		25	
1792-93		5	7		5	
1793-94		5	10		15	
1794-95	3	4	13			
1795-96		5	10			
1796-97		5	10			
1797-98		5	11			
1798-99	14	4				

BERKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Abingdon St. Nicholas £	Ashbury £	Beedon £	Blewbury £	Bradfield £	Bray £
1799-1800	14	5	47			
1800-01		5	53			
1801-02		5				
1802-03		4	8			
1803-04		3	9	23		
1804-05		8	6	21	25	
1805-06		16	6		25	
1806-07		8	12		25	
1807-08		8	6		28	
1808-09		18	6		50	
1809-10		7	4		15	
1810-11		6	8		22	
1811-12		3	5		18	
1812-13		3	11			
1813-14		10	8			
1814-15		3	17			
1815-16		3	6		67	
1816-17		9	6		60	
1817-18		6	6		28	
1818-19		7	42			
1819-20		3	7			
1820-21		6	4			
1821-22		5	5			34
1822-23		5	3			22
1823-24		4	6			35
1824-25	60	5	4			42
1825-26		5	10			35
1826-27		8	16			27
1827-28		18	11			40
1828-29	21	20	7			38
1829-30	28	33	9			31
1830-31		26	24			32

BERKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Abingdon St. Nicholas £	Ashbury £	Beedon £	Blewbury £	Bradfield £	Bray £
1831-32		31	20			
1832-33		48	19			
1833-34		41	12			
1834-35		48	14			

Year	Denchworth £	Drayton £	Englefield £	East Hendred £
1763-64	5			
1764-65	7			
1765-66	5			
1766-67	5			
1767-68			20	
1768-69	4		20	
1769-70			37	
1770-71			27	
1771-72	5		30	
1772-73			14	
1773-74			14	
1774-75	10		46	
1775-76	5		6	
1776-77	12		11	
1777-78	5		9	
1778-79	4	16	59	
1779-80	4	5	20	
1780-81	10	5	22	
1781-82		6	15	
1782-83	8	26	18	
1783-84	4	18	14	
1784-85	5	10	19	
1785-86	4	15	13	
1787-88	4	13	15	

BERKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Denchworth £	Drayton £	Easthampstead £	Englefield £	East Hendred £
1787-88	4	22		26	
1788-89	7	25		8	
1789-90	6	17		32	
1790-91	7	11		16	
1791-92	13	9		39	
1792-93	3	26		41	
1793-94	3	22		34	
1794-95	3	20		9	
1795-96	10	31		8	
1796-97	10	22		25	
1797-98	16	33		16	
1798-99	7	34		10	
1799-1800	10	32		18	
1800-01	3	41		10	
1801-02	7	36		7	
1802-03	16	38		19	
1803-04	7	44		14	
1804-05	8	76		10	
1805-06	9	66		7	
1806-07	13	95		10	
1807-08	5	53		31	
1808-09	13	60		25	
1809-10	7	73			
1810-11	19	48			
1811-12	22	66			
1812-13	13	20			
1813-14	5	20		56	
1814-15	16	20	13	57	
1815-16		20	11	69	
1816-17		21	12	17	
1817-18		16	7	27	
1818-19		17	6	31	

BERKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Denchworth £	Drayton £	Easthampstead £	Englefield £	East Hendred £
1819-20			12	30	
1820-21			11	44	
1821-22			43	52	22
1822-23			12	50	
1823-24				47	
1824-25				29	
1825-26				33	
1826-27				37	
1827-28				40	
1828-29				30	
1829-30				106	
1830-31				91	
1831-32				21	
1832-33				23	
1833-34				23	
1834-35				14	

Year	Peasemore £	Sonning £	Kingston Lisle £	Woolhampton £	Caversham £
1768-69				19	
1769-70	3			19	
1770-71	3	4		22	
1771-72	5			23	
1772-73	8			21	
1773-74	8	10		22	
1774-75	11	4		3	
1775-76	6	4		18	
1776-77	21	3		30	
1777-78	4	3		6	
1778-79	4			159	
1779-80	4	2		16	
1780-81	10	5		26	50

Year	Peasemore £	Sonning £	Kingston Lisle £	Little Wittenham £	Woolhampton £	Caversham £
1781-82	10	5			5	48
1782-83	5	8			14	87
1783-84	7	6			14	48
1784-85	5	5	31		8	73
1785-86	7	6	18		29	58
1786-87	17	7	16		22	53
1787-88	5	13	29		18	68
1788-89	22	11	30		24	36
1789-90	11	8	26		11	53
1790-91	33	9	27		3	54
1791-92	25	9	30		4	67
1792-93	42	12	29		39	70
1793-94	38	12	18		14	72
1794-95	34	30	32		9	72
1795-96		60	31		11	65
1796-97		23	28			68
1797-98		22	23		13	42
1798-99		27	51	5	10	117
1799-1800		26	35	4	11	87
1800-01		40	47	7	24	74
1801-02		12	53	6	10	87
1802-03		14	39	3	12	75
1803-04		4	31	6	12	63
1805-06		20	18		7	68
1805-06			15		9	77
1806-07			22	3	22	94
1807-08			18		26	64
1808-09		13	18			89
1809-10		20	40			91
1810-11			95			106
1811-12			38			74
1812-13			44			110

BERKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Pangbourne £	Kingston Lisle £	Little Wittenham £	Caversham £
1813-14		57		94
1814-15			172	120
1815-16			160	206
1816-17			49	155
1817-18			41	150
1818-19			36	223
1819-20			12	140
1820-21			28	135
1821-22			23	175
1822-23			9	157
1823-24	57		9	130
1824-25	33		10	174
1825-26	60		11	197
1826-27	101		9	157
1827-28	136		8	167
1828-29	122		5	
1829-30	105		14	
1830-31			12	
1831-32			17	
1832-33			17	
1833-34			18	

ESSEX PARISH SURVEYORS ACCOUNTS

Parish	Date	Ref.
Aldham	1787-1884	D/P 208/21/1
Ashdon	1784-1858	D/P 18/5/1,2,3,4
Ashingdon	1786-1836	D/P 89/21
Aveley	1810-1826	D/P 157/21/1
G t. Baddow	1804/1834	D/P 65/21/1,2
Lt. Baddow	1814-1836	D/P 35/21/1
Lt. Bardfield	1807-1868	D/P 348/21
Barling	1797-1840	D/P 342/20
S. Benfleet	1784-1836	D/P 300/21/1,2
Lt. Bentby	1802-1837	D/P 359/21
Gt. Braxsted	1786-1836	D/P 133/21
Broomfield	1819-1833	D/P 248/21
Bulmer	1827-1836	D/P 358/21
Bulpham	1799-1836	D/P 239/21/2
Gt. Burstead	1817-1822	D/P 139/21
Lt. Burstead	1801-1837	D/P 100/21
Canewdon	1826-1838	D/P 219/21/2
Gt. Canfield	1783-1825	D/P 364/21
Canvey	1742-1789	D/P 270/21
Chelmsford	1781-1815	D/P 94/21/1,2,3
Chingford	1810-1821	D/P 355/21/1
Gt. Chishall	1775-1789	D/P 210/21
Gt. Clacton	1768-1859	D/P 179/21/1
Lt. Clacton	1769-1805	D/P 80/21/1,2
Colne Engaine	1801-30	D/P 193/21
Cranham	1798-1836	D/P 118/21/2,3
Dedham	1830-5	D/P 26/21/1
Downham	1788-1823	D/P 257/21/1
Gt. Dunmore	1809-36	D/P 11/21/1
Eastwood	1820-35	D/P 102/21/3
Elmstead	1767-1844	D/P 168/21/1,2
Fambridge	1781-1825	D/P 206/21
Harwich	1793-1800	T.A. 333, 170

Parish	Date	Ref.
Hatfield Broad Oak	1790-1837	D/P 4/20/1,2
Hatfield Peveril	1813-41	D/P 42/21/1
S. Hedingham	1724-61	D/P 93/21/1
Ingatestone	1791-1821	D/P 31/21/1
Ingrave	1795-1808	D/P 187/21
Inworth	1818-36	D/P 189/21/1
Kelvedon	1802-25	D/P 134/21/1,2
Leigh	1801-9	D/P 284/21/1
Gt. Leigh	1803-41	D/P 137/21/1,2,3,4
Lt. Leigh	1772-1802	D/P 151/21
Lindsell	1822-44	D/P 110/21/1,2
Moreton	1827-58	D/P 72/21
Mundon	1797-1858	D/P 238/21/1,2
Naseing	1747-68	D/P 321/21/1
Black Notley	1758-1815	D/P 150/21/1,2
White Notley	1728-84	39/21
Gt. Oakley	1799-1837	47/21/1
N. Ockenden	1828-88	308/21/1
Chip. Ongar	1829-42	124/21/1,2,3,4
Peldon	1776-99	287/21/2
Pitsea	1803-15	D/P 23/81/8
Prittlewell	1815-64	183/21/1
Ramsey	1785-1818	D/P 7/21/1
Rawrush	1769-1830	40,1,2,3
Rayleigh	1785-1817	332/20/1,2
Rettendon	1769-1797	D/P 251/21/1
Aythorpe Roothing	1792-1836	63/21/1,2
Berners Roothing	1794-1836	279/21
Roxwell	1824-36	288/21/1
Roydon	1818-36	60/21/1,2
St. Osyth	1743-1839	322/21/1,2,3,4
Gt. Sampford	1784-1852	289/21/1,2
Lt. Sampford	1801-34	122/21/1,2

Parish	Date	Ref.
Sandon	1763-1861	253/21/1
Southminster	1773-1800	259/21/1,2
Stambourne	1775-1817	24/21
Gt. Stambridge	1793-1825	D/P 218 (Microfilm T/A 405)
Stanford Rivers	1772-1836	140/21/1,2,3
Terling	1763-1815	299/21/1,2
Thaxted	1766-1827	16/21/14
Theydon Garnon	1809-39	D/P 152/1
Thorpe le Soken	1768-1812	D/P 8/21/1
Thorrington	1823-41	293/21
Thundersley	1759-97	357/21/1
Tilbury clare	1823-31	164/21/1
West Tilbury	1825-35	91/21
Tolleshurst	1752-1835	105/21/1,2
Tolleshurst Majin	1768-1813	240/21
Toppesfield	1790-1835	163/21
Upminster	1790-1833	117/21/1,2
Lt. Wakering	1776-1818	194/20/1
Gt. Waltham	1815-22	121/21
S. Weald	1772-1825	128/21/1
Wennington	1771-1836	158/21/2
Wethersfield	1776-1843	119/21/1
Wicken Bonhunt	1798-1839	2/21
Wickham Bishops	1791-97	236/21/2
Gt. Wigborough	1805-37	319/21
Witham	1818-27	D/P 30/21
Wivenhoe	1794-1815	D/P 277/21
Woodford	1804-37	D/P 167/21/1,2,3,4
Woodham Mortimer	1770-1837	274/21
Woodham Walter	1804-36	101/21/1
Wormingford	1791-1837	185/21/1,2
Writtle	1802-31	50/21/1

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Ashden £	Ashingdon £	Aldham £	Aveley £
1767-68				
1772-73	43			
1773-74	20			
1774-75	39			
1775-76	25			
1776-77	37			
1777-78	46			
1778-79	45			
1779-80	52			
1780-81	29			
1781-82	56			
1782-83	40			
1783-84	42			
1784-85	47			
1785-86	51			
1786-87	82	14		
1787-88	52	17		
1788-89	47	16		
1789-90	53	30		
1790-91	53	33		
1791-92	31	21		
1792-93	58	27		
1793-94	86	35		
1794-95	68	39		
1795-96	75	19		
1796-97	50	17		
1797-98	53	43	14	
1798-99	59	31	10	
1799-1800	83	16	22	
1800-01	63	21	18	
1801-02	54	23	17	15
1802-03	45	39	15	32

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Ashdon £	Ashingdon £	Aldham £	Aveley £	Gt.Baddow £	Lt.Bardfield £
1803-04	34	13	15	45		
1804-05	77	29	13		169	
1805-06	68	47	17	11	130	
1806-07	79	32	16	7	135	32
1807-08	97	41	18	8	166	16
1808-09	80	55	16	27	137	61
1809-10	88	49	15	29	121	47
1810-11	87	17	14	19	116	69
1811-12	140	32	16	34	194	35
1812-13	148	26	21	7	233	29
1813-14	92	36	12	21	202	34
1814-15	160	22	15	27	313	40
1815-16	75	63	13	11		40
1816-17	86	61	15	7		37
1817-18	88	42	12	99		45
1818-19	274	51	21	24		45
1819-20	128	43	26	10		41
1820-21	74	27	20	31		26
1821-22	68	20	20	24		25
1822-23	47	28	12	22		36
1823-24	59	21	20	26		43
1824-25	68	6	26	29		50
1825-26	66	15	28	15		57
1826-27	41	27	24		206	53
1827-28	40	23	15		133	30
1828-29	49	5	18		117	36
1829-30	294	18	19		155	53
1830-31		11	20		107	62
1831-32		11	10		196	39
1832-33					176	53
1833-34					172	41

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Little Baddow £	Barling £	S. Benfleet £	Gt. Braxted £	Little Bentley £
1783-84			39		
1784-85			61		
1785-86			53	21	
1786-87			47	15	
1787-88			50	22	
1788-89			18	23	
1789-90			201	27	
1790-91			222	27	
1791-92			153	30	
1792-93			158	34	
1793-94			110	28	
1794-95			161	40	
1795-96			251	33	
1796-97			226	24	
1797-98			220	49	
1798-99		12	150	18	
1799-1800			185	49	
1800-01			189	25	
1801-02		17	239	29	12
1802-03			89	18	26
1803-04			159	63	13
1804-05		6	181	49	33
1805-06		16	235	61	25
1806-07			167	118	29
1807-08			106	57	21
1808-09			281	50	17
1809-10		16	149	30	35
1810-11		68	236	69	18
1811-12		30	256	34	24
1812-13		9	89	69	23

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ESSEX PARISH SURVEYORS ACCOUNTS

Year	Little Baddow £	Barling £	South Benfleet £	Great Braxted £	Little Bentley £	Broomfield £	Bulmer £
1813-14		6	242	79	72	93	
1814-15	12	5	202	66	125		
1815-16	24		207	90	84		
1816-17	27	48	213	60	59		
1817-18	54	10	255	79	120		
1818-19	44	7	288	70	94		
1819-20			202	56	54	87	
1820-21			165	54	47	63	
1821-22	24	16	131	52	20	87	
1822-23	24	2	119	34	35	80	
1823-24	16	5	109	41	41	56	
1824-25	10	16	193	74	42	60	
1825-26	16	5	117	48	51	51	
1826-27	12	6	136	59	31	63	
1827-28	15	12	153		30	108	102
1828-29	24	32			33	60	126
1829-30	15	5			33	57	139
1830-31	15	28			42	56	113
1831-32	15	12			50	61	118
1832-33	25	5			37	37	83
1833-34							74

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Chelmsford £	Gt.Canfield £	Lt. Clacton £	Canvey £	Canewdon £
1750-51				8	
1751-52				8	
1752-53	46			12	
1753-54	44			13	
1754-55	20			12	
1755-56	47			9	
1756-57	41			11	
1757-58	48			12	
1758-59	51			14	
1759-60	51			15	
1760-61	40			9	
1761-62	40			27	
1762-63	38			15	
1763-64	57			12	
1764-65	43			15	
1765-66	45			10	
1766-67	27			12	
1767-68				10	
1768-69			11	12	
1769-70			4	12	
1770-71			10	8	
1771-72			5	14	
1772-73			39	9	
1773-74			5	21	
1774-75			6	12	
1775-76			11		
1776-77			6		
1777-78			6		
1778-79			7		
1779-80			9		
1780-81	199		7	14	

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Bulpham £	Little Burstead £	Chelmsford £	Great Canfield £	Chingford £	Little Clacton £	Canvey £
1781-82			107			11	
1782-83			72			10	25
1783-84			97	37		8	12
1784-85			71	20		6	11
1785-86			74	55		11	14
1786-87			108	33		6	
1787-88			99	45		10	
1788-89			97	59		10	13
1789-90			95	44		13	
1790-91			82	46		11	
1791-92			121	56		11	
1792-93			112	64			
1793-94			101	36			
1794-95			179	23		56	
1795-96			132	34		11	
1796-97			100	35		10	
1797-98			101	44		24	
1798-99			132	35		13	
1799-1800	56		122	18		35	
1800-01	50	27	256	40		12	
1801-02	87	25	111	28		10	
1802-03	55	33	297	14		11	
1803-04	52	19	366	23		14	
1804-05	46	16	267	31		30	
1805-06	66	34	470	39		37	
1806-07	75	32	280	62			
1807-08	77	21	345	30			
1808-09	49	29	140	31			
1809-10	41	38	252	185	117		
1810-11	87	39	486		118		
1811-12	65	42	419	57	110		
1812-13	58	60	402	33	117		

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Bulpham £	Little Burstead £	Chelmsford £	Great Canfield £	Chingford £	Little Clacton £	Canewdon £
1813-14	40	44	493	50	224	54	
1814-15	40	44		38	228	73	
1815-16	35	13		39	108	38	
1816-17	33	66		35	84	32	
1817-18	58	42		36	208	30	
1818-19	46	48		90	65	35	
1819-20	38	34		30	206	21	
1820-21	79	37		61	139	17	
1821-22	52	53		51		11	
1822-23	64	47		85		11	
1823-24	34	57		85		12	
1824-25	41	57		124		18	
1825-26	40	44				22	
1826-27	36	33				10	32
1827-28	37	41				17	111
1828-29	37	42				20	123
1829-30	34	37				20	48
1830-31	30	33				22	52
1831-32	38	30				11	48
1832-33	30	34				21	49

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Gt. Glacton £	Elmstead £	Downham £	Ingatestone £
1767-68	1	9		
1768-69	2	14		
1769-70	7	10		
1770-71	7	13		
1771-72	4	14		
1772-73	5	15		
1773-74	22	15		
1774-75	11	20		
1775-76	7	21		
1776-77	6	40		
1777-78	6	18		
1778-79	29	14		
1779-80	7	23		
1780-81	7	14		
1781-82	6	7		
1782-83	14	14		
1783-84	22	10		
1784-85	19	14		
1785-86	19	21		
1786-87	26	11		
1787-88	3	28		
1788-89	23	17	33	
1789-90	21	20	36	
1790-91	25	28	21	
1791-92	23	24	25	22
1792-93	21	25	18	38
1793-94	41	14	20	48
1794-95	39	24	34	23
1795-96	22		47	35
1796-97	49		57	36
1797-98	36		27	33
1798-99	20		25	46

Year	Great Clacton £	Elm-stead £	Downham £	Ingate-stone £	Great Dunmow £	Hatfield Peverel £	Great Burstead £	East-wood £
1799-1800	10		66	93				
1800-01	50		71	58				
1801-02	20		34	37				
1802-03	25		103	62				
1803-04	26		53	49				
1804-05	45		89	63				
1805-06	20		71	61				
1806-07	55		62	52				
1807-08	43		58	97				
1808-09	35		64	99				
1809-10	65		46	99	42			
1810-11	60		58	50	20			
1811-12	156	25	60	54	75			
1812-13	80	39	138	72	45	75		
1813-14	149	56	95	80	20	90		
1814-15	161	57	83	92	40	95		
1815-16	170	62	79	59	78	109		
1816-17	124	34	102	61	81	166	151	
1817-18	63	33	89	83	47	151	250	
1818-19	66	27	63	91	64	140	284	
1819-20	71	26	54	83	31	80	190	128
1820-21	53	51	44	65	58	57	129	131
1821-22	30	14	56		58	154	138	164
1822-23	18	29	38		122	107	128	99
1823-24	28	29			71	66		132
1824-25	19	36			114	78		118
1825-26	41	36			118	87		75
1826-27	27	37			90	97		98
1827-28	28	33			62	71		62

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Great Clacton £	Elmstead £	Dedham £	Great Dunmow £	Hatfield Peverel £	Eastwood £
1828-29	29	23		97	57	65
1829-30	17	23	66	71	65	55
1830-31	41	75	79	43	116	124
1831-32	32		74	90	78	164
1832-33	69		197	27	121	111
1833-34				27		

	Sible Hedingham £
1750-51	29
1751-52	21
1752-52	27
1753-54	30
1754-55	12
1755-56	5
1756-57	44
1757-58	75
1760-61	19
1761-62	27
1763-64	18

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Hatfield Broad Oak £	Fambridge £	Kelvedon £	Great Leigh £	Leigh £	Ingrave £	Inworth £
1781-82		6					
1782-83		7					
1783-84		5					
1784-85		3					
1785-86		2					
1786-87		7					
1787-88		5					
1788-89		5					
1789-90	102	6					
1790-91	116	15					
1791-92	91	24					
1792-93	101	76					
1793-94	94	79					
1794-95	93	38					
1795-96	113	36				27	
1796-97	106	35				13	
1797-98	110					15	
1798-99	103	60				20	
1799-1800	121	59				16	
1800-01	118	43				15	
1801-02	108	32			126	14	
1802-03	95	30	47		68	18	
1803-04	131	65	46	8	108	13	
1804-05	123	48	43	6	72	10	
1805-06	125	48	60	9	121	14	
1806-07	143	33	62	24	107	14	
1807-08	127	60	74	12		15	
1808-09	144	51	74	12			
1809-10	191	60	65	63			
1810-11	174	41	87	46			
1811-12	190	35	107	30			

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Hatfield Broad Oak £	Fam-bridge £	Kelvedon £	Great Leigh £	Inworth £
1812-13	224	46	101	46	
1813-14	213	39	68	38	
1814-15	233	41	67	31	
1815-16	221	39	61	50	
1816-17	219	58	68	33	
1817-18	218	55	78	10	
1818-19	223	68	60	37	
1819-20	243	65	49	22	
1820-21	190	43	105	12	24
1821-22	173	57	46	24	23
1822-23	198	63		12	23
1823-24	183	66		10	25
1824-25	268			24	22
1825-26	296			16	23
1826-27	207			33	22
1827-28	210			10	21
1828-29	196			14	24
1829-30	199			9	22
1830-31	203			11	29
1831-32	92			16	14
1832-33	129			11	14

ESSEX PARISH SURVEYORS ACCOUNTS

Year	White Notley £	Black Notley £	Little Leighs £	Chatley £
1750-51	13			
1751-52	20			
1752-53	25			
1753-54	11			
1754-55	20			
1756-57	22			
1757-58	17			
1758-59	21	24		
1759-60	14	18		
1760-61	15	20		
1761-62	12	12		
1762-63	22	17		
1763-64	19	5		
1764-65	17	17		
1765-66	16	21		
1766-67	12	11		
1767-68	16	6		
1768-69	27	19		
1769-70	28	22		
1770-71	12	13		
1771-72	9	15		
1772-73	18	28	27	
1773-74	12	34	74	17
1774-75		19	37	65
1775-76		24	21	27
1776-77		10	5	31
1777-78		23	13	26
1778-79		21	8	17
1779-80		17	5	18
1780-81		26	9	28

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Little Leighs £	Chatley £	Black Notley £	Mundon £	Great Oakley £	Leigh £	Great Leigh £
1781-82	4	18	18				
1782-83		26	43				
1783-84		16	24				
1784-85		13	37				
1785-86		5	53				
1786-87		3	49				
1787-88	3	8	54				
1788-89	3	5	71				
1789-90	8	5	58				
1790-91	3	7	41				
1791-92	15	7	38				
1792-93	3	16	21				
1793-94	3	12	44				
1794-95	5	21	55				
1795-96	2	20	42				
1796-97	2	19	36				
1797-98	2	17	34	47			
1798-99	2	11	35	46	34		
1799-1800	10	27	46	32	39		
1800-01	7	26	51	51	38		
1801-02	10	24	60	53	40	126	
1802-03	22	32	67	19		68	
1803-04	20	80	68	43		108	7
1804-05	22	38	88	44		72	5
1805-06	23	107	48	17		123	9
1806-07	16	63	47	32		112	24
1807-08	16	45	62	59			13
1808-09	38	109	65	33			14

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Lindsell £	Great Leigh £	Mundon £	Chatley £	Great Oakley £	Black Notley £	Moreton £	North Okenden £
1809-10		63	52	39	82	83		
1810-11		38	34	44	98	59		
1811-12		27	42	47	54	94		
1812-13		46	28	47	106	91		
1813-14		38	42	32	164	181		
1814-15		31	53	62	164	107		
1815-16		50	43	181	151			
1816-17		33	34	164	105			
1817-18		10	37	73	137			
1818-19		37	51	158	180			
1819-20		12	41	68	199			
1820-21		14	28	109	152			
1821-22		12	82	92				
1822-23	17	12	161	42				
1823-24	7	10	36	206	87			
1824-25	12	17	43	73	67			
1825-26	12	31	35	152	65			
1826-27	12	16	34	97	44			
1827-28	16	33	44	51	52		56	
1828-29	20	11	36	41	54		44	231
1829-30	10	15	49	32	72		38	31
1830-31	53	8	27	46	74		47	21
1831-32	71	12	46	60	74		35	47
1832-33	67	16	28	52	55		32	35
1833-34	61	12	29	49	54		24	66
1834-35		11	26	24	44		30	94
1835-36		9	25	28	44		25	29
1836-37		6					36	41
1837-38		6					28	33
1838-39								43
1839-40								40

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Rawrech £	Rettenden £	Peldon £	Ramsey £	Rayleigh £	Banners Roothing £
1768-69	25					
1769-70	25	45				
1770-71	32	16				
1771-72	26	17				
1772-73	44	13				
1773-74	53	32				
1774-75	27	40				
1775-76	43	36				
1776-77	29	21	20			
1777-78	31	37	8			
1778-79	23	47	21			
1779-80	56	18	17			
1780-81	49	46	5			
1781-82	43	28	8			
1782-83	27	59	9			
1783-84	53	88	23			
1784-85	44	64	1			
1785-86	47	70	8	121	44	
1786-87	54	114	10	15	83	
1787-88	61	79	13	20	51	
1788-89	49	89	18	36	37	
1789-90	71	104	34	33	102	
1790-91	198	292	19	16	224	
1791-92	182	88	40	18	104	
1792-93	201	161	31	17	60	
1793-94	200	85	92	24	173	
1794-95	139	55	61	14	213	
1795-96	170	44	21	20	378	13
1796-97	73	43	28	17	383	58
1797-98	69		22	32	257	15
1798-99	94		32	21	181	19

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Rawrech £	Prittlewell £	Pitsea £	Ramsey £	Banners Roothing £	Rayleigh £	T £	Royden £
1799-1800	128			14		171		
1800-01	110			33	17	141		
1801-02	91			21	26	242		
1802-03	119		5	26		113		
1803-04	252		5	44		139		
1804-05	172		152	25	19	137		
1805-06	186		109	28	6	145		
1806-07	158		65	17	5	110		
1807-08	72		80	17	6	144		
1808-09	57		95	30	16	123		
1809-10	154		122	23	10	78		
1810-11	75		166	12	8	100		
1811-12	55		155	66	32	163		
1812-13	90		196	17	5	152		
1813-14	182		181	17	31	110		
1814-15	205		162	16	96			
1815-16	215	186	93	31	8			
1816-17	199	189	76	14	50			
1817-18	274	265		5	34			
1818-19	181	150			51		63	51
1819-20	119	133			28		52	30
1820-21	132	119			31		23	30
1821-22	112	67			55		52	20
1822-23	55	106			24		31	29
1823-24	70	106		Roxwell	26		36	102
1824-25	127	122		228	23		29	41
1825-26	96	129		215	8		38	52
1826-27	79	113		168	15		15	29
1827-28	77	119	Chipping	235	22		39	33
1828-29		115	Ongar	179	25		35	16
1829-30		172	39	160	19		33	34
1830-31		171	77	135	16		14	9
1831-32		138	61	141	13		19	47

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Chipping Ongar £	Prittlewell £	Banners Roothing £	Royden £	T £	Roxwell £
1832-33	60	118	16	24	39	108
1833-34	32	100	21	25	40	162
1834-35	34	99	7	30	54	93
1835-36	74	108	6		27	
1836-37	70	172				
1837-38	53	47				
1838-39	64	91				
1839-40	61	55				

Year	St. Osyth £	Sandon £	Southminster £	Stambourne £	Great Sompford £
1750-51	3				
1754-55	12				
1755-56	5				
1756-57	16				
1757-58	3				
1758-59	6				
1759-60	7				
1760-61	9				
1761-62	4				
1762-63	9				
1763-64	4	9			
1764-65	6	14			
1765-66	7	10			
1766-67	6	7			
1767-68	9	12			
1768-69	23				
1769-70	20	10			
1770-71	14	10			
1771-72	13				
1772-73	8				
1773-74	30		55		
1774-75	25		64		
1775-76	44		33	13	
1776-77	31	10	34		
1777-78	9	8	22	19	
1778-79	28		35	5	
1779-80	48		15	8	
1780-81			59	5	
1781-82				10	

Year	Southminster £	Sandon £	Stambourne £	Aythorpe Roothing £	Great Sompford £	St. Osyth £
1783-84		24				
1784-85		11				
1785-86		17	8			
1786-87		36	24			
1787-88	181	25	8			
1788-89	135	31	29			
1789-90	182	40				
1790-91	142	51	27			
1791-92	172	72	4	15		
1792-93	100	61	20	22		
1793-94	208	53	8	22		
1794-95	153	81	7	22		
1795-96	120	114		24	44	
1796-97	232	100	11	20	33	
1797-98	157	49	5	17	23	
1798-99		49	6	18	43	
1799-1800		51	4	17	50	
1800-01		53	4	22	52	49
1801-02		38	4	35	23	29
1802-03		84	4	16	30	18
1803-04		62	6	20	118	23
1804-05		69	14	27	46	76
1805-06		66	7	25	45	25
1806-07		54	4	12	56	96
1807-08		64	5	13	59	45
1808-09		53	44	56	36	43
1809-10		61	42	56	48	51
1810-11		80	15	19	64	44
1811-12		59		24	32	25
1812-13		115		35	59	32
1813-14		94	54	61	82	38
1814-15		94	65	28	94	53
1815-16		169	54	85	85	87

Year	Little Sompford £	
1805-06	198	
1806-07	214	
1807-08	173	
1808-09	150	
1809-10	213	
1810-11	191	
1811-12	131	
1812-13	779	
1813-14	305	
1814-15	304	
1815-16	337	

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Aysthorpe Roothing £	Gt. Sompford £	St. Osyth £	Sandon £	Little Sompford £	Stambourne £
1816-17	98	104	86	74	191	
1817-18	65	132	83	176	172	
1818-19	68	203	153	121	112	
1819-20	40	83	214	77	88	
1820-21	28	23	208	107	68	
1821-22	37	86	129	116	48	
1822-23	31	93	113	98	33	
1823-24	38	112	43	66	47	
1824-25	59	128	51	97	80	
1825-26	78	107	79	62	134	
1826-27	55	93		60	46	
1827-28	49	49		70	29	
1828-29	85	107		75	46	
1829-30	50	77		51	23	
1830-31	66	71			13	
1831-32	56	106			25	
1832-33	48	63			59	
1833-34	55	72			94	
1834-35	59	133				

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Tolleshunt Major £	Tolleshunt D'Arcy £	Thaxted £	Terling £	Thunders-ley £	Thorpe le Soken £	Stanford Rivers £
1751-52		4					
1752-53		2					
1753-54		2					
1758-59		2					
1759-60		3			4		
1760-61		3			4		
1762-62		3			14		
1762-63		3			9		
1763-64		4		31	13		
1764-65		6		12	14		
1765-66		3		12	11		
1766-67		5		18	11		
1766-67			87				
1767-68	1	3	92	24	7	19	
1768-69	4	13	93	28	8	54	
1769-70	5	11	99	29	7	55	
1770-71	6	8	135	16	23	50	
1771-72	16	15	92	23	15	44	
1772-73	5	10	111	28	9	86	21
1773-74	8	18	119	16	12	55	20
1774-75	8	15	139	18	11	42	16
1775-76	9	14	107	28	11	31	31
1776-77	7	18	106	14	13	29	28
1777-78	8	6	95	14	7	15	15
1778-79	9	14	90	12	13	11	27
1779-80	9	20	102	12	14		30
1780-81	10		108	20	13		31
1781-82	10		76	15	13		21
1782-83	9		93	18	22		31
1783-84	11		94	14	51		34
1784-85	4		76	12	38		26

Essex Parish Surveyors Accounts

Year	Tolleshunt Major £	Thaxted £	Terling £	Thundersley £	Thorpe le Soken £	Stanford Rivers £
1785-86	8	95	13	27		33
1786-87	15	101	9	29		30
1787-88	12	134	7	34		31
1788-89	8	125	8	224		37
1789-90	13	139	16	212		39
1790-91	13	104	40	42		43
1791-92	12	105	39	41		28
1792-93	19	174	31	31	174	58
1793-94	11	133	29	76	200	38
1794-95	18	142	31	47	130	48
1795-96	21	177	27	77	54	72
1796-97	11	138	32	32	60	13
1797-98	14	128	33		54	94
1798-99	14	150	48		54	79
1799-1800	28	153	28		67	59
1800-01	12	164	27		53	59
1801-02	38	150	36		31	88
1802-03	24	126	41		90	98
1803-04	32	91	33		155	83
1804-05	35	110	34		133	100
1805-06	62	165	53		141	94
1806-07	65	192	52		144	84
1807-08	95	187	44		118	113
1808-09	62	171			272	128
1809-10	46	140	25		46	234
1810-11	34	146	21		294	137
1811-12	47	189	42		111	140
1812-13	39	175	36			143
1813-14		173	61			109
1814-15		169	42			125
1815-16		159				119

Year	Theydon Gornon £
1809-10	94
1810-11	56
1811-12	53
1812-13	70
1813-14	77
1814-15	88
1815-16	87

ESSEX PARISH SURVEYORS ACCOUNTS

Year	West Tilbury £	Stanford Rivers £	Thaxted £	Tilbury Clare £	Theydon Gornon £	Thornington £
1816-17		197	119		60	
1817-18		158	141		68	
1818-19		138	128		118	
1819-20		223	131		92	
1820-21		102	135		92	
1821-22		64	123		102	
1822-23		130	198		75	
1823-24		85	188	32	80	11
1824-25		136	164	59	76	12
1825-26	12	139	231	59	66	10
1826-27	14	111		55	64	10
1827-28	27	109		51	45	27
1828-29	35	96		47	49	11
1829-30	21	174		43	80	15
1830-31	25	149		21	83	19
1831-32	23	144			67	14
1832-33	16	126			96	16
1833-34	13	128			78	16
1834-35	20	91			96	
1835-36	18	84				

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Little Wakering £	Tollhurst D'Arcy £	Upminster £	Toppesfield £
1752-53		4		
1753-54		2		
1754-55		2		
1755-56		2		
1756-57		2		
1757-58		2		
1758-59		3		
1759-60		3		
1760-61		3		
1761-62		5		
1762-63		4		
1763-64		5		
1764-65		5		
1765-66		4		
1766-67		7		
1767-68		4		
1768-69		5		
1769-70		13		
1770-71		11		
1771-72		23		
1772-73		16		
1773-74		18		
1774-75		14		
1775-76	6	14		
1776-77	3	18		
1777-78	9	6		
1778-79	6	14		
1779-80	6	20		
1780-81	6	9		
1781-82	13	11		
1782-83	4	34		

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Little Wakering £	Tollehurst D'Arcy £	Upminster £	Toppesfield £
1783-84	6	16		
1784-85	14	16		
1785-86	6	23		
1786-87	6	17		
1787-88	7	22		
1788-89	5	25		
1789-90	10	33	111	
1790-91	14	20	72	86
1791-92	2	16	48	72
1792-93	20	29	37	105
1793-94	37	23	93	89
1794-95	15	29	51	75
1795-96	21	20	38	99
1796-97	18	46	47	118
1797-98	83	17	83	72
1798-99	30	25	50	82
1799-1800	20	29	147	76
1800-01	8	26	134	72
1801-02	8	27	211	81
1802-03	8	53	165	55
1803-04	27	29	91	67
1804-05	17	37	144	105
1805-06	12	28	91	102
1806-07	12	41	119	172
1807-08	12	89	124	119
1808-09	14	70	166	120
1809-10	14	68	97	117
1810-11	27	65		112
1811-12	27	99		141
1812-13	26	133		175
1813-14	32	62		146

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Little Wakering £	Tollehurst D'Arcy £	Upminster £	Toppesfield £	Gt. Waltham £
1814-15	31	56		167	249
1815-16		137		227	398
1816-17	18	93		217	274
1817-18	14	97	157	264	321
1818-19	15	99	135	282	349
1819-20	9	97	80	124	344
1820-21		45	80	150	283
1821-22		87	84	144	272
1822-23		60	72	168	
1823-24		60	97	126	
1824-25		55	84	46	
1825-26		78	95	103	
1826-27		68	364	188	
1827-28		52	172	51	
1828-29		43	74	55	
1829-30		47	115	50	
1830-31		43	173	55	
1831-32			125	55	
1832-33		21	106	56	
1833-34		19	60		
1834-35		24			

Year	Wennington £	Wethersfield £	Woodham Mortimer £	Wickham Bishops £	Wicken Bonhurst £
1770-71	1		4		
1771-72	2		3		
1772-73	2		4		
1773-74	3		9		
1774-75	5		6		
1775-76	6	110	13		
1776-77	2	69	27		
1777-78	6	81	28		
1778-79	3	51	27		
1779-80	4	65	28		
1780-81	4	59	38		
1781-82	3	48	27		
1782-83	2	48	33		
1783-84	1	47	14		
1784-85	6	43	19		
1785-86	3	38	14		
1786-87	3	56	15		
1787-88	3	59	16		
1788-89	2	68	13		
1789-90	6	137	15		
1790-91	2	73	21		
1791-92	4	64	29	31	
1792-93	4	113	21		
1793-94	4	57	21		
1794-95	6	129	25		
1795-96	2	86	21		
1796-97	4		12		
1797-98	4		28		25
1798-99	8		21		16
1799-1800	9		30		14
1800-01	3		52		10

Year	Wicken Bonhurst £	Wennington £	Writtle £	Woodham Mortimer £	Great Wigborough £	Witham £
1801-02	10	2	62	45		
1802-03	8	12	76	32		
1803-04	8	1	48	32		
1804-05	14	2	110	19		
1805-06	11	4	66	72	44	
1806-07	11	4	44	42	31	
1807-08	15	3	71	46	24	
1808-09	6	3	74	46	43	
1809-10	6	2	140	58	34	
1810-11	14	5	85	28	94	
1811-12	12	12	96	54	122	
1812-13	44	8	119	50	82	
1813-14	12	8	230	84	64	
1814-15	16	7	165	72	40	
1815-16	44	14	142	87	36	
1816-17	34	24	146	62	39	227
1817-18	46	7	267	62	47	214
1818-19	58	32	326	76	47	132
1819-20	34	17	180	42	40	123
1820-21	34	5	146	41	31	192
1821-22	25	2	238	49	32	201
1822-23	25	7	131	28	34	385
1823-24	32	13	131	28	33	305
1824-25	26	15	99	37	45	203
1825-26	33	8	156	34	35	
1826-27	24	13	105	31	32	
1827-28	28	13	70	32	22	
1828-29	20	14	135	38	32	
1829-30	28	10	33	40	32	
1830-31	23	10	47	36	31	
1831-32	13	14		51	29	

ESSEX PARISH SURVEYORS ACCOUNTS

Year	Wicken Bonhurst £	Wennington £	Writtle £	Woodham Mortimer £	Great Wigborough £	Witham £
1832-33	20	14		17	31	
1833-34	15	28		36	19	
1834-35	12	9		18	23	
1835-36	11	14		19	17	
1836-37		15		12	19	
1837-38		16				

Year	South Weald £	Wormingford £	Wivenhoe £	Woodham Walter £
1771-72	43			
1772-73	18			
1773-74	29			
1774-75	16			
1776-77	19			
1777-78	19			
1778-79	22			
1779-80	23			
1780-81	20			
1781-82	21			
1782-83	27			
1783-84	30			
1784-85	61			
1785-86	47			
1786-87	24			
1787-88	25			
1788-89	39			
1789-90	36			
1790-91	32	34		
1791-92	105	45		
1792-93	107	39		
1793-94	41	28	14	

ESSEX PARISH SURVEYORS ACCOUNTS

Year	South Weald £	Wormingford £	Wivenhoe £	Woodham Walter £
1794-95	39	25		
1795-96	32	25		
1796-97	73	53		
1797-98	83	25		
1798-99	71	17		
1799-1800	91	16		
1800-01	99	71		
1801-02		35	18	
1802-03		41	37	
1803-04		19	34	26
1804-05		37	40	22
1805-06		15	29	58
1806-07		54	21	81
1807-08		57	19	72
1808-09		45	24	142
1809-10			14	99
1810-11				57
1811-12				61
1812-13				105
1813-14				49
1814-15				42
1815-16				79
1816-17				61
1817-18				61
1818-19				64
1819-20				34
1820-21				24
1821-22				33
1822-23				35
1823-24				39
1824-25				38

Woodham Walter

Year	£
1825-26	26
1826-27	18
1827-28	46
1828-29	47
1829-30	38
1830-31	60
1831-32	73
1832-33	44
1833-34	38
1834-35	35
1836-37	23

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

District	Date	Ref.
Aldenham	1752-1828	D.P.3/21/1,2
Anstey	1830-59	D.P.5/21/1
Ayot St. Lawrence	1771-1806	D.P.10/21/1
Ayot St. Peter	1782-1853	D.P.11/21/1
Barley	1790-91 1795-98	D.P.14/8/2
Lt. Berkhampstead	1806-37	D.P.20/21/1
Bramfield	1831-63	D.P.22/21/1
Hoddesdon	1825-41	D.P.24A/21/1
Cheshunt	1784-95	D.P.29/21/1
Clothall	1775-79 1793-1819	D.P.30/21/2
Digswell	1788-1857	D.P.34/21/1,2
Eastwick	1772-1812	D.P.35/21/1
Essendon	1813-48	D.P.37/21/1-25
Bayford	1829-32	D.P.37A/21/1
Much Hadham	1774-1846	D.P.44/21/1,2
Hemel Hempstead	1782-1836	D.P.47/21/1,2
Hitchin	1751-1818	D.P.53/21/2-7
Norton	1821-36	D.P.75/21/1,2
Royston	1805-68	D.P.87/21/1
Sacombe	1792-99	D.P.89/21/1
St. Albans St. Stephen	1790-1836	D.P.94/21/1,2
Ware	1767-1808	D.P.116/21/1
Harpenden	1744-87 1821-36	D.P.122/21/1,2

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Aldenham £	Anstey	Ayot St. Lawrence £	Ayot St. Peter	Barley	Barnet
1750-51	14					
1751-52	14					
1752-53	8					
1753-54	6					
1754-55	7					
1755-56	12					
1756-57	11					
1757-58	7					
1758-59	14					
1759-60	6					
1760-61	15					
1761-62	14					
1762-63	15					
1763-64	14					
1764-65	31					
1765-66	32					
1766-67	15					
1767-68	38					
1768-69	41					
1769-70	25					
1770-71	35					
1771-72	41					
1772-73	54					
1773-74	43					
1774-75	26		5			
1775-76	23					
1776-77	40		4			
1777-78	32		4			
1778-79	27					
1779-80	34		3			

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Aldenham £	Anstey £	Ayot St. Lawrence £	Ayot St. Peter £	Barley £	Barnet £
1780-81	38		4			
1781-82	44		2			
1782-83	48		4	3		
1783-84	41		4	5		
1784-85	49		4	6		
1785-86	43		4	6		
1786-87	58		3	4		
1787-88	49		3	7		
1788-89	44		3	5	31	
1789-90	136		3	4	24	
1790-91	69		3	5	24	
1791-92	114		4	4	53	
1792-93	80		2	5	38	
1793-94	44		2	5	62	
1794-95	51			4	89	
1795-96	62			11	86	
1796-97	58			5	87	
1797-98	64		2	5	53	
1798-99	70		8	5	53	
1799-1800	78		3	5	49	
1800-01	85		4	12		
1801-02	80		3	6		
1802-03	118		5	5		
1803-04	140			13		
1804-05	132		3	4		
1805-06	88			6		
1806-07	165			19		
1807-08	122			12		
1808-09	75			19		
1809-10	184			11		
1810-11	150			9		

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Aldenham £	Anstey £	Ayot St. Lawrence £	Ayot St. Peter £	Barley £	Barnet £
1811-12	127			9		
1812-13	157			19		
1813-14	151			34		
1814-15	150			12		
1815-16	129			56		
1816-17	163			32		
1817-18	103			26		
1818-19	144			21		
1819-20	155			23		
1820-21	158			27		
1821-22	137			23		
1822-23	119			22		
1823-24	224			22		
1824-25	173			20		
1825-26	224			21		
1826-27	213			28		
1827-28	215			22		
1828-29				26		
1829-30			25	23		
1830-31			33	23		
1831-32			90	22		
1832-33			19	25		
1833-34			20	21		
1834-35			14	10		
1835-36			44	26		

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Little Berkhampstead £	Bramfield £	Hoddesdon £	Cheshunt £	Clochall £	Digswell £	Eastwick £
1771-72							5
1772-73							7
1773-74							5
1774-75							6
1775-76							11
1776-77							14
1777-78							4
1778-79							9
1779-80							9
1780-81							19
1781-82							9
1782-83							8
1783-84				43			13
1784-85				26			8
1785-86				38			6
1786-87				55			6
1787-88				60			14
1788-89				41		8	14
1789-90				58		14	10
1790-91				51		7	10
1791-92				31		9	7
1792-93						7	11
1793-94					50	5	7
1794-95					42	5	11
1795-96					20	8	7
1796-97					7	2	7
1797-98					9	13	8
1798-99					32	17	10
1799-1800					36	10	9
1800-01					14	11	10
1801-02					10	8	9
1802-03					5	5	5
1803-04					4	4	10

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Little Berkhampstead £	Bramfield £	Hoddesdon £	Cheshunt £	Clochall £	Digs-well £	East-wick £
1804-05					5	6	8
1805-06					8	6	5
1806-07	23				13	6	3
1807-08	17				7	18	5
1808-09	25				45	14	7
1809-10	32				22	24	7
1810-11	28				17	47	9
1811-12	17				21	7	5
1812-13	24				53	29	
1813-14	34				25	16	
1814-15	26				25	24	
1815-16	111				89	17	
1816-17	48				102	30	
1817-18	46				95	31	
1818-19	42					36	
1819-20	39					25	
1820-21	34					32	
1821-22	49					32	
1822-23	41					34	
1823-24	49					40	
1824-25	50					35	
1825-26	26		152			26	
1826-27	29		210			28	
1827-28	39		54			28	
1828-29	71					32	
1829-30	61		185			32	
1830-31	38		115			40	
1831-32	103	32	112			30	
1832-33	35	34	169			54	
1833-34	68	10	165			60	
1834-35	60	40	110			34	
1835-36	51	7	110			50	

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Essenden £	Bayford £	Much Hadham £	Hemel Hempstead £	Hitchen £	Norton £	Royston £
1750-51					39		
1751-52					58		
1752-53					60		
1753-54					51		
1754-55					31		
1755-56					68		
1756-57					63		
1757-58					73		
1758-59					84		
1759-60					65		
1760-61					63		
1761-62					57		
1762-63					57		
1763-64					72		
1764-65					92		
1765-66					92		
1766-67					144		
1767-68					120		
1768-69					115		
1769-70					120		
1770-71					46		
1771-72					90		
1772-73					59		
1773-74					36		
1774-75			25				
1775-76			39		52		
1776-77			44		74		
1777-78			29		120		
1778-79			45		111		
1779-80			33		67		
1780-81			35		57		

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Essenden £	Bayford £	Much Hadham £	Hemel Hempstead £	Hitchen £	Norton £	Royston £
1781-82			27		88		
1782-83			29	117	65		
1783-84			45	115	35		
1784-85			26	131	43		
1785-86			69	92	27		
1786-87			34	141	31		
1787-88			40	133	136		
1788-89			37	121	110		
1789-90			52	106	169		
1790-91			50	125	93		
1791-92			39	121	129		
1792-93			55	116	74		
1793-94			37	149	86		
1794-95			55	152	138		
1795-96			48	153	100		
1796-97			33	87	112		
1797-98			49	127	54		
1798-99			58	160	77		
1799-1800			50	175	137		
1800-01			58	221	99		
1801-02			60	121	188		
1802-03			39	178	182		
1803-04			56	182	182		
1804-05			70	224	157		26
1805-06			88	303	187		24
1806-07			71	125	226		b20
1807-08			52	309	145		23
1808-09			65	274	113		20
1809-10			59	270	231		43
1810-11			77	140	307		13
1811-12			94	116	250		24
1812-13			81	137	208		25

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Essenden £	Bayford £	Much Hadham £	Hemel Hempstead £	Hitchin £	Norton £	Royston £
1813-14	44		86	376	297		17
1814-15	88		119	270	469		31
1815-16	61		92	329	421		24
1816-17	68		157	293	271		32
1817-18	81		58	235			38
1818-19	55		59	239			28
1819-20			170	325			47
1820-21			96	242			35
1821-22			47	236		32	24
1822-23			36	234		40	27
1823-24			111	257		53	34
1824-25			109	255		59	52
1825-26			167	266		56	30
1826-27			208	221		38	35
1827-28			176	338		37	40
1828-29			302	224		50	25
1829-30			264	280		29	16
1830-31			397	262		54	20
1831-32			683	245		45	
1832-33			375	218		69	20
1833-34			140	188		65	16
1834-35			130	180		52	34
1835-36			72	167			

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Sacombe £	St. Albans St. Stephen £	Ware £	Harpenden £
1750-51				3
1751-52				6
1752-53				3
1753-54				4
1754-55				3
1755-56				3
1756-57				6
1757-58				19
1758-59				16
1759-60				27
1760-61				24
1761-62				15
1762-63				40
1763-64				46
1764-65				17
1765-66				12
1766-67				37
1767-68			64	73
1768-69			29	47
1769-70			39	29
1770-71			41	20
1771-72			49	12
1772-73			33	21
1773-74			59	10
1774-75			36	
1775-76			40	
1776-77			25	38
1777-78			30	20
1778-79			31	13
1779-80			20	12
1780-81			22	12
1781-82			32	10
1782-83			66	6

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Sacombe £	St. Albans St. Stephen £	Ware £	Harpenden £
1783-84			38	6
1784-85			30	9
1785-86			62	15
1786-87			50	
1787-88			51	
1788-89			60	
1789-90			50	
1790-91		139	49	
1791-92		136	46	
1792-93	8	135	31	
1793-94	6	76	48	
1794-95	10	91	115	
1795-96	6	131	117	
1706-07	6	200	53	
1797-98	14	99	84	
1798-99	11	91	43	
1799-1800	9	92	58	
1800-01	12	82	64	
1801-02	11	97	48	
1802-03	10	93	107	
1803-04	8	77	88	
1804-05		143		
1805-06		196	114	
1806-07		112	59	
1807-08	13	171		
1808-09	16	129		
1809-10	10	130		
1810-11	17	136		
1811-12	11	192		
1812-13	14	220		
1813-14	16	248		
1814-15	24	246		
1815-16		136		

HERTFORDSHIRE PARISH SURVEYORS ACCOUNTS

Year	Sacombe £	St. Albans St. Stephen £	Ware £	Harpenden £
1816-17		144		
1817-18		159		
1818-19		218		
1819-20		261		
1820-21		303		
1821-22		176		
1822-23		248		
1823-24		190		
1824-25		232		
1825-26		326		
1826-27		170		
1827-28		189		
1828-29		177		
1829-30		213		
1830-31		165		
1831-32		182		
1832-33		164		
1833-34		124		
1834-35		205		
1835-36		54		

NORTHANTS. PARISH SURVEYORS ACCOUNTS

Parish	Date	Ref.
Abington	1730-1840	Incumbent
Little Addington	1809-1813	V.9
Arthingworth	1787-1829	11.A.4,13
Little Billing	1774-1829	45. 11A 4V
Bradden	1745-1803	11A 4V G1427
Brigstock	1800-1836	11 + V. 53,46,54,62
Great Brington	1809-1836	135D
Cottingham	1771-1835	167-171
Crick	1750-1840	118C.K.
Denton	1785-1845	113 11A, 4V
Easton O. H.	1803-1824	V321
East Farndon	1808-1836	30
Flore	1785-1804	29, 11A 4V
Grafton Underwood	1818-1828	2, 9
Green Norton	1806-1836	V38
Hardwick	1741-1845	6, 11A, 4, ii
Harlestone	1764-1818	104, 11A, 4, ii
Holcot	1778-1838	59, 2A, 4, iii
Moulton	1774-1822	123
Oundle	1814-35	241, 2A, 4V
Wold or Old	1780-1836	104, 2A, 4V
Passenham	1773-1808	257, 11A, 4V
Pattishall	1799-1810	110
Pilton	1773-1811	8, 11A, 4V
Pitsford	1781-1819	34, 11A, 4V
Rushden	1785-1819	V, 11A, 4, 7,5
Slapton	1766-1810	11A, 4V
Stanion	1770-1806	38
Stanwick	1824-1863	87
Stoke Albany	1781-1814	20
Woodford	1782-1812	54, 56
Yelvertoft	1784-1827	V1

NORTHANTS. PARISH SURVEYORS ACCOUNTS

Year	Cottingham £	Bradden £	Crick £	Harlestone £	Arthingworth £
1750-51		3	5		
1751052		3	19		
1752-53		5	14		
1753-54		4	16		
1754-55		3	8		
1755-56		3	11		
1756-57		7	11		
1757-58		7	10		
1758-59		8	5		
1759-60		5	6		
1760-61		3	8		
1762-62		6	9		
1762-63		4	5		
1763-64		23	8		
1764-65		10	6		
1765-66		8	11		
1766-67		11	12		
1767-68		3	12		
1768-69		3	18		
1769-70		5	15		
1770-71	5	3	11	2	
1771-72	10	2	16	2	
1772-73	10	2	17	2	
1773-74	10	6	10	5	
1774-75	20	6	20	3	
1775-76	20	7	3	3	
1776-77	47	2	14	4	
1777-78	24	5	36	3	
1778-79	32	18	42	4	
1779-80	21	5	47	3	
1780-81	15	7	46	2	
1781-82	11	6	39	3	

NORTHANTS. PARISH SURVEYORS ACCOUNTS

Year	Cottingham £	Bradden £	Crick £	Harlestone £	Arthingworth £	Denton £	Great Brington £
1782-83	26	7	35	12			
1783-84	28	6	21	8			
1784-85	26	7	27	6			
1785-86	43	14	21	7		12	
1786-87	35	12	16	10		6	10
1787-88	24	10	38	5		19	10
1788-89	40	10	42	10		2	16
1789-90	17	11	24	10		7	
1790-91	23	4	36	10		5	
1791-92	20	11	31	12		2	16
1792-93	51	11	59	12		21	24
1793-94		12	42	19		4	12
1794-95	21	5	19	19		25	14
1795-96	16	11	19	20		6	10
1796-97	17	11	36	12		33	10
1797-98	20	12	76	20		23	12
1798-99	15	8	50	13		37	14
1799-1800	20	17	74	4		36	4
1800-01	15	18	66	12		42	11
1801-02	7	15	31	18		18	2
1802-03	10	7	40	22		17	3
1803-04	14	12	32	12		10	
1804-05	11		34	23		10	
1805-06	11		72	24		38	12
1806-07	11		53	33		51	30
1807-08	10		61	16		42	23
1808-09	12		44	15		26	31
1809-10	9		39	13		25	28
1810-11	8		57	12		8	27
1811-12	10		49	18		33	36
1812-13	11		70	21		57	59
1813-14	11		73	20		48	38

105
73
75
109
116

NORTHANTS. PARISH SURVEYORS ACCOUNTS

Year	Cottingham £	Great Brington £	Arthingworth £	Denton £	Harlestone £
1814-15	23	241	43	35	25
1815-16	12	276	37	43	35
1816-17	20	126	25	32	31
1817-18	22	135	31	26	53
1818-19	24	146	42		28
1819-20	18	126	29		28
1820-21	23	122	46		56
1821-22	15	126	48		20
1822-23	18	111	45		61
1823-24	18	129	49		63
1824-25	36	89	53		69
1825-26	17	151	46		92
1826-27	21	167	36		22
1827-28	21	184	24		32
1828-29	23	110	24		27
1829-30	29	269			33
1830-31	20	116			46
1831-32	23	98			33
1832-33	27	89			19
1833-34	25	107			43
1834-35	27	76			50
1835-36					21

NORTHANTS PARISH SURVEYORS ACCOUNTS

Year	Middleton with Cottingham £	Moulton £	Passenham £	Wold £	Pitsford £	Easton £
1770-71	17					
1771-72	7					
1772-73	22					
1773-74	10		12			
1774-75	28	45	20			
1775-76	19	109	12			
1776-77	13	26	10			
1777-78	19		9			
1778-79	21		19			
1779-80	18		6			
1780-81	25		11			
1781-82	25	48	14		5	
1782-83	32		6	41		
1783-84	29		8	23	3	
1784-85	22	25	17	42	3	
1785-86	23	20	11	34	2	
1786-87	19	8	15	43		
1787-88	25	12	15	48	3	
1788-89	32	15	6		7	
1789-90	30	16	10			
1790-91	14	54	10		8	
1791-92	25	26	11		3	
1792-93	19	16	11	51	8	
1793-94	10	20	13	37	22	
1794-95	4	34	11	33	2	
1795-96		37	14	33	21	
1796-97		22	47	34	4	
1797-98		35	12	40		
1798-99		33	17	43	9	
1799-1800		49	5	41	10	
1800-01		14	12	54	10	

Year	East Farndon	Easton	Wold	Moulton	Pitsford	Passenham
	£	£	£	£	£	£
1801-02			39	19	10	12
1802-03		6	42	50	6	29
1803-04		5	39	20	4	16
1804-05		6	43	40	3	20
1805-06		7	47	21	4	21
1806-07		10	41	20	5	
1807-08		10	40	43	5	
1808-09	49	6	44	51	6	
1809-10	42	17	61	40	11	
1810-11	53	13	42	27	5	
1811-12	47	15	42	26	9	
1812-13	49	15	75	68	12	
1813-14	51	20	61	80	13	
1814-15	44	15	68	70	23	
1815-16	43	11	56	61	15	
1816-17	43	16	64	59	22	
1817-18	44	12	101	80	45	
1818-19	45	49	83	144	103	
1819-20	44	76	63	66		
1820-21	61	89	55	90		
1821-22	69	74	44	71		
1822-23	86	60	66			
1823-24	70	72	120			
1824-25	73		116			
1825-26	90		92			
1826-27	86		106			
1827-28	68		57			
1828-29	63		67			
1829-30	63		49			
1830-31	69		64			
1831-32	50		57			
1832-33	40		57			
1833-34	73		45			
1834-35	29					
1835-36	67					

NORTHANTS. PARISH SURVEYORS ACCOUNTS

Year	Woodford	Stoke Albany	Stanion	Yelvertoft
	£	£	£	£
1772-73			3	
1773-74			3	
1774-75			4	
1775-76			7	
1777-78			6	
1778-79			8	
1779-80			7	
1780-81			7	
1781-82		8	7	
1782-83	33	6	7	
1783-84	26	10	7	2
1784-85	21	5	5	6
1785-86	19	14	5	3
1786-87	26	8	10	5
1787-88	17	7	6	28
1788-89	18	9	11	3
1789-90	23	11	12	40
1790-91	23	13	11	32
1791-92	23	14	8	4
1792-93	22	8	5	5
1793-94	23	10	3	129
1794-95	38	12	6	75
1795-96	32	9	6	54
1796-97	24	9	7	111
1797-98	27	10	11	65
1798-99	28	15	12	102
1799-1800	27	27	6	75
1800-01	50	12	7	79

NORTHANTS. PARISH SURVEYORS ACCOUNTS

Year	Woodford £	Stoke Albany £	Stanion £	Yelvertoft £
1801-02	42	9		69
1802-03	32	8		58
1803-04	34	9		61
1804-05		11		113
1805-06		10		80
1806-07		7		43
1807-08		23		57
1808-09		8		42
1809-10		24		49
1810-11		35		44
1811-12		59		17
1812-13		45		88
1813-14		23		68
1814-15				76
1815-16				102
1816-17				52
1817-18				51
1818-19				89
1819-20				135
1820-21				92
1821-22				114
1822-23				150
1823-24				64
1824-25				95
1825-26				145
1826-27				181
1827-28				72

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Parish	Ref.	Date
Admington - Quinton	D,R.468	1793-95
Ashow	D.R.156/26	1796-1834
Barton on Heath	D.R.0.80	1793-1839
Baginton	D.R.251	1807-43
Bidford	H.R.71	1802-1820
Bilton	D.R.221	1735-1757
Binton	D.R.199	1811-1826
Bishops Tachbrook	D.R.408	1779-1820
Budbrooke	D.R.0.8/16	1750-65
Butler's Marston	Private Collection D.R.458	1820-35
Claverdon	D.R.166	1812-33
Clifford Chambers	D.R.325	1812-39
Farnborough	D.R.0.30A/11	1798-1837
Exhall (Coventry)	D.R.420/4	1817-31
Great Packington	D.R.0.75A/12	1768-1836
Halford	D.R.362	1803-41
Hampton in Arden	D.R.B.63	1785-1814
Hunningham	D.R.179/2	1797-1881
Kenilworth	D.R.96/88,89	1750-1801
Leamington Hastings	D.R.0.43A/4	1824-26
Long Compton (Weston)	C.R.456 Box 23	1787-1840
Meriden	D.R.182/50,51,52	1790-1827
Morton Bagot	D.R.274	1725-68
Nether Whiteacre	D.R.B.27	1769-1838
Pillerton Hersey	C.R.131 645	1793-1839
Rowington	N.5/111,112	1768-1825
Salford Priors	D.R.399	1796-1827
Shustoke	D.R.B.39	1771-1822
sheetington	D.R.B.57	1721-91
Stoke	D.R.409 (Box 4)	1825-31
Temple Grafton	D.R.201	1791-1810
Willey	D.R.407	1771-1818
Wolfhampcote	D.R.167	1803-73

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Bishops Tachbrooke £	Willey £	Broom in Bidford £	Ettington £	Barston Eastcote £
1768-69					1
1769-70					1
1770-71					1
1771-72		7			1
1772-73		13			2
1773-74		6			1
1774-75					1
1775-76					1
1776-77					1
1777-78					1
1778-79					1
1779-80	24	12			1
1780-81	25				1
1781-82	24				1
1782-83	32				1
1783-84	17				1
1784-85	4				1
1785-86	15				1
1786-87	14				
1787-88	17				
1788-89	19				
1789-90	17	10			
1790-91	25	7			
1791-92	21				
1792-93	25	8			
1793-94	25	10			
1794-95	41	4			
1795-96	77	5			
1796-97	18	7			
1797-98	38				
1798-99	35				

Year	Bishops Tachbrooke £	Willey £	Broom in Bidford £	Ettington £	Bassingbourne £
1799-1800		5			
1800-01		6			
1801-02		2			
1802-03		6	61		
1803-04		5	29		
1804-05		5	29	35	
1805-06		5	43	5	89
1806-07	17	6	12	21	102
1807-08	43	5	67	24	142
1808-09	29	11	67	24	69
1809-10	25	12	13	19	68
1810-11	46	16	4	14	164
1811-12	20	9	36	12	48
1812-13	63	14		13	151
1813-14	107	15		5	205
1814-15	19	22	62	8	199
1815-16	46	18	87	15	
1816-17	22	17	63	6	
1817-18	27	17	46	22	
1818-19	28		68	21	
1819-20	14		23	10	
1820-21	29		56	10	
1821-22				6	
1822-23				25	
1823-24				25	
1824-25				34	
1825-26				35	
1826-27				9	
1827-28				5	
1828-29				14	
1829-30				10	
1830-31				9	
1831-32				10	
1832-33				10	

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Rowington £	Meriden £	Hunningham £	Nether Whiteacre £
1768-69	4			
1769-70	3			
1770-71	7			
1771-72	7			
1772-73	5			
1773-74	12			
1774-75	55			
1775-76	100			7
1776-77	27			4
1777-78	22			4
1778-79	14			3
1779-80	12			5
1780-81	11			4
1781-82	15			
1782-83	20			
1783-84	20			
1784-85	17			
1785-86	24			8
1786-87	16			
1787-88	14			5
1788-89	14			5
1789-90	29			
1790-91	16	42		9
1791-92	19	28		4
1792-93	26	39		4
1793-94	71	32		
1794-95	38	38		
1795-96	51	50		13
1796-97	16	40	12	5
1797-98	56	51	18	

Year	Rowington £	Halford £	Meriden £	Hunningham £	Nether Whiteacre £	Exhall £	Stoke £
1798-99	15		35	18			
1799-1800	42		40	16			
1800-01	24		55	12			
1801-02	45		47	34	7		
1802-03	35		27	11	3		
1803-04	53	19		12	9		
1804-05	25	20	58	23	3		
1805-06	48	15	41	34			
1806-07	39	20	45	19			
1807-08	61	7	53	19	6		
1808-09	53	13	39	12	47		
1809-10	66	13	81	32	7		
1810-11	222	10	62	24			
1811-12	105	27	73	25	41		
1812-13	78	18	104	29	30		
1813-14	76	25	113	36	44		
1814-15	68	17	89	38	63		
1815-16	52	16	151	12	47		
1816-17	61	18	118	27	39		
1817-18	53	16	101	25	32	84	
1818-19	61	17	117	21	36	97	
1819-20	139	15	65	36	56	100	
1820-21	79	16	89	55	50	101	
1821-22	41	17	126	17	61	127	
1822-23	58	15	115	27	104	74	
1823-24	44		92	40	74	110	
1824-25	71	34	112	38	44	47	
1825-26	72	27	129	51	50	133	66
1826-27		26	169	52	47	307	64
1827-28		22		23	49	147	66
1828-29		24		88	90	79	56
1829-30		23		36	56	493	184
1830-31		24		46	59	208	135

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Great Packington £	Bilton £	Morton Bagot £
1750-51		4	3
1750-51		3	1
1752-53		15	3
1753-54		5	2
1754-55		7	1
1755-56		11	2
1756-57		16	3
1757-58			4
1758-59			3
1759-60			1
1760-61			3
1761-62			2
1762-63			2
1763-64			2
1764-65			2
1765-66			6
1766-67			2
1767-68			7
1768-69	2		6
1769-70	2		
1770-71	2		
1771-72	2		
1772-73	1		
1773-74	2		
1774-75	1		
1775-76	2		
1776-77	1		
1777-78	1		
1778-79	1		
1779-80	1		
1780-81	1		
1781-82	1		

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Great Packington £	Barton £	Farnborough £	Ashow £	Baginton £
1782-83	1				
1783-84	1				
1784-85	1				
1785-86	1				
1786-87	2				
1787-88	2				
1788-89	1				
1789-90	14				
1790-91	4				
1791-92	2				
1792-93	13				
1793-94	12	10			
1794-95	12	14			
1795-96	3	12			
1796-97	2	14		5	
1797-98	13	4		5	
1798-99	3	19		6	
1799-1800	4	10	8	6	
1800-01	16	11	32	7	
1801-02	7	20	39	5	
1802-03	8	47	43	5	
1803-04	8	19	24	12	
1804-05	8	23	25	12	
1805-06	12	17	34	5	
1806-07	23	24	36	5	
1807-08	14	24	39	17	24
1808-09	11	68	43	11	14
1809-10	24	21	19	8	13
1810-11	24	25	39	6	16
1811-12	66	26	39	13	36
1812-13	35	26	62	13	66

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Great Packington £	Barton £	Farnborough £	Ashow £	Baginton £	Leamington Hastings £
1813-14	37	34	63	11	37	
1814-15	30	28	56	14	42	
1815-16	11	45	56	7	26	
1816-17	20	34	69	21	30	
1817-18	50	40	70	26	34	
1818-19	53	52	64	51	49	
1819-20	50	44	73	13	47	
1820-21	51	46	104	17	33	
1821-22	55	34	127	12	43	
1822-23	35	34	82	26	35	
1823-24	27	33	80	10	29	
1824-25	50	26	135	15	28	63
1825-26	61	36	114	27	42	105
1826-27	70	28	96	19	35	204
1827-28	66	27	92	10	19	122
1828-29	43	29	120	12	21	101
1829-30	46	27	153	30	26	96
1830-31	67	21	90		24	64
1831-32	29	26	89		37	109
1832-33	26	29	102		42	166
1833-34	44	25	103		24	128
1834-35	37	19	76		10	112
1835-36	17	11	117		11	67
1836-37		31			16	
1837-38		71			28	
1838-39		23			22	
1839-40		40			29	
1840-41					19	
1841-42					17	

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Bulbrooke £	Kenilworth £	Shustoke £
1750-51	2	11	
1751-52	2	14	
1752-53	3	8	
1753-54	3	10	
1754-55	3	10	
1755-56	4	12	
1756-57	10	9	
1757-58	3	8	
1758-59	4	8	
1759-60	4	7	
1760-61	4	11	
1761-62	4	7	
1762-63	4	19	
1763-64	4	14	
1764-65	5	13	
1765-66	16		
1766-67	10		
1771-72	10	6	
1777-78		10	
1778-79		7	
1779-80		4	
1780-81	20		
1781-82	35	6	
1782-83	33	6	
1783-84	33	7	
1784-85	20	2	
1785-86	21	4	
1786-87	19	7	
1787-88	16	7	
1788-89	13	43	
1789-90	29	20	

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Pillerton Kersey £	Kenilworth £	Shustoke £	Temple Grafton £	Clifford Chambers £	Binton £
1790-91		47	7			
1791-92		31	7	34		
1792-93		33	7	17		
1793-94	70	29	3	24		
1794-95	144	23	10	58		
1795-96	101	23	7	44		
1796-97	69	89	22	96		
1797-98	73	44	16	28		
1798-99	22	45	18	36		
1799-1800	23	50	20	46		
1800-01	26	53	21	32		
1801-02	26	31	2	23		
1802-03	15		76	25		
1803-04	38		12	18		
1804-05	24		45	32		
1805-06	22		15	43		
1806-07	26		23	42		
1807-08	16		15	44		
1808-09	39		12	54		
1809-10	19		34	44		
1810-11	29		39			
1811-12	34		52			30
1812-13	37		52		69	52
1813-14	24		49		91	40
1814-15	29		37		28	57
1815-16	25		71		105	31
1816-17	16		87		65	32
1817-18	24		50		80	28
1818-19	22		47		82	17
1819-20	15		40		22	36
1820-21	20		54		86	26

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Pillerton Kersey £	Clifford Chambers £	Binton £	Shustoke £	Binton
1821-22	21	103	38	43	
1822-23	23	61	10	12	
1823-24	22	47	16		
1824-25	29	54	25		
1825-26	24	65	24		
1826-27	16	52	20		
1827-28	22	28	24		
1828-29	18	29	25		
1829-30	21	27	14		
1830-31	28	27	21		
1831-32	32	31	20		
1832-33	34	49	28		
1833-34	24	39	15		
1834-35	13	49	29		
1835-36	7	15	31		
1836-37	30	40			
1837-38	25	44			
1838-39	42	36			

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Hampton in Arden £	Weston (Long Compton) £	Salford Priors £	Wolfhampcote £	Claverdon £	Flecknow £
1786-87	5	15				
1787-88	7	7				
1788-89	5	5				
1789-90	19	5				
1790-91	23	6				
1791-92	15	4				
1792-93	12	7				
1793-94	12	6				
1794-95	4	6				
1795-96	15	5				
1796-97	16	8	32			
1797-98	5	7	79			
1798-99	15	5	18			
1799-1800	27	8	62			
1800-01	40	11	255			
1801-02	38	7	119			
1802-03	10	7	96			
1803-04	31	5	41	120		
1804-05	18	7	99	71		
1805-06	36	9	73	49		
1806-07	23	5	108	82		
1807-08	27	4	29	172		
1808-09	27	7	154	35		
1809-10	32	15	172	141		
1810-11	31	11	113	112		
1811-12	22	5	225	90		
1812-13	22	15	56	149	29	
1813-14	33	21	93	72	39	

WARWICKSHIRE PARISH SURVEYORS ACCOUNTS

Year	Hampton in Arden £	Weston (Long Compton) £	Salford Priors £	Wolfhampcote £	Claverdon £	Flecknow £
1814-15	34	18	68	95	39	
1815-16	46	16	59	79	21	
1816-17		17	55	209	23	
1817-18		16	41	145	22	
1818-19		17	73	121	24	
1819-20		22	93	47	21	
1820-21		17	98	45	24	
1821-22		31	45	73	27	
1822-23		21	25	52	33	
1823-24		24	32	122	35	
1824-25		27	51	178	30	
1825-26		30	52	68	33	
1826-27		15	76	145	34	95
1827-28		10		132	31	62
1828-29		23		193	44	73
1829-30		28		237	50	124
1830-31		29		198	39	141
1831-32		29		128	42	63
1832-33		44		168	49	68
1833-34				103		76
1834-35				86		51
1835-36				116		35
1836-37				114		101
1837-38				140		
1838-39				216		
1839-40				140		

A P P E N D I X E

QUASI-NET EXPENDITURE FIGURES FOR INLAND NAVIGATIONS

Full details of all waterway records on which this Appendix in based can be found in the Primary Sources list below.

ABERDEEN CANAL 19 miles (1796)

YEAR	£
1837-38	575
1838-39	687
1839-40	997
1840-41	907
1841-42	831
1842-43	1,361
1843-44	746

Year	£	Year	£	Year	£
1775-76	13,281	1800-01	8,957	1825-26	112,351
1776-77	12,699	1801-02	12,671	1826-27	80,407
1777-78	9,667	1802-03	20,483	1827-28	72,404
1778-79	13,184	1803-04	20,927	1828-29	52,388
1779-80	7,266	1804-05	20,389	1829-30	84,505
1780-81	6,563	1805-06	21,549	1830-31	37,461
1781-82	5,441	1806-07	13,276	1831-32	55,989
1782-83	6,158	1807-08	13,790	1832-33	48,764
1783-84	6,150	1808-09	13,517	1833-34	60,666
1784-85	5,494	1809-10	16,271	1834-35	68,648
1785-86	5,773	1810-11	15,370	1835-36	69,022
1786-87	6,129	1811-12	12,781	1836-37	75,965
1787-88	6,197	1812-13	16,041	1837-38	69,628
1788-89	6,186	1813-14	14,563	1838-39	67,836
1789-90	6,262	1814-15	12,737	1839-40	76,779
1790-91	6,666	1815-16	11,775	1840-41	51,171
1791-92	6,653	1816-17	11,851	1841-42	62,417
1792-93	8,447	1817-18	8,376	1842-43	35,518
1793-94	9,891	1818-19	14,168	1843-44	27,789
1794-95	7,842	1819-20	17,862	1844-45	27,776
1795-96	8,055	1820-21	18,784	1845-46	32,602
1796-97	7,215	1821-22	23,325	1846-47	63,448
1797-98	6,397	1822-23	139,216	1847-48	54-934
1798-99	8,083	1823-24	77,982	1848-49	34,575
1799-1800	7,775	1824-25	18,303	1849-50	25,267
				1850-51	22,711

BARNSLEY CANAL ACCOUNTS 15

Year	£	Year	£
1793-94	12,240	1809-10	2,774
1794-95	21,518	1810-11	3,954
1795-96	17,820	1811-12	3,307
1796-97	20,854	1812-13	m
1797-98	14,172	1813-14	4,544
1798-99	9,285	1814-15	3,344
1799-1800	6,190	1815-16	3,242
1800-01	6,873	1816-17	2,522
1801-02	3,927	1817-18	3,011
1802-03	3,169	1818-19	2,699
1803-04	2,534	1819-20	2,880
1804-05	2,172	1820-21	4,428
1805-06	2,367	1821-22	2,543
1806-07	1,615	1822-23	2,678
1807-08	1,808	1823-24	2,002
1808-09	1,689	1824-25	2,500
		1825-26	2,650

BASINGSTOKE CANAL ACCOUNTS 37 (1778)

Year	£	Year	£
1778-06	m	1819-20	1,242
1796-97	2,800	1820-21	2,170
1797-99	m	1821-22	1,911
1799-1800	2,684	1822-23	1,889
1800-01	2,381	1823-24	1,086
1801-02	2,535	1824-25	2,314
1802-03	2,694	1825-26	1,259
1803-04	1,794	1826-27	1,881
1806-07	862(½yr.)	1827-28	1,776
1808-09	925(½yr.)	1828-29	3,168
1809-12	m	1829-30	2,556
1812-13	2,528	1830-34	m
1813-14	2,717	1835-36	3,521
1814-15	2,924	1836-37	1,585 (½ yr.)
1815-16	2,691	1837-39	m
1816-17	2,166	1839-40	3,015
1817-18	1,982	1840-47	m
1818-19	2,551	1849-50	1,129

BEDFORD LEVEL 22 (1670)

Year	£	Year	£
1752-53	2,723	1785-86	4,390
1756-57	2.429	1786-87	5,435
1758-59	4,235	1787-88	4,904
1760-61	3,998	1788-89	5,336
1761-62	3,889	1789-90	5,273
1762-63	5,461	1790-91	5,283
1763-64	7,187	1791-92	4,882
1764-65	m	1792-93	4,545
1765-66	2,265	1793-94	4,992
1766-72	m	1794-95	5,328
1773-74	7,901	1795-96	11,052
1774-75	5,174	1796-97	5,226
1775-76	6,706	1797-98	5,376
1776-77	7,131	1798-99	6,447
1777-78	6,059	1799-1800	8,518
1778-79	6,017	1800-01	6,318
1779-80	4,581	1801-02	6,121
1780-81	4,456	1802-03	8,631
1781-82	m	1803-04	9,698
1782-83	5,946	1804-05	9,044
1783-84	6,738	1805-06	7,799
1784-85	5,997	1806-07	8,077

BEDFORD LEVEL, contd. 22 (1670)

Year	£	Year	£
1807-08	9,950	1829-30	6,881
1808-09	9,282	1830-31	13,029
1809-10	10,470	1831-32	10,102
1810-11	7,290	1832-33	7,282
1811-12	6,998	1833-34	10,055
1812-13	6,715	1834-35	8,700
1813-14	9,078	1835-36	9,270
1814-15	6,681	1836-37	6,955
1815-16	8,382	1837-38	11,454
1816-17	5,307	1838-39	11,368
1817-18	6,667	1839-40	6,796
1818-19	4,834	1840-41	5,927
1819-20	7,261	1841-42	4,854
1820-21	5,503	1842-43	7,089
1821-22	9,058	1843-44	7,364
1822-23	4,981	1844-45	8,163
1823-24	12,550	1845-46	7,111
1824-25	10,922	1846-47	5,753
1825-26	17,449	1847-48	4,792
1826-27	19,011	1848-49	3,468
1827-28	14,280	1849-50	3,567
1828-29	14,463	1850-51	3,541

BEDFORD - OUSE NAVIGATION 20 (1649)

Year	£	Year	£	Year	£
1759-60	333	1781-82	457	1814-15	128
1760-61	419	1782-83	339	1815-16	145
1761-62	275	1783-84	457	1816-17	69
1762-63	415	1784-85	392	1817-18	113
1763-64	409	1785-86	823	1818-19	106
1764-65	481	1786-87	613	1819-20	114
1765-66	668	1787-88	918	1820-36	m
1766-67	300	1788-89	469	1837-38	3, 373
1767-68	20 (Oct.1-Jan.1)	1789-90	381	1838-39	2,147
1768-69	339 (Jan-Jan)	1790-91	442	1839-40	2,710
1769-70	579	1791-92	460	1840-41	2,928
1770-71	513	1792-93	517	1841-42	1,749
1771-72	278	1793-94	551	1842-43	2,206
1772-73	396	1794-95	614	1843-44	2,047
1773-74	588	1795-96	660	1844-45	3,157
1774-75	507	1796-97	804	1845-46	2,517
1775-76	588	1797-98	518	1846-47	2,674
1776-77	536	1798-99	570	1847-48	2,287
1777-78	426	1799-1800	594	1848-49	1,246
1778-79	457	1800-01	658	1849-50	1,256
1779-80	458	1801-13	m	1850-51	1,251
1780-81	354	1813-14 (Apr.-Apr.)	181		

BRECON AND ABERGAVENNY ACCOUNTS 33 (1793)

Year	£	Year	£
1798-99	11,901	1811-12	14,545
1799-1800	7,341	1812-13	5,258
1800-01	16,474	1813-14	3,582
1801-02	5,815	1814-15	6,556
1802-03	m	1815-16	3,866
1803-04	3,101	1816-17	3,131
1804-05	1,516	1817-18	3,629
1805-06	1,110	1818-19	2,279
1806-07	1,842	1819-20	2,720
1807-08	2,147	1820-21	3,062
1808-09	1,822	1821-22	2,255
1809-10	11,522	1822-23	2,070
1810-11	27,336	1823-24	2,236

BIRMINGHAM AND LIVERPOOL (49½)

1826-27	53,011	1835-37	11,671
1827-28	81,268	1837-38	9,382
1828-29	76,611	1838-39	8,434
1829-30	103,595	1839-40	10,297
1830-31	126,107	1840-41	9,467
1831-32	115,590	1841-42	10,913
1832-33	85,764	1842-43	11,108
1833-34	18,861	1843-44	9,405
1834-35	71,415		

BLYTH RIVER NAVIGATION 9 (1757)

Year	£	Year	£	Year	£
1762-63	177	1794-95	142	1826-27	23
1763-64	134	1795-96	1o2	1827-28	245
1764-65	198	1796-97	64	1828-29	364
1765-66	74	1797-98	189	1829-30	245
1766-67	66	1798-99	183	1830-31	1,077
1767-68	74	1799-1800	354	1831-32	265
1768-69	50	1800-01	60	1832-33	338
1769-70	57	1801-02	204	1833-34	418
1770-71	86	1802-03	139	1834-35	374
1771-72	62	1803-04	100	1835-36	270
1772-73	64	1804-05	84	1836-37	514
1773-74	58	1805-06	79	1837-38	389
1774-75	60	1806-07	41	1838-39	565
1775-76	72	1807-08	50	1839-40	457
1776-77	158	1808-09	34	1840-41	509
1777-78	57	1809-10	50	1841-42	436
1778-79	49	1810-11	138	1842-43	509
1779-80	75	1811-12	139	1843-44	275
1780-81	71	1812-13	61	1844-45	427
1781-82	42	1813-14	75	1845-46	770
1782-83	64	1814-15	98	1846-47	330
1783-84	56	1815-16	99	1847-48	418
1784-85	71	1816-17	129	1848-49	419
1785-86	150	1817-18	59	1849-50	416
1786-87	66	1818-19	42	1850-51	164
1787-88	226	1819-20	82	1851-52	238
1788-89	166	1820-21	48	1852-53	243
1789-90	205	1821-22	330	1853-54	192
1790-91	128	1822-23	129	1854-55	237
1791-92	113	1823-24	134	1855-56	179
1792-93	124	1824-25	253		
1793-94	46	1825-26	255		

Year	£	Year	£
Mid 1759 to end 1760	7,471	1784-85	9,484
1760-62	12,521	1785-86	13,189
1762-64	13,258	1786-87	15,328
1764-65	15,888	1787-88	17,610
1765-66	11,128	1788-89	17,282
1766-67	10,328	1789-90	16,302
1767-68	6,606	1790-91	19,376
1768-69	14,903	1791-92	40,117
1769-70	19,715	1792-93	45,600
1770-71	17,657	1793-94	52,267
1771-72	8,089	1794-95	38,883
1772-73	24,765	1795-96	38,237
1773-74	20,911	1796-97	37,866
1774-75	17,198	1797-98	38,246
1775-76	11,310	1798-99	44,883
1776-77	13,068	1799-1800	43,430
1777-78	10,550	1800-01	49,710
1778-79	10,731	1801-02	59,812
1779-80	13,625	1802-03	55,641
1780-81	9,435	1803-04	64,375
1781-82	9,579	1804-05	69,099
1782-83	8,583	1805-06	66,364
1783-84	9,206	1806-07	

Year	£	Year	£	Year	£
1775-76	2,313	1796-97	5,165	1817-18	13,201
1776-77	3,082	1797-98	7,481	1818-19	13,244
1777-78	1,311	1798-99	3,954	1819-20	9,963
1778-79	1,906	1799-1800	5,254	1820-21	10,928
1779-80	1,952	1800-01	6,617	1821-22	10,728
1780-81	4,983	1801-02	6,677	1822-23	12,454
1781-82	2,415	1802-03	9,598	1823-24	12,601
1782-83	2,040	1803-04	7,707	1824-37	m
1783-84	2,162	1804-05	9,137	1837-38	24,991
1784-85	1,720	1805-06	9,688	1838-39	54,121
1785-86	3,823	1806-07	8,183	1839-40	44,225
1786-87	2,530	1807-08	13,012	1840-41	21,564
1787-88	2,993	1808-09	8,639	1841-42	7,604
1788-89	3,172	1809-10	7,308	1842-44	m
1789-90	3,339	1810-11	10,384	1844-45	20,118
1790-91	2,370	1811-12	9,887	1845-46	15,908
1791-92	4,275	1812-13	9,780	1846-47	13,849
1792-93	4,479	1813-14	7,805	1847-48	17,364
1793-94	8,442	1814-15	7,450	1848-49	12,286
1794-95	8,148	1815-16	15,244	1849-50	8,809
1795-96	5,142	1816-17	13,448	1850-51	7,517

Year	£	Year	£
1803-04	14,492	1827-28	3,850
1804-05	53,619	1828-29	4,542
1805-06	43,135	1829-30	3,333
1806-07	47,857	1830-31	3,012
1807-08	41,951	1831-32	2,982
1808-09	34,457	1832-33	3,039
1809-10	49,890	1833-34	3,447
1810-12	114,294	1834-35	3,865
1812-13	42,107	1835-36	3,460
1813-14	41,378	1836-37	3,747
1814-15	25,117	1837-38	3,702
1815-16	58,123	1838-39	4,229
1816-17	41,757	1839-40	2,668
1817-18	41,244	1840-41	5,337
1818-19	43,425	1841-42	4,816
1819-20	55,452	1842-43	5,767
1820-21	43,383	1843-44	8,723
1821-22	18,031	1844-45	53,865
1822-23	14,808	1845-46	72,660
1823-24	32-146	1846-47	46,140
1824-25	27,928	1847-48	43,579
1825-26	8,371	1848-49	9,145
1826-27	3,945	1849-50	12,016
		1850-51	6,565

RIVER CAM ACCOUNTS 7 (1703)

Year	£	Year	£	Year	£
1751-52	383	1785-86	335	1819-20	839
1752-53	448	1786-87	617	1820-21	725
1753-54	416	1787-88	410	1821-22	2,084
1754-55	469	1788-89	596	1822-23	1,340
1755-56	349	1789-90	546	1823-24	980
1756-57	439	1790-91	368	1824-25	506
1757-58	424	1791-92	669	1825-26	1,675
1758-59	430	1792-93	369	1826-27	1,077
1759-60	261	1793-94	1,137	1827-28	925
1760-61	356	1794-95	579	1828-29	701
1761-62	473	1795-96	370	1829-30	525
1762-63	169	1796-97	372	1830-31	4,011
1763-64	423	1797-98	476	1831-32	2,984
1764-65	513	1798-99	389	1832-33	3,084
1765-66	872	1799-1800	493	1833-34	3,926
1766-67	267	1800-01	666	1834-35	3,340
1767-68	404	1801-02	584	1835-36	1,913
1768-69	808	1802-03	892	1836-37	713
1769-70	778	1803-04	1,120	1837-38	1,100
1770-71	477	1804-05	1,007	1838-39	859
1771-72	636	1805-06	864	1839-40	619
1772-73	1,200	1806-07	816	1840-41	761
1773-74	544	1807-08	1,111	1841-42	1,025
1774-75	521	1808-09	1,140	1842-43	1,536
1775-76	258	1809-10	740	1843-44	731
1776-77	445	1810-11	677	1844-45	467
1777-78	252	1811-12	708	1845-46	790
1778-79	313	1812-13	1,070	1846-47	479
1779-80	437	1813-14	1,049	1847-48	648
1780-81	467	1814-15	1,014	1848-49	522
1781-82	387	1815-16	905	1849-50	696
1782-83	626	1816-17	864	1850-51	1,201
1783-84	363	1817-18	735	1851-52	461
1784-85	292	1818-19	774		

CHESTERFIELD CANAL 46 (1771)

Year	£	Year	£
1772	11,164	1807	3,452
1773	24,174	1808	3,060
1774	27,010	1809	3,910
1775	28,875	1810	3,418
1776	26,240	1811	3,359
1777	28,740	1812	3,332
1778	4,341	1813	3,456
1793	3,068	1814	2,844
1794	2,144	1815	4,693
1795	2,781	1816	3,053
1796	2,952	1817	3,175
1797	3,705	1818	3,273
1798-99	m	1819	3,158
1800	3,270	1820	2,929
1801	4,169	1821	3,103
1802	3,596	1822	3,126
1803	3,241	1823	2,934
1804	4,397	1824	3,512
1805	4,163	1825	3,273
1806	4,837	1826	3,118

COVENTRY CANAL ACCOUNTS 33

Year	£	Year	£	Year	£
1767-68	7,885	1795-96	5,021	1823-24	7,842
1768-69	16,562	1796-97	4,101	1824-25	7,422
1769-70	10,158	1797-98	3,427	1825-26	8,315
1770-71	6,573	1798-99	3,793	1826-27	7,965
1771-72	2,496	1799-1800	3,909	1827-28	10,712
1772-73	1,214	1800-01	3,930	1828-29	10,855
1773-74	765	1801-02	4,474	1829-30	11,568
1774-75	781	1802-03	3,169	1830-31	12,692
1775-76	497	1803-04	3,142	1831-32	10,673
1776-77	501	1804-05	3,866	1832-33	9,247
1777-78	550	1805-06	3,546	1833-34	9,350
1778-79	330	1806-07	4,766	1834-35	6,350
1779-80	346	1807-08	5,236	1835-36	6,467
1780-81	307	1808-09	4,690	1836-37	7,552
1781-82	403	1809-10	5,528	1837-38	9,615
1782-83	255	1810-11	5,606	1838-39	7,933
1783-84	362	1811-12	6,377	1839-40	8,069
1784-85	190	1812-13	6,678	1840-41	10,058
1785-86	428	1813-14	6,286	1841-42	7,365
1786-87	490	1814-15	6,539	1842-43	5,227
1787-88	282	1815-16	6,186	1843-44	5,197
1789-90	2,515	1816-17	15,875	1844-45	5,523
1790-91	4,409	1817-18	7,209	1845-46	5,431
1791-92	2,392	1818-19	7,328	1846-47	6,267
1792-93	1,850	1819-20	8,299	1847-48	8,696
1793-94	2,999	1820-21	8,360	1848-49	6,094
1794-95	3,076	1821-22	8,308	1849-50	5,377
		1822-23	7,582	1850-51	4,878

Year	£					
(1789-95	£82,616	Surveys and Acts				£4,017) *
		Land				£3,979)
		Labour & materials in canal				£68,432)
		Interest				£1,264)
		Year	£	Year	£	
1795-96	3,900	1812-13	7,747	1829-30	4, 324	
1796-97	5,564	1813-14	7,866	1830-31	4,877	
1797-98	6,540	1814-15	6,824	1831-32	4,923	
1798-99	7,314	1815-16	7,917	1832-33	5,019	
1799-1800	6,797	1816-17	6,125	1833-34	4,827	
1800-01	9,726	1817-18	6,289	1834-35	5,084	
1801-02	10,485	1818-19	8,073	1835-36	6,107	
1802-03	6,682	1819-20	8,733	1836-37	17,384	
1803-04	6,220	1820-21	7,481	1837-38	6,049	
1804-05	7,313	1821-22	6,647	1838-39	7,531	
1805-06	8,165	1822-23	6,917	1839-40	8,864	
1806-07	8,149	1823-24	7,717	1840-41	5,350	
1807-08	8,149	1824-25	6,946	1841-42	6,618	
1808-09	8,854	1825-26	6,778	1842-43	5,692	
1809-10	9,122	1826-27	6,166	1843-44	4,880	
1810-11	9,981	1826-27	6,166	1844-45	6,022	
1811-12	10,674	1827-28	6,282			
		1828-29	4,624			

* Not included in expenditure totals - See Chapter 8.

DEARNE AND DOVE CANAL 14 (1793)

Year	£	Year	£
(To 1795	16,818)	1814-15	1,103
1795-1808	75,926)*	1815-16	1,130
1807-08	1,054	1816-17	1,097
1808-09	962	1817-18	1,103
1809-10	1,117	1818-19	1,056
1810-11	1,203	1819-20	1,109
1812-13	1,297	1820-21	1,228
1813-14	1,265		

*Not included in expenditure totals - see Chapter 8.

DERBY CANAL COMPANY 18 (1793)

Year	£
1806-07	1,771

DERWENT NAVIGATION ACCOUNTS 38 (1702)

Year	£	Year	£
1805-06	1,506	1816-17	2,094
1806-07	1,445	1817-18	2,446
1807-08	2,330	1818-19	2,319
1808-09	2,249	1819-20	m
1809-10	1,696	1820-21	1,759
1810-11	2,097	1821-22	2,033
1811-12	1,075	1822-23	1,829
1812-13	3,003	1823-24	1,983
1813-14	5,885	1824-25	2,419
1814-15	3,870	1825-26	2,176
1815-16	2,751	1826-27	2,413
		1827-28	3,181

DRIFFIELD NAVIGATION 11 (1767)

Year	£	Year	£	Year	£
1816-17	258	1825-26	346	1833-44	m
1817-18	730	1826-27	938	1844-45	1,161
1818-19	865	1827-28	805	1845-46	550
1819-20	2,089	1828-29	794	1846-47	447
1820-21	757	1829-30	723	1847-48	299
1821-22	706	1830-31	920	1848-49	236
1822-23	1,011	1831-32	958	1849-50	429
1823-24	923	1832-33	944	1850-51	492

DON ACCOUNTS 32 (1726)

1764-65	8,027	1766-67	3,702	1768-69	5,260
1765-66	4,690	1767-68	m		

EDINBURGH AND GLASGOW UNION 32

1816-17	10,093	1818-19	146,960	1820-21	14,845
1817-18	48,767	1819-20	247,917		

Year	£	Year	£	Year	£
1768-69	1,105	1795-96	587	1822-23	2,369
1769-70	1,077	1796-97	537	1823-24	1,015
1770-71	633	1797-98	518	1824-25	12,677
1771-72	415	1798-99	404	1825-26	7,002
1772-73	641	1799-1800	443	1826-27	19,121
1773-74	320	1800-01	573	1827-28	2,439
1774-75	303	1801-02	688	1828-29	18.109
1775-76	308	1802-03	510	1829-30	13,994
1776-77	389	1803-04	733	1830-31	1,237
1777-78	1, 370	1804-05	850	1831-32	2,075
1778-79	392	1805-06	980	1832-33	7,108
1779-80	524	1806-07	643	1833-34	2,085
1780-81	998	1807-08	839	1834-35	2,979
1781-82	4 19	1808-09	607	1835-36	721
1782-83	519	1809-10	561	1836-37	2,070
1783-84	500	1810-11	633	1837-38	1,243
1784-85	651	1811-12	798	1838-39	996
1785-86	532	1821-13	693	1839-40	1,006
1786-87	587	1813-14	562	1840-41	1,612
1787-88	466	1814-15	854	1841-42	1,694
1788-89	641	1815-16	686	1842-43	1,665
1789-90	1,376	1816-17	883	1843-44	1,365
1790-91	2,890	1817-18	1,000	1844-45	592
1791-92	1,895	1818-19	1,521	1845-46	152
1792-93	567	1819-20	816	1846-47	41
1793-94	665	1820-21	4,961	1847-48	236
1794-95	724	1821-22	742	1848-49	432
				1849-50	1,365

Year	£	Year	£
1791-92	4,709	1814-15	15,153
1792-93	6,017	1815-16	15,703
1793-94	93,000	1816-17	11,057
1794-95	m	1817-18	11,202
1795-96	6,261	1818-19	12,952
1796-97	m	1819-20	16,178
1797-98	7,652	1820-21	13,762
1798-99	14,401	1821-22	11,471
1799-1800	7,400	1822-23	13,525
1800-01	8,159	1823-24	13,630
1801-02	9,500	1824-25	13,169
1802-03	9,422	1825-26	12,273
1803-04	14,000	1826-27	13,925
1804-05	8,623	1827-28	13,127
1805-06	7,990	1828-29	14,046
1806-07	10,170	1829-30	16,334
1807-08	10,746	1830-31	18,226
1808-09	11,569	1831-32	13,734
1809-10	12,020	1832-33	14,899
1810-11	14,550	1833-34	13,181
1811-12	14,012	1834-35	14,896
1812-13	14,109	1835-36	16,597
1813-14	14,053		

GLAMORGAN CANAL 25 (1790)

Year	£	Year	£
1801-02	3,617	1827-28	6,743
1802-03	4,648	1828-29	5,615
1803-04	3,938	1829-30	6,213
1804-05	m	1830-31	7,028
1805-06	5,332	1831-32	6,366
1806-07	4,222	1832-33	5,621
1807-08	7,055	1833-34	10,143
1808-09	10,065	1834-35	11,243
1809-10	7,842	1835-36	11,338
1810-11	5,563	1836-37	8,070
1811-12	5,977	1837-38	10,349
1812-13	5,579	1838-39	14,862
1813-14	m	1839-40	20,377
1814-15	5,460	1841-41	19,464
1815-16	5,995	1841-42	12,021
1816-17	m	1842-43	5,994
1817-18	4,768	1843-44	6,417
1818-19	5,514	1844-45	7,148
1819-20	7,671	1845-46	13,301
1820-21	5,863	1846-47	10,144
1821-22	m	1847-48	7,852
1822-23	7,015	1848-49	10,992
1823-26	m	1849-50	10,165

GRAND JUNCTION CANAL 130 (1793)

Year	£
1793-94	122,863
1794-95	123,529
1795-96	124,109
1796-97	78,818
1797-98	47,215
1798-99	69,607
1799-1800	89,953
1800-01	144,306
1811-12	42,458
1812-13	70,946
1813-14	76,037
1814-15	37,356

GRANTHAM CANAL 33 (1793)

Year	£	
(1793-98	114,734	
	Int. 9,000	This includes Port Expenses £5,000* Surveying £254, Purchase money for land £2,616, Salaries £2,000 Printing and post £237, expenses of Committee £625, Cutting Canal £91,983, Rents £200.

Year	£		Year		Year	
1798-99	8,428		1816-17	7,243	1833-34	4,923
1800-01	5,543	- £700 interest	1817-18	8,391	1834-35	4,910
1801-02	6,118	- £1,000	1818-19	8,157	1835-36	7,083
1802-03	4,301		1819-20	8,113	1836-37	8,142
1803-04	6,977		1820-21	9,082	1837-38	9,099
1804-05	7,553		1821-22	9,036	1838-39	8,582
1805-06	5,793		1822-23	8,413	1839-40	8,939
1806-07	6,651		1823-24	10,727	1840-41	8,841
1807-08	5,278		1824-25	10,756	1841-42	7,605
1808-09	5,645		1825-26	10,348	1842-43	7,764
1809-10	6,934		1826-27	9,921	1843-44	7,176
1810-11	7,423		1827-28	10,250	1844-45	7,251
1811-12	761		1828-29	6,120	1845-46	6,260
1812-13	7,096		1829-30	m	1846-47	6,374
1813-14	7,267		1830-31	4,166	1847-48	7,070
1814-15	8,768		1831-32	4,380	1848-49	6,930
1815-16	7,647		1832-33	4,477	1850	6,827

*Not included in expenditure totals - see above, Chapter 8.

HUDDERSFIELD CANAL 23 (1794)

Year	£	Year	£
1809-10	25,247	1817-18	4,101
1810-11	14,127	1818-19	3,490
1811-12	6,384	1819-20	3,783
1812-13	4,302	1820-21	5,324
1813-16	m	1821-22	6,473
1816-17	4,795		

ITCHEN NAVIGATION RECORDS 14 (1665)

1832-33	1,744	1842-43	976
1833-34	1,754	1843-44	1,286
1834-35	1,602	1844-45	1,008
1835-36	1,625	1845-46	870
1836-37	1,605	1846-47	909
1837-38	65	1847-48	952
1838-39	1,855	1848-49	735
1839-40	1,733	1849-50	728
1840-41	1,261	1850-51	1,011
1841-42	1,202		

PORT OF LONDON ACCOUNTS AND ISLE OF DOGS 1 (1799)

Year	£	Year	£	Year	£
1800-01	5,055	1817-18	14,072	1834-35	7,118
1801-02	5,776	1818-19	12,960	1835-36	6,359
1802-03	15,414	1819-20	10,859	1836-37	7,658
1803-04	6,497	1820-21	14,743	1837-38	9,213
1804-05	6,033	1821-22	9,672	1838-39	13,379
1805-06	20,374	1822-23	10,388	1839-40	8,538
1806-07	7,935	1823-24	11,264	1840-41	8,871
1807-08	16,740	1824-25	10,106	1841-42	8,139
1808-09	16,469	1825-26	10,491	1842-43	8,308
1809-10	13,284	1826-27	14,169	1843-44	10,621
1810-11	10,479	1827-28	7,627	1844-45	10,451
1811-12	11,116	1828-29	9,184	1845-46	8,497
1812-13	16,742	1829-30	5,502	1846-47	8,177
1813-14	16,867	1830-31	5,947	1847-48	16,382
1814-15	15,170	1831-32	6,182	1848-49	8,971
1815-16	11,107	1832-33	5,343	1849-50	9,994
1816-17	11,164	1833-34	3,372	1850-51	10,763

(Expenses incurred in passing Act - £7,684 to 1794)

Year	£	Year	£	Year	£
1794-96	52,085	1819-20	8,695	1835-36	11,635
1796-97	107,845	1820-21	9,599	1836-37	13,044
1797-98	66,344	1821-22	9,312	1837-38	13,253
1798-1800	216,775	1822-23	8,505	1838-39	13,522
1804-05	36,726	1823-24	8,981	1839-40	12,856
1805-07	84,410	1824-25	10,566	1840-41	13,738
1807-08	67,660	1825-26	12,821	1841-42	19,024
1808-09	78,509	1826-27	14,857	1842-43	16,753
1809-10	59,054	1827-28	14,966	1843-44	13,455
1810-11	53,416	1828-29	14,790	1844-45	14,395
1812-13	9,603	1829-30	12,903	1845-46	16,176
1814-15	10,414	1830-31	13,362	1846-47	13,270
1815-16	11,733	1831-32	13,439	1847-48	14,340
1816-17	9,733	1832-33	15,565	1848-49	13,871
1817-18	3,993	1833-34	14,490	1849-50	13,034
1818-19	10,037	1834-35	15,626	1850-51	12,556

KIDWELLY AND LLANELLY CANAL CO.

Year	£	Year	£
1824	1,499	1829-30	298
1827-28	255	1830-33	m
1828-29	248	1833-34	358

LANCASTER CANAL ACCOUNTS 60 (1792)

Year	£	Year	£	Year	£
1806-07	9,640	1821-22	12,917	1836-37	15,543
1807-08	6,955	1822-23	16,999	1837-38	8,181
1808-09	5,498	1823-24	31,457	1838-39	7,894
1809-10	7,625	1824-25	33,278	1839-40	8,598
1810-11	8,446	1825-26	21,112	1840-41	9,579
1811-12	8,341	1826-27	10,283	1841-42	6,853
1812-13	11,382	1827-28	8,542	1842-43	6,788
1813-14	17,890	1828-29	8,620	1843-44	6,657
1814-15	33,368	1829-30	8,011	1844-45	6,925
1815-16	17,953	1830-31	8,455	1845-46	6,582
1816-17	44,089	1831-32	8,321	1846-47	6,803
1817-18	47,289	1832-33	8,363	1847-48	4,792
1818-19	21,960	1833-34	10,574	1848-49	2,579
1819-20	18,143	1834-35	10,267	1849-50	2,400
1820-21	19,407	1835-36	10,835		

LARK NAVIGATION (Suffolk) 14 (1700)

1780-81	£403	1790-91	£417	1801-02	£549
1781-82	383	1791-92	399	1802-03	614
1782-83	415	1792-93	385	1803-04	328
1783-84	434	1793-94	627	1804-05	506
1784-85	619	1794-95	617	1805-06	510
1785-86	493	1795-96	402	1806-07	631
1786-87	373	1796-97	481	1807-08	607
1787-88	407	1797-98	418	1808-09	731
1788-89	370	1798-99	451	1809-10	521
1789-90	422	1799-1800	399	1810-11	531

Year	£	Year	£	Year	£
1783-84	2,630	1806-07	18,734	1829-30	23,165
1784-85	2,342	1807-08	30,456	1830-31	24,094
1785-86	3,353	1808-09	31,668	1831-32	23,190
1786-87	2,769	1809-10	31,403	1832-33	24,435
1787-88	3,153	1810-11	12,953	1833-34	25,747
1788-89	3,492	1811-12	39,550	1834-35	25,635
1789-90	3,527	1812-13	41,966	1835-36	22,077
1790-91	3,472	1813-14	56,991	1836-37	26,989
1791-92	51,304	1814-15	59,250	1837-38	29,637
1792-93	40,210	1815-16	60,302	1838-39	28,940
1793-94	53,610	1816-17	46,188	1839-40	34,485
1794-95	34,495	1817-18	15,233	1840-41	36,106
1795-96	31,232	1818-19	63,512	1841-42	32,467
1796-97	42,423	1819-20	22,571	1842-43	28,551
1797-98	36,683	1820-21	39,591	1843-44	21,757
1798-99	36,387	1821-22	32,594	1844-45	19,207
1799-1800	31,315	1822-23	26,653	1845-46	22,271
1800-01	24,194	1823-24	21,283	1846-47	22,393
1801-02	37,377	1824-25	30,278	1847-48	22,729
1802-03	34,435	1825-26	27,072	1848-49	20,009
1803-04	23,952	1826-27	24,704	1849-50	18,218
1804-05	7,467	1827-28	23,718	1850-51	16,547
1805-06	17,450	1828-29	25,256		

LEICESTER NAVIGATION 16

Year	£	Year	£	Year	£
1791-92	7,895	1805-06	2,296	1818-19	2,055
1792-94	m	1806-07	1,834	1819-20	(Jan)1,471
1794-95	142,932	1807-08	1,707	1820-21	1,500
1795-96	6,009	1808-09	1,972	1821-24	m
1796-97	3,180	1809-10	2,671	1824-25	3,170
1797-98	1,637	1810-11	1,898	1825-26	2,288
1798-99	1,712	1811-12	1,638	1826-27	2,157
1799-1800	4,397	1812-13	1,677	1827-28	2,689
1800-01	2,357	1813-14	2,816	1828-29	2,088
1801-02	1,304	1814-15	1,518	1829-30	2,033
1802-03	1,178	1815-16	2,147	1830-31	2,236
1803-04	1,610	1816-17	1,963	1831-32	2,016
1804-05	1,957	1817-18	1,652		

LEICESTER AND NORTHANTS CANAL 24 (1773)

Year	£
1841-42	2,435
1842-43	2,203
1843-44	2,243
1844-45	2,110

Year	£	Year	£	Year	£
1750-51	280	1784-85	696	1818-19	3,866
1751-52	205	1785-86	924	1819-20	3,834
1752-53	235	1786-87	842	1820-21	2,428
1753-54	265	1787-88	785	1821-22	2,469
1754-55	376	1788-89	747	1822-23	1,936
1755-56	467	1789-90	672	1823-24	2,334
1756-57	292	1790-91	919	1824-25	2,981
1757-58	343	1791-92	1,299	1825-26	3,419
1758-59	829	1792-93	1,181	1826-27	3,807
1759-60	493	1793-94	2,042	1827-28	3,503
1760-61	685	1794-95	1,073	1828-29	2,298
1761-62	915	1795-96	1,717	1829-30	4,788
1762-63	709	1796-97	1,555	1830-31	3,793
1763-64	829	1797-98	905	1831-32	1,720
1764-65	1, 184	1798-99	1,661	1832-33	2,818
1765-66	1,003	1799-1800	1,244	1833-34	3,388
1766-67	619	1801-02	1,377	1834-35	3,345
1767-68	615	1801-02	2,111	1835-36	4,929
1768-69	610	1802-03	1,793	1836-37	5,622
1769-70	840	1803-04	3,228	1837-38	4,161
1770-71	538	1804-05	3,179	1838-39	2,474
1771-72	838	1805-06	3,163	1839-40	2,392
1772-73	715	1806-07	2,663	1840-41	2,699
1773-74	742	1807-98	2,863	1841-42	3,092
1774-75	623	1808-09	3,314	1842-43	2,486
1775-76	641	1809-10	3,606	1843-44	2,515
1776-77	635	1810-11	2,936	1844-45	3,350
1777-78	752	1811-12	3,782	1845-46	4,466
1778-79	717	1812-13	2,727	1846-47	3,698
1779-80	552	1813-14	3,368	1847-48	4,036
1780-81	790	1814-15	3,761	1848-49	2,424
1781-82	701	1815-16	3,549	1849-50	2,809
1782-83	654	1816-17	3,145	1850-51	2,614
1783-84	775	1817-18	2,679		

LOWER MEDWAY NAVIGATION 6 (1823)

Year	£	Year	£	Year	£
1823-24	857	1831-32	1,160	1844-45	3,193
1824-25	2,859	1832-38	m	1845-46	1,915
1825-26	6,584	1839-40	1,893	1846-47	910
1826-27	3,082	1840-41	1,258	1847-48	890
1827-28	561	1841-42	827	1848-49	1,256
1828-29	682	1842-43	1,977	1849-50	4,606
1929930	495	1843-44	2,306	1850-51	1,116
1830-31	787				

NENE NAVIGATION 75 (1725)

Year	£	Year	£	Year	£
1769-70	1,039	1796-97	708	1823-24	497
1770-71	628	1797-98	630	1824-25	807
1771-72	689	1798-99	544	1825-26	2,319
1772-73	1,026	1799-1800	577	1826-27	744
1773-74	773	1800-01	718	1827-28	1,753
1774-75	751	1801-02	626	1828-29	1,638
1775-76	563	1802-03	648	1829-30	1,205
1776-77	540	1803-04	460	1830-31	1,971
1777-78	629	1804-05	442	1831-32	1,747
1778-79	617	1805-06	400	1833-34	1,472
1779-80	619	1806-07	904	1834-35	1,219
1780-81	538	1807-08	707	1835-36	1,570
1781-82	457	1808-09	399	1836-37	1,068
1782-83	443	1809-10	432	1837-38	950
1783-84	526	1810-11	392	1838-39	1,070
1784-85	693	1811-12	553	1839-40	1,410
1785-86	677	1812-13	532	1840-41	1,140
1786-87	658	1813-14	800	1841-42	1,090
1787-88	687	1814-15	973	1842-43	1,120
1788-89	591	1815-16	599	1843-44	850
1789-90	828	1816-17	561	1944-45	850
1790-91	925	1817-18	1,004	1945-46	850
1791-92	767	1818-19	1,426	1846-47	250
1792-93	920	1819-20	753	1847-48	120
1793-94	1,057	1820-21	664	1848-49	63
1794-95	1,017	1821-22	661		
1795-96	1,254	1822-23	550		

NUTBROOK CANAL ACCOUNTS 4 (1793)

Year	£	Year	£	Year	£
1827-28	781	1835-36	444	1843-44	421
1828-29	544	1836-37	479	1844-45	359
1829-30	637	1837-38	449	1845-46	296
1830-31	471	1838-39	546	1846-47	360
1831-32	478	1839-40	432	1847-48	360
1832-33	523	1840-41	408	1848-49	321
1833-34	446	1841-42	432	1849-50	320
1834-35	447	1842-43	516	1850-51	359

OUSE NAVIGATION - YORK 70 (1732)

1761-62	174	1787-88	271	1810-11	1,781
1762-63	291	1788-89	562	1811-12	1,243
1763-64	197	1789-90	390	1812-13	1,186
1764-65	240	1790-91	289	1813-14	1,089
1765-66	185	1791-92	425	1814-15	1,639
1766-67	182	1792-93	m	1815-16	1,327
1767-68	179	1793-94	509	1816-17	1,026
1768-69	372	1794-95	462	1817-18	1,056
1769-70	277	1795-96	373	1818-19	986
1770-74	m	1796-97	893	1819-20	3,554
1774-75	544	1797-98	287	1820-21	1,012
1775-76	399	1798-99	920	1821-22	1,468
1776-77	846	1799-1800	709	1822-23	1,922
1777-78	293	1800-01	799	1823-24	1,136
1778-79	549	1801-02	799	1824-25	1,567
1779-80	740	1802-03	492	1825-26	3,289
1780-81	577	1803-04	1,005	1826-27	1,327
1781-82	196	1804-05	1,171	1827-28	1,562
1782-83	335	1805-06	536	1828-29	1,654
1783-84	670	1806-07	1,007	1829-30	1,516
1784-85	335	1807-08	574	1830-31	1,476
1785-86	254	1808-09	937	1831-32	905
1786-87	276	1809-10	1,284	1832-33	1,692

OXFORD CANAL COMPANY 91 (1769)

Year	£	Year	£	Year	£
(To 1773	62,587)*	1800-01	13,741	1826-27	9,391
1773-74	12,689	1801-02	17,788	1827-28	20,075
1774-75	24,815	1802-03	11,778	1828-29	12,696
1775-76	16,550	1803-04	10,995	1829-30	14,604
1776-77	26,353	1804-05	11,528	1830-31	22,569
1777-78	29,578	1805-06	11,140	1831-32	17,831
1779-80	1,878	1806-07	10,532	1832-33	8,794
1780-81	5,446	1807-08	9,445	1833-34	8,386
1781-82	2,273	1808-09	16,533	1834-35	11,171
1782-83	2,117	1809-10	4,967	1835-36	14,127
1783-84	1,501	1810-11	10,621	1836-37	9,847
1784-85	966	1811-12	14,019	1837-38	11,197
1785-86	7,282	1812-13	14,559	1838-39	12,740
1786-87	13,647	1813-14	17,052	1839-40	15,323
1787-88	13,403	1814-15	16,150	1840-41	13,965
1788-89	9,656	1815-16	16,281	1841-42	13,938
1789-90	6,283	1816-17	12,322	1842-43	12,895
1790-91	5,446	1817-18	8,967	1843-44	11,984
1791-92	9,677	1818-19	11,917	1844-45	11,912
1792-93	10,142	1819-20	11,806	1845-46	12,748
1793-94	9,978	1820-21	12,147	1846-47	11,758
1794-95	9,374	1821-22	10,971	1847-48	10,538
1795-96	9,472	1822-23	9,943	1848-49	10,550
1796-97	11,318	1823-24	9,935	1849	8,251
1797-98	12,919	1824-25	10,960	1849-50	11,503
1798-99	9,258	1825-26	10,199	1850-51	8,728

RIVER PARRETT NAVIGATION 12 (1836)

Year	£	Year	£	Year	£
1836-37	6,823	1841-42	893	1846-47	228
1837-38	5,977	1842-43	425	1847-48	242
1838-39	11,136	1843-44	372	1848-49	253
1839-40	9,807	1844-45	352	1849-50	241
1840-41	3,559	1845-46	281	1850-51	280

POCKLINGTON CANAL 9 (1815)

1819-20	900	1828-29	360	1837-38	300
1820-21	580	1829-30	334	1838-39	570
1821-22	300	1830-31	460	1839-40	270
1822-23	296	1831-32	290	1840-41	280
1823-24	260	1832-33	444	1841-42	295
1824-25	230	1833-34	330	1842-43	275
1825-26	450	1834-35	350	1843-44	345
1826-27	360	1835-36	345	1844-45	310
1827-28	425	1836-37	293		

PORTSMOUTH AND ARUNDEL NAVIGATION 5 (1817)

1830 1,959

ROCHDALE CANAL ACCOUNTS 35 (1794)

1793-95	29,947	1799-1800	43,803	1805-24	m
1796	47,252	1800-01	26,879	1824-25	23,459
1796-97	130,986	1801-03	72,612	1825-33	m
1797-99	82,111	1804-05	56,636	1833-34	10,360

ROYAL MILITARY CANAL 30 (1807)

Year	£	Year	£	Year	£
1807-08	7,751	1817-18	1,642	1826-27	1,134
1808-09	14,630	1818-19	1,375	1827-28	1,171
1809-10	11,890	1819-20	1,030	1828-29	1,003
1810-11	5,267	1820-21	957	1829-30	774
1811-12	5,010	1821-22	1,014	1830-31	1,421
1812-13	5,552	1822-23	1,405	1831-32	m
1813-14	2,145	1823-24	1,123	1832-33	931
1814-15	1,198	1824-25	1,094	1833-34	1,292
1815-16	1,337	1825-26	;,525	1834-35	1,215
1816-17	1,998				

SEVERN COMMISSION 42 (1503 see text)

1843-44	78,538	1845-46	9,743	1847-48	868
1844-45	55,896	1846-47	26,415		

SHEFFIELD CANAL 4 (1815)

1820-21	1,810	1838-39	2,296	1841-42	1,564
1830-31	2,290	1839-40	2,641	1842-43	1,414
1837-38	2,570	1840-41	1,920	1843-44	1,180

SHROPSHIRE UNION CANAL (62 see text)

1848-49	65,538
1849-50	22,153

SOMERSET COAL CANAL LOCK FUND 11 (1794)

1811-12	1,216

SOUTHAMPTON AND SALISBURY CANAL 7? (1795)

Year	£	Year	£	Year	£
1793-94	315	1797-98	24,143	1801-02	1,837
1794-95	81	1798-99	8,355	1802-03	3,852
1795-96	1,643	1799-1800	627		
1796-97	18,305	1800-01	1,385		

STOUR NAVIGATION - (Suffolk) 36 (1705)

1824-25	191	1833-34	220	1842-43	1,724
1825-26	257	1834-35	201	1843-44	946
1826-27	248	1835-36	318	1844-45	1,066
1827-28	96	1836-37	1,463	1845-46	1,182
1828-29	185	1837-38	2,641	1846-47	1,128
1829-30	212	1838-39	3,947	1847-48	1,087
1830-31	481	1839-40	4,429	1848-49	1,858
1831-32	232	1840-41	2,193	1849-50	713
1832-33	163	1841-42	1,875	1850-51	662

STOWMARKET NAVIGATION 16 (1790)

Year	£	Year	£	Year	£
1790-91	3,477	1809-10	771	1828-29	670
1791-92	6,539	1810-11	1,506	1829-30	632
1792-93	8,847	1811-12	1,309	1830-31	583
1793-94	4,426	1812-13	1,468	1831-32	1,069
1794-95	932	1813-14	1,279	1832-33	889
1795-96	1,110	1814-15	1,100	1833-34	921
1796-97	530	1815-16	1,193	1834-35	1,213
1797-98	300	1816-17	892	1835-36	1,169
1798-99	650	1817-18	1,147	1836-37	990
1799-1800	651	1818-19	740	1837-38	1,415
1800-01	575	1819-20	756	1838-39	1,330
1801-02	1,056	1820-21	871	1839-40	1,728
1802-03	253	1821-22	586	1840-41	1,411
1803-04	872	1822-23	703	1841-42	1,487
1804-05	1,435	1823-24	674	1842-43	1,380
1805-06	980	1824-25	849	1843-44	1,062
1806-07	427	1825-26	628	1844-45	1,134
1807-08	440	1826-27	754	1845-46	1,415
1808-09	965	1827-28	781		

STRATFORD-UPON-AVON CANAL 25 (1793)

1842-43	1,945	1844-45	1,302	1846-47	1,996
1843-44	971	1845-46	662		

SWANSEA CANAL 17 (1794)

Year	£	Year	£	Year	£
1813-14	1,172	1826-27	2,292	1839-40	5,077
1841-15	1,019	1827-28	1,245	1840-41	1,747
1815-16	960	1828-29	2,340	1841-42	1,560
1816-17	1,026	1829-30	902	1842-43	1,554
1817-18	825	1830-31	1,489	1843-44	1,269
1818-19	1,271	1831-32	m	1844-45	1,496
1819-20	1,056	1832-33	1,446	1845-46	2,294
1820-21	1,380	1833-34	2,051	1846-47	4,034
1821-22	653	1834-35	1,151	1847-48	2,108
1822-23	1,152	1835-36	937	1848-49	1,790
1823-24	1,163	1836-37	1,265	1849-50	1,505
1824-25	1,010	1837-38	1,571	1850-51	916
1825-26	997	1838-39	2,266		

STROUDWATER NAVIGATION ACCOUNTS 8 (1776)

Year	£	Year	£	Year	£
1777-78	8,992	1809-10	649	1829-30	1,833
1778-79	9,495	1810-11	825	1830-33	m
1779-80	3,930	1811-12	971	1834-35	1,236
1780-81	2,883	1812-13	1,215	1835-36	927
1781-82	1,941	1813-14	1,436	1836-37	m
1782-83	1,790	1814-15	949	1838-39	1,193
1783-84	2,215	1815-16	1913	1839-40	1,315
1784-85	1,643	1816-17	m	1840-41	m
1785-86	468	1817-18	1,351	1841-42	1,750
1786-87	910	1818-19	310	1842-43	1,671
1787-88	383	1819-20	1,598	1843-44	1,724
1788-89	404	1820-21	1,928	1844-45	1,091
1789-90	273	1821-22	1,082	1845-47	m
1790-1806	m	1822-23	1,727	1848-49	414
1807-08	778	1823-24	1,762	1849-50	1,039
1808-09	641	1824-28	m		

TAVISTOCK CANAL 4 (1803)

Year	£	Year	£	Year	£
1803-04	2,375	1819-20	1,198	1835-36	290
1804-05	6,160	1820-21	486	1836-37	318
1805-06	6,484	1821-22	290	1837-38	334
1806-07	6,391	1822-23	627	1838-39	371
1807-08	5,953	1823-24	668	1839-40	354
1808-09	4,961	1824-25	465	1840-41	395
1809-10	4,521	1825-26	433	1841-42	393
1810-11	2,561	1826-27	374	1842-43	300
1811-12	10,638	1827-28	580	1843-44	898
1812-13	3,309	1828-29	295	1844-45	870
1813-14	3,952	1829-30	293	1845-46	486
1814-15	3,605	1830-31	321	1846-47	529
1815-16	3,594	1831-32	250	1847-48	397
1816-17	4,296	1832-33	375	1848-49	308
1817-18	3,241	1833-34	370	1849-50	289
1818-19	1,376	1834-35	287	1850-51	355

THAMES COMMISSIONERS 76? (1771)

	Year	£		Year	£
3 upper districts	1787-88	1,071		1830-31	2,684
	1788-89	1,455		1831-32	1,075
	1789-90	1,707		1832-33	1,498
	1791-92	526		1832-40	m
	1792-93	344		1840-41	6,215
	1793-94	230		1841-42	6,479
	1794-95	196		1842-43	6,746
	1795-96	362		1843-44	8,260
	1796-97	633		1844-45	7,358
	1797-98	255		1845-46	6,045
	1798-1820	missing (see text)		1846-47	5,493
	1821-22		751 (¾ yr.) All districts	1847-48	5,339
	1822-25	missing (see text)	Staines to Lechlade	1848-49	5,353
	1826-27		1,057	1849-50	5,016
	1827-29		m	1850-51	4,562

THAMES NAVIGATION 70? 1774

Year	£	Year	£	Year	£
1785	1,693	1808	4,171	1828-29	7,402
1786	1,270	1809	2,438	1829-30	7,177
1787-	4,773	1810	7,773	1830-31	7,846
1788	3,745	1811	25,944	1831-32	9,520
1789	4,820	1812	34,028	1832-33	7,999
1790	10,242	1813	43,692	1833-34	8,014
1791	8,011	1814	22,039	1834-35	6,225
1792	4,518	1813-14	21,869	1835-36	6,697
1793	1,464	1814-15	30,401	1836-37	7,646
1794	1,471	1815-16	21,185	1837-38	7,202
1795	1,704	1816-17	8,407	1838-39	8,001
1796	m	1817-18	4,928	1839-40	8,330
1797	2,039	1818-19	4,246	1840-41	8,716
1798	2,042	1819-20	4,820	1841-42	7,459
1799	1,347	1820-21	3,589	1842-43	6,724
1800	1,538	1821-22	3,848	1843-44	6,042
1801	1,712	1822-23	6,695	1844-45	5,867
1802	1,731	1823-24	5,199	1845-46	6,249
1803	2,446	1824-25	5,466	1846-47	6,172
1804	2,438	1825-26	5,416	1847-48	5,797
1805	1,844	1826-27	7,122	1848-49	3,405
1807	4,763	1827-28	6,265	1849-50	3,818

THAMES AND SEVERN CANAL 30 (1783)

Year	£	Year	£	Year	£
1796-97	2,804	1815-16	3,357	1833-34	2,720
1797-98	2,791	1816-17	2,628	1834-35	3,067
1798-99	3,005	1817-18	2,379	1835-36	2,844
1799-1800	2,160	1818-19	2,606	1836-37	2,661
1800-01	3,202	1819-20	2,764	1837-38	2,941
1801-02	3,214	1820-21	3,268	1838-39	3,181
1802-03	3,590	1821-22	3,320	1839-40	2,494
1803-04	1,952	1822-23	3,301	1840-41	2,965
1804-05	2,600	1823-24	2,835	1841-42	2,984
1805-06	1,868	1824-25	3,111	1842-43	2,964
1806-07	1,849	1825-26	2,923	1843-44	3,001
1807-08	2,074	1826-27	3,181	1844-45	3,266
1808-09	2,198	1827-28	3,234	1845-46	2,636
1809-10	2,552	1828-29	3,675	1846-47	3,062
1810-11	3,097	1829-30	3,227	1847-48	2,771
1811-12	3,251	1830-31	2,961	1848-49	2,779
1812-13	2,390	1831-32	2,695	1849-50	2,579
1813-14	3,630	1832-33	2,774	1850-51	2,788
1814-15	3,001				

TONE NAVIGATION ACCOUNTS 27 (1699)

Year	£	Year	£	Year	£	Year	£
1750-51	144	1776-77	283	1801-02	640	1826-27	1,157
1751-52	59	1777-78	300	1802-03	595	1827-28	601
1752-53	75	1778-79	203	1803-04	520	1828-29	m
1753-54	81	1779-80	149	1804-05	979	1829-30	279
1754-55	76	1780-81	120	1805-06	643	1830-31	1,168
1755-56	72	1781-82	210	1806-07	464	1831-32	m
1756-57	83	1782-83	154	1807-08	758	1832-33	228
1757-58	72	1783-84	221	1808-09	536	1833-34	691
1758-59	67	1784-85	197	1809-10	1,009	1834-35	1,575
1759-60	80	1785-86	161	1810-11	668	1835-36	288
1760-61	80	1786-87	206	1811-12	804	1836-37	239
1761-62	80	1787-88	246	1812-13	1,180	1837-38	210
1762-63	69	1788-89	187	1813-14	1,225	1838-39	219
1763-64	819	1789-90	216	1814-15	1,400	1839-40	228
1764-65	570	1790-91	207	1815-16	890	1840-41	267
1765-66	312	1791-92	255	1816-17	1,167	1841-42	255
1766-67	83	1792-93	187	1817-18	1,501	1842-43	253
1767-68	67	1793-94	316	1818-19	904	1843-44	156
1768-69	66	1794-95	487	1819-20	1,093	1844-45	170
1769-70	147	1795-96	356	1820-21	758	1845-46	173
1770-71	131	1796-97	171	1821-22	901	1846-47	186
1771-72	128	1797-98	317	1822-23	1,517	1847-48	166
1772-73	115	1798-99	905	1823-24	1,904	1848-49	160
1773-74	273	1799-1800	371	1824-25	862	1849-50	249
1774-75	246	1800-01	578	1825-26	928	1850-51	196
1775-76	311						

TRENT NAVIGATION 72 (1699)

Year	£	Year	£
1798-99	4,424	1819-20	10,215
1799-1800	14,970	1820-21	m
1800-01	13,518	1821-22	7,907
1801-02	11,129	1822-23	7,978
1802-03	5,585	1823-25	m
1803-04	5,904	1826-27	10,794
1804-05	4,156	1827-28	7,120
1805-06	5,312	1828-29	7,851
1806-07	3,142	1829-30	6,644
1807-08	5,883	1830-31	7,275
1808-09	3,890	1831-32	6,989
1809-10	4,204	1832-33	7,181
1810-11	5,327	1833-34	7,915
1811-12	5,205	1834-35	6,500
1812-13	4,838	1835-36	5,368
1813-14	5,881	1836-37	6,715
1814-15	9,200	1837-38	6,423
1815-16	m	1838-39	6,745
1815-17	6,203	1839-40	8,578
1817-18	6,126		
1818-19	8,407	1840-41	8,912

WEAVER NAVIGATION 24 (1721)

Year	£	Year	£	Year	£
1761-62	5,891	1798-99	5,257	1825-26	10,743
1762-63	4,464	1799-1800	5,937	1826-27	13,128
1763-64	3,039	1800-01	6,893	1827-28	9,012
1764-65	2,059	1801-02	8,283	1828-29	6,942
1765-66	3,868	1802-03	7,816	1829-30	8,982
1767-68	1,462	1803-04	6,417	1830-31	12,228
1769-70	2,111	1804-05	5,942	1831-32	9,366
1771-72	2,995	1805-06	6,118	1832-33	10,277
1772-73	3,678	1806-07	8,309	1833-34	15,245
1780-81	11,354	1807-08	20,872	1834-35	16,886
1781-82	5,487	1808-09	25,846	1835-36	15,251
1782-83	7,165	1809-10	13,402	1836-37	8,310
1783-84	5,793	1810-11	11,532	1837-38	13,122
1784-85	8,452	1811-12	9,735	1838-39	16,685
1785-86	4,943	1812-13	10,486	1839-40	15,314
1786-87	8,584	1813-14	9,160	1840-41	22,026
1787-88	6,118	1814-15	8,144	1841-42	18,835
1788-89	4,635	1815-16	12,076	1842-43	16,188
1789-90	4,220	1816-17	8,103	1843-44	21,111
1790-91	5,688	1817-18	12,945	1844-45	23,900
1791-92	4,643	1818-19	10,671	1845-46	21,100
1792-93	5,998	1819-20	12,076	1846-47	17,890
1793-94	5,773	1820-21	9,506	1847-48	17,037
1794-95	5,247	1821-22	6,860	1848-49	22,059
1795-96	6,252	1822-23	8,650	1849-50	18,620
1796-97	5,775	1823-24	7,525	1850-51	17,773
1797-98	5,306	1824-25	9,080		

WEY AND ARUN CANAL 18 (1813)

Year	£	Year	£	Year	£
1811-12	289	1823-24	886	1834-35	1,239
1812-13	799	1824-25	1,225	1835-36	849
1813-14	14,109	1825-26	966	1836-37	1,078
1814-15	32,716	1826-27	1,036	1837-38	1,430
1815-16	29,314	1827-28	963	1838-39	1,125
1816-17	21,802	1828-29	1,003	1839-40	1,686
1817-18	3,708	1829-30	979	1840-41	805
1818-19	1,491	1830-31	784	1841-42	909
1819-20	3,384	1831-32	996	1842-43	370
1820-21	4,901	1832-33	1,167	1843-44	763
1821-22	1,274	1833-34	1,186	1844-45	671
1822-23	1,362				

WEY NAVIGATION 20 (1671)

Year	£	Year	£	Year	£
1750-52	678	1778-79	1,309	1779-1800	1,270
1751-52	1,357	1779-80	1,314	1800-01	1,240
1752-53	750	1780-81	1,156	1801-02	1,166
1753-54	908	1781-82	802	1802-03	1,591
1754-55	900	1782-83	1,255	1803-04	1,181
1755-56	735	1783-84	1,314	1804-05	1,209
1756-57	1,216	1784-85	1,644	1805-06	1,166
1757-64	m	1785-86	1,520	1806-07	964
1764-65	1,400	1786-87	1,338	1807-08	1,038
1765-66	m	1787-88	1,229	1808-09	1,207
1767-68	3,395	1788-89	1,240	1809-10	1,423
1768-69	1,847	1789-90	1,482	1810-11	1,093
1769-70	3,125	1790-91	977	1811-12	1,141
1770-71	3,190	1791-92	1,005	1812-13	1,263
1771-72	2,709	1792-93	2,170	1813-14	1,079
1772-73	1,758	1793-94	1,568	1814-15	1,151
1773-74	1,577	1794-95	1,152	1815-16	1,133
1774-75	1,343	1795-96	1,244	1816-17	1,051
1775-76	902	1796-97	1,383	1817-18	1,005
1776-77	1,241	1797-98	1,388	1818-19	1,035
1777-78	973	1798-99	913	1819-20	1,190

WELLAND RIVER 22

Year	£	Year	£	Year	£
1772-73	2,605	1785-86	2,461	1797-98	979 - 1,000?
1774-75	8,474	1786-87	1,491	1798-99	1,838
1775-76	11,649	1787-88	1,489	1799-1800	4,037
1776-77	5,954	1788-89	1,088	1800-01	5,496
1777-78	3,964	1789-90	908	1801-02	5,706
1778-79	2,619	1790-91	1,459	1802-03	5,549
1779-80	1,789	1791-92	1,250	1803-04	7,262
1780-81	1,261	1792-93	910	1804-05	5,708
1781-82	1,226	1793-94	1,514	1805-06	3,586
1782-83	1,220	1794-95	1,165	1806-07	4,471
1783-84	1,162	1795-96	2,438	1807-08	2,024
1784-85	872	1796-97	1,636	1808-09	1,517

Year	£	Year	£	Year	£
1795-96	2,994	1814-15	7,761	1833-34	5,444
1796-97	6,780	1815-16	7,666	1834-35	5,302
1797-98	12,351	1816-17	8,213	1835-36	5,249
1798-99	10,838	1817-18	7,360	1836-37	5,370
1799-1800	7,810	1818-19	4,890	1837-38	4,871
1800-01	7,454	1819-20	7,171	1838-39	5,048
1801-02	7,763	1820-21	10,301	1839-40	5,329
1802-03	14,363	1821-22	5,251	1840-41	10,448
1803-04	12,232	1822-23	6,280	1841-42	7,408
1804-05	18,684	1823-24	5,215	1842-43	3,636
1805-06	17,717	1824-25	7,756	1843-44	3,494
1806-07	21,062	1825-26	6,076	1844-45	3,317
1807-08	16,334	1826-27	m	1845-46	3,411
1808-09	m	1827-28	5,252	1846-47	3,307
1809-10	37,198	1828-29	5,011	1847-48	3,991
1810-11	11,907	1829-30	5,434	1848-49	3,590
1811-12	10,543	1830-31	5,571	1849-50	3,031
1813-14	8,077	1831-32	5,512	1850-51	2,991
		1832-33	5,551		

WISBECH NAVIGATION 16

Year	£	Year	£	Year	£
1827-28	36,150	1830-31	40,135	1833-34	5,741
1828-29	44,237	1831-32	9,112	1834-35	3,737
1829-30	43,633	1832-33	40526	1835-36	2,900
				1836-37	1,793

WITHAM NAVIGATION 32 (1671)

1815-16(½yr)	7,670	1829-30	18,623	1840-41	1,692
1816-18	m	1830-31	6,723	1841-42	1,217
1818-19(½yr)	562	1831-32	3,868	1842-43	1,472
1819-20	m	1832-33	4,104	1843-44	1,370
1820-21	1,416	1833-34	889	1844-45	1,114
1821-24	m	1834-35	1,251	1845-46	1,623
1824-25	1,508	1835-36	1,385	1846-47	1,037
1825-26	m	1836-37	857	1847-48	322
1826-27	13,726	1837-38	681	1848-49	370
1827-28	30,730	1838-39	855	1849-50	298
1828-29	11,029	1839-40	1,081	1850-51	86

APPENDIX F

LAPSED ACTS

APPENDIX F

Columns one and two of Table XXXIX below illustrate the full discrepancy between the number of turnpikes in existence each year according to the present study and the number of roads as listed by Dr. Albert. Undoubtedly part of the dissimilarity arises in the problem of discriminating between the mere passing of an act and genuine activity to improve a road, although equally the problem is one of identification.

The list of turnpike acts in Appendix B of Dr. Albert's thesis on English Turnpike Roads, op. cit. was found to tally precisely with well over half the 820 roads derived from the parliamentary returns in the course of the present study. Further investigation with the assistance of detailed local studies positively identified another 113 roads from the returns with those on Albert's list. However, the list was discovered to be inaccurate for the purposes of this investigation, because it contained acts which were passed but subsequently lapsed with little or nothing done to the roads concerned. There were 32 instances of this in the eight counties checked from local studies. Examples of roads which lapsed intentionally or unintentionally or were simply never constructed are set out by Arthur Cossons in his "The Turnpike Roads of Nottinghamshire", Historical Association Pamphlet No. 97, 1934, "Warwickshire Turnpikes", Transactions of the Birminghan Archaeological Society, Vol. LXIV, "The Turnpike Roads of Northamptonshire" with the Stoke of Peterborough", Northamptonshire Past and Present, Vol. 3 "The Turnpike Roads of Norfolk", Norfolk Archaeology, Vol. XXX, "Roads", Victoria County History of Wiltshire, Vol. IV. F.G. Emmison,

"Turnpike Roads and Tollgates of Bedfordshire" in Bedforshire Historical Record Society, Vol. 3, cites examples of lapsed trusts for that county, and G.H. Tupling, op. cit. mentions several Lancashire roads for which acts were passed but no further action was taken.

Thus:

1727	Chippenham - Toghill Road	Wilts.	13 Geo.I.c.13
1752	Trowbridge - Eddington Road	Wilts.	25 Geo.II.c.24
1753	Oundle - Alconbury	Northants.	26 Geo.II.c.88
1754	Bedford - Newport-Pagnell	Beds.	27 Geo.II.c.14
1757	Melksham - Castlecoombe	Wilts.	30 Geo.II.c.41
1758	Christian-Malford - Shillingford	Wilts.	31 Geo.II.c.66
1762	Whitesheet - Hernham Hill	Wilts.	2 Geo.III.c.66
1767	Northfield - Wooton	Warwicks.	7 Geo.III.c.68
1767	Hatton - Bromsgrove	Warwicks.	7 Geo.III.c.81
1769	Stoney Stratford - Woodstock	Northants.	9 Geo.III.c.88
1770	Norwich - Block Hill	Norfolk	10 Geo.III.c.54
1792	Thetford - Bury St.Edmunds	Norfolk	32 Geo.III.c.148
1804	West Bromwich - Sutton Coldfield	Warwicks.	44 Geo. III.c.40
1817	Manchester - Newton Chapel	Lancs.	57 Geo.III.c.47
1825	Bolton - Haslingden	Lancs.	6 Geo.IV.c.92
1830	Allesley - Carwell	Warwicks.	11 Geo.IV.c.20
1832	New Windsor - Hurst	Wilts.	2 & 3 Wm.IV.c.17

are among roads specified in the above articles as lapsing or never constructed, and it is likely that there were other examples in the remaining counties.

Of the remaining 244 roads derived from the parliamentary returns, 40 could not be identified either in Albert's list or in the 1820's returns and it has therefore been necessary to estimate a date of origin for these. This process of estimation is not so unreasonable as might appear because turnpiking seems to have been carried out in defined ways in various localities (see Albert, op. cit.), although it is possible that some of these roads had lapsed.

The other 204 roads from parliamentary returns had to rely entirely on that source for their dates of origin because they could not be unequivocally unidentified in Albert's list. If it is assumed that 50% of these have accurate dates of origin this leaves 102 roads plus 40 unknown as dubious; five sixths of the total have therefore had their dates of origin, mileage, and existence ascertained with a reasonable degree of accuracy.

The full extent of the confusion between parliamentary activity and actual construction work is further illustrated by the series of Bills and Acts set out below in Table XL. Column one shows Gayer, Rostow and Schwartz's list(1) of turnpike bills. This bears little relation to the number of acts set out in Table XL above, only tallying in nine cases altogether between 1788 and 1819, six times with Albert's list and three times with the present study. This discrepancy is emphasised by column three of Table XL which is merely a reproduction for ease of comparison of column one of Table XXXIX, Possibly the 1819 Committee(2) from which Gayer, Rostow and Schwartz drew their figures, encountered some difficulty even at this time in obtaining accurate information.(3) This may have caused it to overlook some turnpike bills although much of the lack of correlation is undoubtedly accounted for by bills which failed to pass.

Column two of Table XL comprises the list of road acts

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(1) Gayer, Rostow and Schwartz, op. cit. pp. 69, 95, 121, 147.
(2) P.P. 1819, III, 291,
(3) Webbs', King's Highway, p.148, note to p.116 for full legislative confusion.

from Marshall's Digest of All Accounts.[1] But since this would appear to include renewal acts, its usefulness is limited to illustrating the scale of the waste of resources through renewal acts and if each is arbitrarily assumed to have cost £300 this would give in the region of £20,000 per annum for most of the years covered by Marshall's list.

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(1) P.175 of part II.

TABLE XXXIX. TURNPIKE ACTS

Year	Present Study		Albert's Study			Present Study		Albert's Study	
1750-51	97		147		1786-87	5	554	3	597
1751-52	18	115	10	157	1787-88	5	559	3	600
1752-53	22	137	22	179	1788-89	6	565	6	606
1753-54	22	159	33	212	1789-90	9	574	7	613
1754-55	16	175	22	234	1790-91	13	587	3	616
1755-56	17	192	19	253	1791-92	5	592	5	621
1756-57	16	208	22	275	1792-93	14	606	13	634
1757-58	10	218	14	289	1793-94	27	633	19	653
1758-59	19	237	16	305	1794-95	6	639	8	661
1759-60	28	265	21	326	1795-96	7	646	7	668
1760-61	18	283	15	341	1796-97	5	651	5	673
1761-62	11	294	13	354	1797-98	7	658	11	684
1762-63	36	330	27	381	1798-99	2	660	0	684
1763-64	11	341	9	390	1799-1800	5	665	1	685
1764-65	18	359	19	409	1800-01	5	670	3	688
1765-66	32	391	30	439	1801-02	5	675	8	696
1766-67	17	408	18	457	1802-03	9	684	8	704
1767-68	11	419	13	470	1803-04	9	693	7	711
1768-69	15	434	9	479	1804-05	1	694	4	715
1769-70	11	445	17	496	1805-06	3	697	2	717
1770-71	31	476	24	520	1806-07	5	702	4	721
1771-72	8	484	13	533	1807-08	6	708	6	727
1772-73	10	494	13	546	1808-09	7	715	4	731
1773-74	6	500	14	560	1809-10	10	725	13	744
1774-75	0	500	1	561	1810-11	14	739	12	756
1775-76	0	500	1	562	1811-12	10	749	9	765
1776-77	3	503	2	564	1812-13	11	760	13	778
1777-78	11	514	11	575	1813-14	8	768	3	781
1778-79	5	519	4	579	1814-15	8	776	10	791
1779-80	10	529	2	581	1815-16	10	786	4	795
1780-81	8	537	2	583	1816-17	8	794	5	800
1781-82	2	539	3	586	1817-18	5	799	7	807
1782-83	4	543	4	590	1818-19	10	809	10	817
1783-84	0	543	2	592	1819-20	7	816	5	822
1784-85	2	545	0	592	1820-21	6	822	3	825
1785-86	4	549	2	594	1821-22	0	822	1	826

TABLE XL. LAPSED ACTS: TURNPIKE LEGISLATION

Year	Gayer, Rostow and Schwartz BILLS	Marshall Acts	Present Study Acts
1788-89			6
1789-90	1		9
1790-91	3		13
1791-92	4		5
1792-93	4		14
1793-94	6		27
1794-95	2		6
1795-96	2		7
1796-97	3		5
1797-98	4		7
1798-99	2		2
1799-1800	2		5
1800-01	3		5
1801-02	4	62	5
1802-03	4	49	9
1803-04	6	53	9
1804-05	2	45	1
1805-06	7	39	3
1806-07	2	54	5
1807-08	4	34	6
1808-09	4	48	7
1809-10	13	60	10
1810-11	12	60	14
1811-12	9	63	10
1812-13	8	59	11
1813-14	2	53	8
1814-15	8	58	8
1815-16	10	44	10
1816-17	6	35	8
1817-18	6	34	5
1818-19	7	44	10
1819-20		64	7
1820-21		49	6
1821-22		68	0
1822-23		58	
1823-24		69	
1824-25		73	
1825-26		88	
1826-27		63	
1827-28		51	
1828-29		66	
1829-30		58	
1830-31		70	
1831-32		48	
1832-33		37	

PRIMARY SOURCES

Aberdeen Public Library

Abstract Accounts of the Aberdeen Canal

Bedfordshire Record Office

Ouse Navigation Accounts, D.D.FN/1492c, 1493
Biggleswade - Alconbury Hill Turnpike Trust. Ledgers X40/2-8
Hitchen - Bedford Turnpike Trust. Treasurers' Accounts X46/12-13

Berkshire Record Office

Wiltshire and Berkshire Canal. Printed Annual Accounts, D/EFBI
Berkshire Parish Surveyors Accounts (See Appendix D for details)
Hungerford - Leckford Turnpike Trust Accounts, DELm/O17-45
Wallingford Turnpike Trust Accounts. DEh O1
Windsor Forest Road Accounts. DEgh O1
Quarter Sessions Records - General Turnpike Statements, 1822-33

Bodleian Library

Oxford Canal Accounts, 1772-1810, Dep. a 16

British Museum - Map Room

Assorted Canal and Railway Company Reports, 18.C. 1-6

British Transport Historical Records

Aire and Calder Navigation Accounts, ACN4/36, RAC Y 2/1-35
Ashby de la Zouch Canal Minutes, ASH C 1/1-5
Barnsley Canal Accounts, RAC 2/1-2
Basingstoke Canal Accounts, HRP 6/6
Birmingham Canal Accounts, BCN 4/14A, 14B, 364-366, 375
Brecknock and Abergavenny Canal Accounts, BAC 4/1-7
Calder and Hebble Navigation Accounts, CHN 4/2-22
Coventry Canal Accounts, CVC 4/99-104
Crinan Canal Accounts, CRI 23/22-24
Cromford Canal Accounts, RAC 2/5
Derwent Navigation Accounts, DER 23/1-30
Droitwich Canal Minutes, DRC 1/1
Dudley Canal Minutes, DDC 1/1-10
Don Navigation Accounts, DUN 1/1-3, 4/2
Edinburgh and Glasgow Union Canal Accounts, EGU 23/1-8
Ellesmere and Chester Canal Minutes, ECC 1/1-9
Erewasp Canal Minutes, EWC 1/1-4
Gloucester and Berkley Canal, GBC 1/1-2, RAC 2/8A
Grand Junction Canal. Minutes, GJC 1/1-11, Accounts, GJC 23/1-7,10,15
Grantham Canal RAC 2/8B

British Transport Historical Records, (cont.)

Hereford and Gloucester Canal Minutes, HGN 1/1-5
Huddersfield Canal Minutes, HUC 1/1-2, Accounts, HRP 6/8
Kennet and Avon Canal Accounts, KAC 23/1-22, 3/1-3, RAC 2/9[A], 9[B].
Lancaster Canal Accounts, RAC 2/11
Lee Navigation, LEE 23/1-7, 21
Leeds and Liverpool Canal Accounts, RAC 2/12
Leicester and Northamptonshire Union Canal Minutes, LNC 1/1-11
Macclesfield Canal Minutes, MCC 1/1-2
Nottingham Canal Minutes, NC 1/1-6
Oxford Canal Accounts, RAC 2/28, 29. 1791 -
Peak Forest Canal Minutes, PFC 1/1-8
Pocklington Canal Accounts, RAC 2/33[A]
Regents Canal Minutes, RGC 1/1-3, 5-12
Severn Commissioners Accounts, HPP 6/10
Sheffield Canal Minutes, SFC 4/1
Shropshire Canal Minutes, SHPC 1/1
Somerset Coal Canal Accounts, HRP 6/13
Staffordshire and Worcestershire Canal Minutes, STW 1/1-9
Stourbridge Canal Minutes, STN 1/1-13
Stratford-on-Avon Canal Minutes, SCN 1/1-4
Swansea Canal Accounts, SWC 4/3-5
Trent Navigation Accounts, RAC 2/47
Weaver Navigation Accounts, RAC 2/48
Worcester and Birmingham Canal Minutes, WoBC 1/1-13
Wyrley and Essington Canal Minutes, WEC 1/1-2
Warwick and Birmingham Canal WBC 1/1-3, 7-10

Buckinghamshire Record Office

Grand Junction Canal Accounts, D/W96/12, 27
Wendover Buckingham Turnpike Trust, IT/3/1
Quarter Sessions General Turnpike Trust Statements
Marlow Bridge Accounts, B/142/1, 2
Newport Pagnell Bridge Accounts, B/153/2

Cambridgeshire Record Office

Accounts of the Conservators of the River Cam, QS 9/1-3
Accounts of various drainage authorities in connexion with the Bedford Level, R 59/31/19/89-107, R 59/31/19/A1-38
Quarter Sessions General Turnpike Statements

Cheshire Record Office

Weaver Navigation Accounts, LNW 4/2-10

Chesterfield Public Library

Chesterfield Canal Accounts

Cornwall County Record Office

St. Austell - Lostwithiel Turnpike Trust Accounts, PDT/4
Helston Turnpike Trust Accounts, DDPH/659-661

Derbyshire Record Office

Nutbrook Canal Accounts
Duffield - Wirksworth Turnpike Trust Accounts
Quarter Sessions General Turnpike Statements

Devon Record Office

Tavistock Canal Accounts, L1258/2, 3, 12
Exeter T. Accounts, ETP 4/1-15
Quarter Sessions General Turnpike Statements

Dorset Record Office

Beaminster Trust Accounts, 1754-1812, 6268
Quarter Sessions General Turnpike Statements

Essex Record Office

Epping and Ongar Turnpike Trust, D/TE 8
Essex Turnpike Trust
Parish Surveyors Accounts, (see Appendix D)
Quarter Sessions General Turnpike Statements

Exeter City Record Office

Exeter Canal Accounts. City Receivers Accounts
Exeter Turnpike Trust Accounts, 25

Glamorgan Record Office

Glamorgan Canal, QAW 2

Gloucester Record Office

Thames and Severn Canal Accounts, TS 80-89, 158-161, 171-174
Stroudwater Navigation Accounts, D1180 2/1, 2, 68

Guildford Museum

Wey Navigation Accounts
Wey and Arun Canal Accounts

Hampshire Record Office

Basingstoke Canal Accounts, 8M62/131
Itchen Navigation, 13M48
Stockbridge - Winchester Turnpike Trust, 4M30/5-12
Winchester - Southampton Turnpike Trust, 4M30/12-19

Hertfordshire Record Office

Hockerill Turnpike Trust Accounts, TP3/8
Sparrows Herne Turnpike Trust Accounts, TP4/25-31
St. Albans Turnpike Trust Accounts, TP5/11-12
Stevenage - Biggleswade Turnpike Trust Accounts
Welwyn Turnpike Trust Accounts
Parish Surveyors Accounts, (see Appendix D)
Quarter Sessions Records - General Turnpike Statements

Kent Record Office

Upper Medway Navigation Accounts, FJ1-2, FCa1-5, FL1-13
Lower Medway Navigation, Q/Rua29
Deal, Sandwich Turnpike Trust Accounts, T11F1
Kipping Cross - Flinwell Turnpike Trust Accounts, T16
Kipping Cross - Willesley Green Turnpike Trust Accounts, T1/2, 3
New Cross Turnpike Trust Accounts, T9 F1/2, 3, 4, 5, 11. F 2/1, A 1/3
Stockershead - Chilham Turnpike Trust Accounts, T18/2
Tonbridge - Maidstone Turnpike Trust T2/3, 4
Wadhurst - Farleigh Turnpike Trust T5/1
Quarter Sessions Records - General Turnpike Statements

Leicester Museum

Leicester Canal Accounts

Leicestershire Record Office

Harborough - Loughborough Turnpike Trust Accounts, T/TA/1/1
Hinckley - Lutterworth Turnpike Trust Accounts, T/MB/2/1, 2
Wanlip Turnpike Trust Accounts, T/TA/8/1

Lincolnshire Record Office

Witham Navigation Accounts, BS4
Deeping Fen - Welland - Glen River Accounts
Louth Navigation Minutes
Lincoln Heath - Peterborough, S.E. district Accounts, (Smith 6)
Quarter Sessions Records - General Turnpike Statements

London

City Corporation, Guildhall Record Office
Isle of Dogs Canal and Port of London Accounts
Blackfriars Bridge Accounts, MS 45/9, 45/16-18, 33
Westminster Bridge Accounts
City Chamberlain's Thames Navigation Accounts - Guildhall Library
Greater London Record Office (Middlesex Records)
Edgeware Turnpike Trust Accounts, LA/HW/Tp21
Kilburn Turnpike Trust Accounts, LA/HW/Tp1-12
Quarter Sessions Records - General Turnpike Statements

London (cont.)

Hammersmith Public Library - Shepherds Bush
Hammersmith Bridge Accounts

Islington Public Libraries - Central Library
Islington Turnpike Trust Accounts

Kensington Public Libraries - Central Library
Kensington Turnpike Trust Accounts

Southwark Public Libraries - Newington District Library
Bermondsey, Rotherhithe and Deptford Turnpike Trust Accounts

Westminster Public Libraries - District Library
Marylebone Turnpike Trust Accounts

Wandsworth Public Libraries - Battersea District
Archives of Battersea Bridge Proprietors

Manchester Public Libraries

Manchester - Wilmslow Turnpike Trust Accounts, MSF350.042 M103

Northamptonshire Record Office

Bridgewater Canal Accounts, Ellesmere (Brackley) 1461
Leicester and Northampton Union Accounts, Isham Lamport 2743
Old Stratford - Northampton Turnpike Trust Accounts. Box N755
Stamford - Kettering Turnpike Trust Accounts, Boxes X63-X67
Parish Surveyors Accounts, (see Appendix D)
Quarter Sessions Records - General Turnpike Statements

Nottinghamshire Record Office

Nottingham Canal Accounts, Edge papers
Leadenham - Southwell Turnpike Trust Accounts, DDT27/1-2, TT3/2-3, DDM111/1-4, 55-57
Quarter Sessions Records - General Turnpike Statements

Nottingham University Library

Derby Canal Account, Dr E 64

Oxfordshire Record Office

Thames Navigation Commissioners Accounts

Public Record Office

Royal Military Canal Accounts, T 83 1
Fulham Bridge Accounts, P.R.O. 30/26, items 15 and 16
Scottish Military Road Accounts, A.0.3.81

Reading Public Library - Thames Commissioners Accounts

Rochdale Public Library

Rochdale Canal Accounts

Sheffield Public Library

Dearne and Dove Canal Accounts, ELM 405, 204p41

Somerset Record Office

Somerset Coal Canal Accounts
Tone Navigation Accounts, DD/MK
Wells Turnpike Trust Accounts, D/T/wel 8-10
Yeovil Turnpike Trust Accounts, D/T/yeo 24-5
Quarter Sessions Records - General Turnpike Statements

Somerset River Authority

Parrett Navigation Accounts

Southampton City Archives

Southampton and Salisbury Canal D/PM6

Shakespeare Birthplace Trust - Stratford on Avon

Stratford on Avon Canal Accounts

Staffordshire County Record Office

Cheadle Heath - Huntby District Accounts, D239/M
Quarter Sessions Records - General Turnpike Statements

Stamford Town Hall

"Philips" Collection including local canal prospectuses and reports

East Suffolk and Norfolk River Authority

Blyth Navigation Accounts

West Suffolk Record Office

Lark Navigation Accounts, E2/17/4

Sudbury (Suffolk) Town Hall

Stour Navigation Accounts

Surrey Record Office

Reigate Turnpike Trust Accounts, 68/2/1, 2, 3
Quarter Sessions Records - General Turnpike Statements

Sussex Archaeological Society

Portsmouth and Arundel Canal Account, SM/29-32

Swindon Central Library

Wiltshire and Berkshire Canal Accounts

Warwickshire Record Office

Banbury - Lutterworth Turnpike Trust Accounts
Stratford - Long Compton Turnpike Trust Accounts
Parish Surveyors Accounts (see Appendix D)
Quarter Sessions Records - General turnpike statements

Welland and Nene River Authority

Nene Navigation Accounts
Nene Outfall - Wisbech Navigation - Commissioners Accounts

West Riding of Yorkshire Archives, Wakefield

Boroughbridge - Ripon Turnpike Trust Accounts
Harrogate - Hutton Moor Turnpike Trust Accounts
Huddersfield - Penistone Turnpike Trust Accounts
Knaresborough - Pateley Bridge Turnpike Trust Accounts
Leeds- Harrogate Turnpike Trust Accounts
Ripon - Pateley Bridge Turnpike Trust Accounts
Skipton - Knaresborough Turnpike Trust Accounts
York - Tadcaster Turnpike Trust Accounts
Wakefield - Leeds Turnpike Trust Accounts
Quarter Sessions - General Turnpike Statements

East Riding of Yorkshire Record Office

Driffield Navigation Accounts, DDX/40/19
York - Garrowby Turnpike Trust

York Public Library

Ouse Navigation Accounts

Where reference numbers are not given, this is generally because the documents concerned have not been numbered and catalogued.

BIBLIOGRAPHY

W. Albert — "Justices Rates for Land Carriage Reconsidered", Transport History, 1968

" — English Turnpike Roads, 1660-1830, Ph.D. London, 1968

T.S. Ashton — Economic Fluctuations in England, (Oxford, 1959)

P. Bagwell — "The Railway Interest", J.T.H., Vol. VII

F.A. Bailey — "The Turnpike from Liverpool to Prescott", Trans. Hist. Soc. Lancs. & Ches., Vols. 88, 89.

T.C. Barker and M. Robbins — History of London Transport, (1963)

T.C. Barker — "Passenger Transport in 19th Century London", J.T.H. VI

D.G. Barnes — History of the English Corn Laws, (1930)

A. Bates — Stage Coach Directory of 1836, (Newton Abbot, 1969)

B. Baxter — Stone Blocks and Iron Rails, (1966)

M.J. Becher — Rochester Bridge, 1387-1856, (1930)

A. Bird — Roads and Vehicles, (1968)

M. Blaug — "The Poor Law Report Re-examined", J.E.H., 1963

D. Bremner — The Industries of Scotland, their Rise, Progress and Present Condition, (1st Ed. 1868)

H.C. Brookfield — Urban Development in Coastal Sussex since the 18th Century, Ph.D. London, 1950

A.K. Cairncross and B. Weber — "Fluctuations in Building in Great Britain, 1785-1849, E.H.R., Vol. IX, 1956

P. Carson — The Provision and Administration of Bridges over the Thames, M.A. Thesis, London, 1954

C.W. Chalklin — "Urban Housing Estates in the Eighteenth Century", Urban Studies, Vol. 5., No. 1.

A.J. Clark — Islington Turnpike Trust, M.A. Thesis, London, 1958

E.A. Clark — The Estuarine Ports of the Exe and Teign, Ph.D. Thesis, London, 1957

R. Craig — S.S.R.C. Conference Paper on Shipping and Docks, (to be published by Methuens in 1970)

K. Clew — The Kennet and Avon Canal, (1968)

A. Cossons — "The Turnpike Roads of Nottinghamshire, Historical Association, Pamphlet No. 97, 1934

" — "Warwickshire Turnpikes", Transactions of the Birmingham Archaeological Society, Vol. LXIV

" — "The Turnpike Roads of Northamptonshire with the Soke of Peterborough", Northampton Past and Present, Vol. 3

" — Article on "Roads", Victoria County History of Wiltshire, Vol. 4

" — "The Turnpike Roads of Norfolk", Norfolk Archaeology, Vol. XXX, 1951

R. Davis — The Rise of the English Shipping Industry in the 17th and 18th Centuries, (1962)

P. Deane and W. Cole — British Economic Growth, (Cambridge, 1964)

M. Desai — "Some Issues in Econometric History", E.H.R., Vol. XXI

G.C. Dickinson — "Stage Coach Services in the West Riding of Yorkshire" J.T.H., Vol. IV

A.E. Dodd — The Industrial Revolution in North Wales, (1933)

S. Dowell — A History of Taxation and Taxes in England, 2nd. Ed. 4 Vols. 1888

J. Dredge — Thames Bridges, (1897)

B. Duckham — The Yorkshire Ouse, (1967)

" — "Selby and the Aire and Calder Navigation", J.T.H. 1965

H.J. Dyos — Camberwell, (1965)

" — "Urban Transformation: a Note on the Object of Street Improvement in Regency and Early Victorian London", International Review of Social History, Vol. 2, (1957) Part II

F.G. Emmison — "Turnpike Roads and Toll Gates of Bedfordshire", Bedfordshire Historical Record Society, Vol. 3

" — Guide to the Essex Record Office, (1963 Ed.)

D. Morier Evans — The Commercial Crisis, 1847-8, (1st Ed. 1848)

C.H. Feinstein — Domestic Capital Formation in the U.K. 1920-1936, (Cambridge, 1968)

A. Fishlow — American Railroads and the Transpormation of the Anti-Bellum Economy, (Harvard, 1965)

R. Fogel — Railroads and American Economic Growth, (Baltimore, 1964)

E.F. Gay — "Arthur Young on Roads", Quarterly Journal of Economics Vol. XLI, (1927)

A.D. Gayer and W.W. Rostow — The Growth and Fluctuations of the British Economy (Oxford, 1953)

C. Goodrich — Canals and American Economic Development, (Columbia, 1961)

N.S.B. Gras — The English Cornmarket, Harvard Economic Studies, No. XIII, (1915)

C. Hadfield — "The Grand Junction Canal Company", J.T.H., Vol. 4

" — British Canals, (1950)

" — Atmospheric Railways, (Newton Abbot, 1968)

" — Canals of South Wales and the Border, (Newton Abbot, 1960)

" — Canals of the East Midlands, (Newton Abbot, 1966)

" — Canals of the West Midlands, (Newton Abbot, 1967)

" — The Canal Age, (Newton Abbot, 1968)

Hagin — On the Theory of Social Change, (1968)

A.R.B. Haldane — New Ways Through the Glens, (1962)

H. Hamilton — The Industrial Revolution in Scotland, (Oxford, 1963)

C.G. Harper — Stage Coach and Mail in Days of Yore, (1903)

V.A. Hatley — "The Blisworth Hill Railway, 1800-05", Northamptonshire Antiquarian Society Papers, (1962-3)

H.W. Hart — "Notes on Coach Travel", J.T.H., Vol. IV

E. Hobsbawm — Labouring Men, (1965)

G.H. Hopkinson — The Development of Mining and Communications in North Derbyshire and South Yorkshire, 1700-1850, Ph.D. Sheffield, (1958)

H. Household — "The Thames and Severn Canal", J.T.H., Vol. VII

M. Hughes — "Telford, Parnell and the Great Irish Road", J.T.H. Vol. VI, (1963-4)

B.C. Hunt — The Development of the Business Corporation in Britain, (Cambridge, 1936)

E. H. Hunt — "The New Economic History", History, Vol. VII, (1968)

W.T. Jackman — The Development of Transportation in Modern Britain, (1962)

J.R. Kellett — The Impact of Railways on Victorian Cities, (1969)

A.G. Kenwood — "Railway Investment in Britain, 1825-1875", Economica, (1964)

R.S. Lambert — The Railway King, 1800-71, (1934)

H. Lansberry — "James Macadam and the St. Albans Turnpike Trust", J.T.H. Vol. VII

J.L. Macadam — Remarks on Road Making, 3rd. Ed., (1820)

K.C. Macmahon — Roads and Turnpikes in East Yorkshire, East Yorkshire Local History Society Pamphlet No. 18, (1964)

E. Mally — The Financial Administration of the Bridgewater Estates, Manchester M.A. (1929)

H. Malet — The Canal Duke, (1967)

J. Marshall — Digest of all the Accounts, (1833)

J.D. Marshall — The Old Poor Law, 1795-1834, (1968)

G.H. Martin — "Street Lamps for Kendal", J.T.H., Vol. VII

A. Maulsley — Highways and Horses, (1888)

G.E. Mingay — English Landed Society in the 18th Century, (1965)

B.M. Mitchell — "The Coming of the Railway Age and U.K. Economic Growth" J.E.H., (1964)

B.M. Mitchell and P. Deane — Abstract of Historical Statistics, (Cambridge, 1962)

D.J. Olsen — Town Planning in London; The Eighteenth and Nineteenth Centuries, (New Haven, 1964)

T.F. Ordish — "History of the Metropolitan Roads", P.P. 1911, XXXIV, p.170

H. Parris — Government and the Railways in 19th Century Britain, (1965)

P.L. Payne — The Bermondsey, Rotherhithe and Deptford Trust, M.A. Thesis, (London, 1952)

J. Phillips — A General History of Inland Navigation, (1792)

S. Pollard — "Capital Accounting in the Industrial Revolution" Yorkshire Bulletin of Economic and Social Research, (1963)

" — "Fixed Capital in the Industrial Revolution in Britain", J.E.H., XXIV, (1964)

" — "The Growth and Distribution of Capital in Great Britain, 1770-1870", 3rd Internated Economic History Conference

" — The Genesis of Modern Management, (1965, Penguin Ed. 1968)

H. Pollins — "The Swansea Canal", J.T.H., Vol. I

" — "The Marketing of Railway Shares in the First Half of the Nineteenth Century", E.H.R., Vol. VII, (1952)

" — "The Aspects of Railway Accounting Before 1868", in Studies in the History of Accounting, A.C. Littleton and B.S, Yamey, (1956), republished in Railways in the Victorian Economy, Ed. M.C. Reed, (Newton Abbot, 1969)

J. Porteous — "Goole", Journal of Industrial Archaeology, (1969)

M.H. Port — "The Office or Works and Building Contracts in Early 19th Century England", E.H.R., Vol. XX, (1967)

Porter — Progress of the Nation, (various editions)

J. Priestley — Account of Navigable Rivers, Canals and Railways, (1831)

T.F. Reddaway — "The Freeing of the London Bridges", Twentieth Century, Vol. 15.

H. Rees — The North Eastern Expansion of London Since 1770, M.Sc. Thesis, (London, 1946)

M.R. Rees — The Economic and Social Development of Extra-Metropolitan Middlesex in the 19th Century, M.Sc. Thesis, (London, 1955)

D. Ripley — The Peak Forest Tramway, Locomotion Paper No. 38

H.A. Shannon — "Bricks - A Trade Index, 1785-1849", Economica, (1934)

F.H.W. Shepherd — Local Government in Marylebone, 1688-1835: A study of the Vestry and Turnpike Trust, Ph.D. Thesis, (London, 1953

S. Smiles — Lives of the Engineers - Metcalfe, Telford, (1904 Ed.)

R.H. Spiro — "Macadam and the Metropolis Turnpike Trust", J.T.H., Vol. II

W. Stern — "The Isle of Dogs Canal", E.H.R., (1952)

J. Tann — Gloucestershire Woollen Mills, (1968)

W.E. Tate — Enclosure and the English Village Community, (1967)

A.J. Taylor — "Progress and Poverty in Britain, 1780-1850", History, (1960)

A. Temple-Patterson — "The Making of the Leicestershire Canal", Leicestershire Archaeological Society, (1951)

D. Tew — The Oakham Canal, (Wymondham, 1968)

F.S. Thacker — The Thames Highway, General History, Vol. I, (Reprint, 1968)

A.L. Thomas — Geographical Aspects of the Development of Transport and Communications affecting the Pottery Industry of North Staffordshire in the 18th Century, Ph.D., Manchester, (1935)

E.P. Thompson — The Making of the English Working Class, (1963, Penguid Ed. 1968)

F.M. Thompson — English Landed Society in the 19th Century, (1966)

G.H. Tupling — "Lancashire Turnpikes", Manchester Philosophical and Literary Society, (1952-3)

A.S. Turbeville (Ed.) — England in the Age of Johnson, (Oxford, 1933)

P.A.L. Vine — London's Lost Route to the Sea, (Newton Abbot, 1967)

" — London's Lost Route to Basingstoke, (Newton Abbot, 1968)

S. & B. Webb — The Story of the King's Highway, (1913)

" — Statutory Bodies for Special Purposes, (1922)

A. Weber — The Growth of Cities, (2nd. Ed. Cornell, 1963)

E. Welch — The Bankrupt Canal, Southampton Corporation Publication, (1966)

D. Williams — The Rebecca Riots, (Cardiff, 1958)

R.G. Wilson — "Transport Dues as an Index of Economic Growth", E.H.R. Vol. XIX, 1966.

T.S. Willan — River Navigation in England, 1600-1750, (1964)

" — "The Justices Rates for Land Carriage", J.T.H., (1967)

Zola — La Terre