



Research Guide No 35: Fares and Ticketing on London's Buses, Trolleybuses and First Generation Trams

Fares and ticketing is a subject that affects, and is affected by, most other activities involved in running a public transport service. This guide concentrates on the road-based transport modes, in which fare collection issues have in the past been very closely bound up with the ways in which services are operated. Inevitably, there is some crossover with railway issues, particularly when considering the business and political impacts of fare structures and levels – and in recent years, when developing fare collection technology.

This guide contains details of a small selection of the material on this subject held in the Corporate Archives; a full listing is available on request as an appendix to this research guide.

Early days

When George Shillibeer began the first London bus service in 1829, he employed conductors who collected fares but did not issue tickets. This continued stagecoach practice, where fares collected at time of travel were just recorded on the waybill (a journal of all the events that occurred on each trip). The bus conductor also completed a waybill, and paid his and the driver's wages, and some other running costs, out of the fares collected before handing over the rest of the money to the bus owner. This arrangement had clear shortcomings in an urban situation with large numbers of small payments. Horse tram companies used systems in which they received (in theory) all the fares and paid the staff directly; they also issued passengers with serially-numbered tickets for the fare paid as a way of keeping track of the money taken by conductors. Most horse bus operators moved to this arrangement over time – except for the London General Omnibus Company (LGOC), who persisted with the old method until 1891 when introduction of tickets led to a major strike by their staff. The strike was settled by a substantial increase in wages and reductions in hours worked.

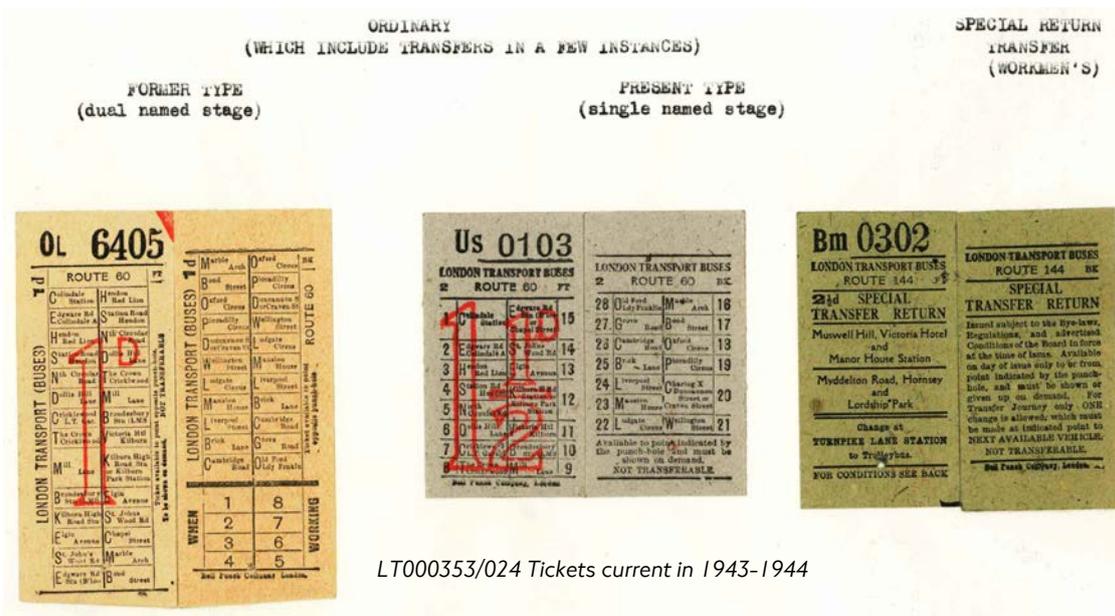
The Corporate Archive holds a number of significant items relating to the 19th and early 20th Century, including:

ArchiveRefNum	Content
LT00346/173	LGOC Board Meeting minute (24 Nov 1870 meeting) on fraudulent use of conductors tickets (waybills)
LT00346/173	LGOC Board Meeting minute (26 May 1891 meeting) on introduction of passenger tickets and effect on staff wages
LT000558/002	Imitation of conductor's leather pouch, pencil, book of tickets and ticket punch as used by the Vienna General Omnibus Company in 1894; in this case adapted to provide a way of recording arrangements to dance with particular people during a Viennese Ball. Also includes newspaper cutting on the purchase of the Vienna General Omnibus Company by the Vienna City Council in 1908
LT001636/001 & LT001636/002	Notices to London County Council Tramways Motormen and Conductors, including some on fares and ticketing matters, 1914-1917
LT001189/001 & LT001189/002	Draft and final versions of a paper by Frank Pick given to the London School of Economics entitled "The Fixing of a Fare," 1920
LT001764/015	"The Problem of the Fares" - paper by Lord Ashfield, 1921
LT001629/001	Ticket Systems Investigation Committee papers; includes descriptions of current systems on road and rail modes, some sample tickets, and a description of the London County Council's Ticket Printing Works, May 1925-Feb 1926
LT000346/158	Correspondence regarding the London County Council Tramways Shilling All Day ticket, particularly regarding a record-breaking trip made with this ticket that covered 324 miles in one day in 1932, Aug 1930-Mar 1932

The Bell Punch system

This was the most common arrangement for bus, trolleybus and tram ticketing in London from the 19th Century right up to the 1950s. The conductor had a rack of serially-numbered tickets for each fare value used on the route concerned. The fare value was printed on the ticket together with the names of the points from and/or to which the ticket was valid, known as Fare Stages. On issuing the ticket, the conductor punched a hole adjacent to the journey being taken using a punch which rang an

internal bell, recorded the transaction on a sealed register, and retained the punched hole in the device – each value of ticket was a different colour, so the operator could count the clippings afterwards and reconcile the amount of cash paid in, independently of paperwork submitted by the conductor.

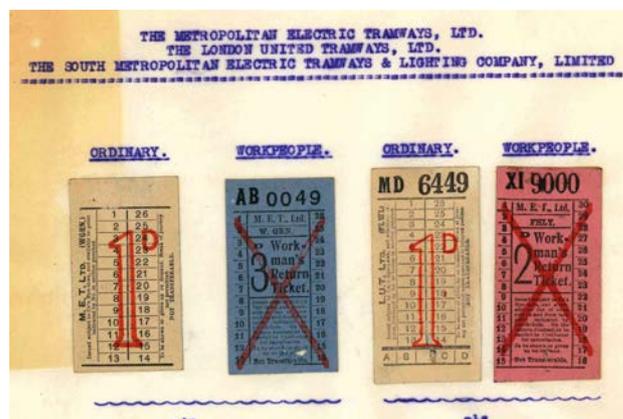


LT000353/024 Tickets current in 1943-1944

Over time, the layout of tickets was changed, with fare stage numbers being added and in later versions these often replaced the fare stage name completely. Complex arrangements often existed for transfers between routes, using the same ticket; in these cases the conductor used a separate canceller to validate additional sections of the ticket.

Material relevant to this system:

ArchiveRefNum	Content
LT000257/011/009/005/022	Article by Reg Durrant on the history of the Bell Punch bus ticketing system in London, published in 'London Bus Magazine', circa 1980
LT000257/011/009/005/021	Instructions for conductors and garage staff on use of the Bell Punch device, circa 1954



LT001629/001 Typical Bell Punch tickets used in the mid-1920s

The Bell Punch and Ticket Printing Company was a dominant provider of this system to London bus and tram operators, printing and supplying the tickets and hiring out the punches and other equipment. There were a number of other providers in the same market. When the London County Council (LCC) took over horse tram operators in its area from the 1890s onwards, it decided to run the tram ticketing system itself, using printing and ticket punch manufacturing facilities it inherited from the London Tramways Co. The LCC later set up a dedicated printing works in Effra Road, Brixton, with a subsidiary workshop for punches and cancellers in Stockwell Road, Brixton.

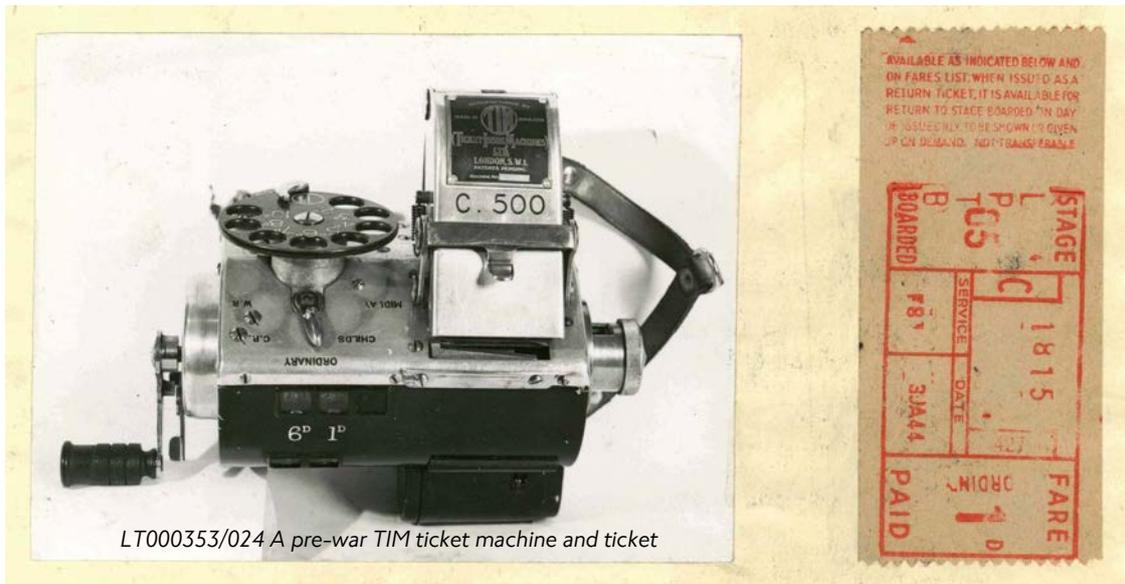
Records of this organisation, which outlasted the Bell Punch system to service the mechanical ticket machines that replaced it, include:

ArchiveRefNum	Content
LT000246/044	Description of ticket checking and printing, produced for London County Council Tramways Efficiency Meetings, 1932-1933
LT000354/057	Papers on proposals to print all Road Services tickets at Effra Road; reports on current practices in 1930s and 1940s, and research into options for change, May 1938-Oct 1945
LT000014/044	Minutes of Ticket Machine Works Meetings; gives a narrative on developments and statistics on works output, 1964-1977
LT001671/1321	Minutes of Effra Road Works Meeting; includes a summary of all work done in each 4-week period, Nov 1977-Dec 1981

The search for mechanisation

The Bell Punch system was extremely labour-intensive. Tickets needed to be printed (and re-printed when routes or fares changed); boxes of tickets needed to be made-up, checked and sent to garages or depots for conductors to use; used boxes needed to be reconciled against the waybills submitted by conductors (and discrepancies investigated by counting the punch-holes, as described earlier), then replenished; punches needed checking and frequent overhaul; and statistics about service usage and financial results were compiled manually. Attempts to mechanise ticketing began in the 1920s, initially with limited success because the wide range of fare values (including different fares at different times of day) and extensive arrangements for 'through' fares between different routes were beyond what the available technology could cope with. In the early 1930s, 600 'TIM' mechanical ticket machines that printed tickets from blank paper rolls were introduced at two trolleybus depots (Fulwell and Isleworth) and two bus garages (Cricklewood and Willesden), but this initiative did not go further until after World War II, when 1000 more machines of the same type were

purchased as a 'stop gap' until permanent solutions to the mechanisation problem could be implemented. In the middle of World War II, London Transport set up a number of studies into the future of its operations, including one on bus ticketing. The resulting report, published in 1944, (LT000264/134) gives a good picture of the system as it existed then, as well as possible future developments.



Material relevant to this era:

ArchiveRefNum	Content
LT000264/134	Chairman's papers on ticketing matters, including the future of Effra Road Works, the purchase of 'TIM' ticket machines, and a full copy of the 1944 report "Simplification of Ticket system - Road Transport" including sample tickets and photographs, 1944-1956
LT000700/010	Papers on the purchase of 1000 'TIM' ticket machines in 1950, purchase of Gibson ticket machines in the early 1950s, and purchase of Setright ticket machines for Green Line Coaches, Dec 1947-Oct 1955
LT000315/8206	Report on mechanical tests on the 'TIM' ticket machine conducted by the Signal Engineer, Mar 1938
LT001538/001	Bundle contains LPTB's outline operational requirements for fixed and portable ticket machines, 31 Jan 1945
LT000371/007	Report on Bus and Trolleybus Pay As You Board Trials, including sketch drawings and photographs, Nov 1946

The Gibson ticket machine and other developments

Following on from the 1944 report, the Superintendent of the Effra Road Ticket Printing Works, George Gibson, produced a prototype ticket machine that was initially patented by himself and London Transport. After a considerable amount of trialling and refinement (and major simplification of fares that reduced the number of values and ticket types to a range that a machine could cope with), the Bell Punch system and the 'TIM' machines were replaced by Gibson machines between 1952 and 1958, though Bell Punch-style tickets continued to be used when machines broke down and 'Setright' machines were used on Green Line coaches where a bigger range of fares was required.

Material related to the Gibson machine and its replacement:

ArchiveRefNum	Content
LT000257/011/009/005/027	Article by Peter Brooks on the history of the Gibson bus ticket machine, published in 'London Bus Magazine,' 1988
LT000131/175	Correspondence, specifications and drawings relating to the patenting of the Gibson ticket machine, 1944-1961
LT000014/193	Reports and memoranda concerning use of bus ticketing equipment, including introduction of Gibson ticket machines, effects on garage counter staffing requirements, and emergency tickets, 1939-1978
LT000232/281	Memoranda and reports regarding mechanisation of ticket issue, 1949-1958
LT000346/149	Proposals for design and redesign of Gibson ticket machines, including use of Johnson typeface and shortened tickets, 1949-1976
LT000130/212	Correspondence, specifications and drawings relating to the patenting of improvements to the Gibson ticket machine, 1957-1959
LT000257/011/009/007/018	Booklet titled "How to Conduct a Bus" given to newly qualified bus conductors describing their duties and how to carry them out, 1959
LT001607/390	Booklet issued to conductors giving instructions on use of the Gibson Ticket Machine, 1961
LT000044/062	Public Relations Office correspondence regarding ticket machines and the Effra Road Ticket Machine Works. Papers include the full garage procedures for operation of the Gibson ticket machine system, and brief descriptions of Gibson, 'TIM' and Ultimate Ticket Machines, 1965-1972
LT001895/001	Staff instructions for preparation and use of ticket machines, including Gibson, 'TIM', Almex E, Setright and Ultimate designs, 1965-1967
LT000257/011/009/005/026	Memoranda concerning a trial of Gibson ticket machines on one-person-operated buses, instructions to staff about the locations of emergency replacement machines, the operation and wearing of machines, and arrangements during the Decimalisation period, 1968-1971

ArchiveRefNum	Content
LT000560/082	Correspondence concerning the Ultimate ticket issuing machines for one man operation including promotional material for other systems, 1962-1977

As time went on, the limitations of the Gibson machine regarding statistical information and other issues became evident, and other machines that could potentially deal with these questions were investigated and in some cases trialed. Eventually, in 1993, remaining 'Gibson' machines were replaced by a specially-developed portable electronic machine.

Material relating to these developments:

ArchiveRefNum	Content
LT000254/1182 & LT000254/1183	Operating instructions, sample Cash total Sheets and other documents concerning trials of Almex and TEL ticket machines, 1962-1965
LT001225/001	Director of Commercial Policy's file on fare collection, particularly including papers for the Fare Collection Study Group; also includes sample tickets from prototype ticket machines, 1964-1967
LT000257/011/009/005/ 025	Papers concerning trials of Almex, Setright and TEL ticket machines, including operating instructions for the Almex machine, drawings of tickets issued from all machines, and sample tickets, 1966
LT000553/040	Memoranda and reports on use of Almex 'E' ticket machines by conductors, 1973-1979
LT000187/074	Proposal to replace Gibson ticket machines by a new Portable Electronic Ticket Machine, 1990
LT000257/011/009/005/ 004 & LT000257/011/009/005/ 005 & LT000257/011/009/005/ 006	Descriptions of the operating and functional requirements for a Portable Electronic Ticket Machine (PETM) and associated equipment, including a battery charging system, for use by London bus conductors. Written by Systech Solutions Ltd, the contractors for the PETM project, in collaboration with London Buses staff, 1991

One-Person Operation (OPO) and the search for faster fare collection

Originally called One-Man Operation (OMO) since there were no women bus drivers, pressure to move to this outwardly more economical form of bus operation grew from the early 1960s as London Transport's finances deteriorated and bus staffing problems increased. While some quieter outer suburban routes could be successfully operated on a conventional basis with the driver collecting fares, issuing tickets and giving change, there was considerable staff opposition to OPO. The fact that an overwhelming proportion of fares were paid by cash meant that widespread

conversion to a new system on the busier routes was contentious, operationally difficult and expensive. Buses would be much slower unless technology could be used to speed up fare collection.

In 1967, London Transport published a report called “The Reshaping of London’s Buses” (ArchiveRefNum LT000227/631) which proposed shorter ‘satellite’ routes serving suburban railheads, with passenger-operated machines on buses to collect flat fares. This basic proposal went through various iterations over the next few years, with many suburban routes being converted using several different operational and technical approaches. A great deal of research, development and trialling of different solutions to the fare collection problem took place. The most significant systems tried during the 1970s and 1980s included:

- Flat fares paid to a passenger-operated machine on boarding, with no change given, no ticket issued and a turnstile gate released to give access to the bus when the correct amount had been accepted
- ‘Farebox’ operation – the passenger inserted the exact flat fare into a box next to the driver with a transparent top; once the correct amount was paid, the driver released the coins into a sealed vault; no change was given, and normally no ticket was issued.
- ‘Ticket Strips’ for several journeys bought in advance by passengers at a discount, consisting of a number of perforated sections (one for each journey) to be torn off and put into a farebox instead of cash.
- ‘Split Entrance’ operation with graduated fares; the passenger had the choice of either paying the driver, who issued a ticket and could give change; or using a self-service machine to select the fare, insert the exact money [no change given], collect a ticket and go through a tripod gate into the bus.
- Pre-purchased cardboard tickets giving a number of rides; the card was inserted in a passenger-operated validator on boarding, and a section was chopped off whilst details of the validation were printed on the remaining card; this system was called the Universal Bus Ticketing System (UBTS), marketed as ‘Multi-Ride’
- Pre-purchased magnetically encoded Travelcards and Bus Passes, using the same technology as the contemporary Underground ticketing system, but checked in passenger-operated validators on boarding. This system was called the Bus Ticketing System (BTS), and marketed as ‘Autocheck’

All these systems proved unreliable, expensive to run and unpopular; eventually, London Transport simply standardised the driver-operated Almex ‘E’ ticket machine for most of its OPO routes, whilst ‘coarsening’ the fare scale to values that were easy to pay using the minimum number of coins to reduce change-giving. Political issues, as well as the realisation that conversion of the busiest crew-operated routes would not be economically worthwhile within existing technical and operational constraints, meant that the process of converting routes to OPO slowed-down and eventually stopped in the 1980s.

Material relevant to this period:

ArchiveRefNum	Content
LT000572 series	This series contains Bus Finance Department statistics, reports and correspondence on all aspects of the business; particular files of interest from a fares and fare collection point of view include: LT000572/005 and LT000572/035 concerning fares revisions; LT000572/021 concerning reduced fares; LT000572/095 on electronic ticket machines; LT000572/145, LT000572/047 and LT000572/049 on fraud; LT000572/040 and LT000572/052 on Universal Bus Ticketing System; LT000572/178 and LT000572/050 on fares analysis and LT000572/004 on multi-ride system, 1957-1987
LT000795/089	Evidence submitted to the Phelps-Brown Enquiry into bus operation in London, regarding alternative methods of fare collection, 1964
LT000078/021	Correspondence, memoranda, reports and extracts from minutes of meetings concerning bus ticket issuing machines and Automatic Fare Collection (AFC). Subjects include graduated fares on Central Buses, the sale of Rover tickets on buses, trials of machines, decimalisation, the Universal Bus Ticketing System (UBTS) and the introduction of electronic ticket machines, 1964-1986
LT000257/011/009/005/028	Papers concerning the operation of buses with automatic fare collection equipment installed, including instructions for staff about dealing with failures, procedures for testing the machines, a training curriculum for drivers, and a public leaflet explaining how to use the new buses after Decimalisation, 1968-1971
LT001296/004	Operating instructions for Flat Fare buses, 1968-1981
LT000732/063	Reports prepared for an internal conference, giving technical and operational results of the 1968 Wood Green Flat Fare conversion scheme, 1969
LT000560/083	Correspondence, minutes, memoranda and papers concerning the Almex 'E' ticket issuing machines including revision of fares, 1971-1976
LT001296 series	This series contains reports and internal correspondence concerning fare collection equipment on buses and at the roadside, including: proposed future systems and improvements to current systems; system operating instructions and procedures; usage statistics; multi-journey tickets; coinbox handling; change-giving policy; and the removal of Automatic Fare Collection equipment from buses, 1972-1979
LT001161/030	Operating Manager (Central Buses) correspondence and statistics regarding the operation of Split Entrance buses, 1977
LT001161/036	Operating Manager (Central Buses) correspondence regarding the use of Alpha codes to indicate fare values on tickets, 1978-1979

ArchiveRefNum	Content
LT000257/011/009/005/032	Instructions to drivers, instructions to garage staff, reports from inspectors with sample tickets, notes of an internal meeting and a manufacturer's brochure relating to introduction of Almex "A" ticket machines on certain bus routes in southwest London, 1983
LT000257/011/009/007/016	Processes and procedures for dealing with fares cash paid-in by drivers and conductors in bus garages, including examples of forms and other paperwork; relates to the period immediately before privatisation of bus operation took place, 1988

Off-bus ticketing

Ultimately the most successful method of speeding-up bus boarding was to encourage pre-purchase of travel from outlets such as newsagents, at a discount compared with single fares; this was actively pursued from the 1970s onwards. Bus Passes and Capitalcards, available for various combinations of geographical zones and different lengths of time (a day, a week, a month, etc), were developed by London Transport. Later, the Travelcard was developed in co-operation with British Rail's Network Southeast business sector to provide a system that covered all road and rail services in the Greater London area.

Material relating to these developments:

ArchiveRefNum	Content
LT000560/039	Memoranda and reports on Road-Rail Season ticket policy and administration, 1951-1978
LT000560/041 & LT000560/042	Red Rover ticket correspondence, including sample tickets, 1959-1982
LT000183/077	A memorandum on the future of the Travelcard, submitted to London Buses Ltd Board Meeting no 77, 1990
LT000834/140	Minutes and memoranda of the LT Corporate Strategy Group; subjects include the future of the Travelcard and concessionary fares under bus deregulation, and a review of ticket selling facilities, 1992-1993
LT000257/011/009/002/002 & LT000257/011/009/002/003 & LT000257/011/009/002/004	Public and staff information about the Pay Before You Board a Bus in Central London scheme, published at the time of its introduction, 2003

An independent organisation, London District Pass Distributors (LDPD) based in the newspaper retail trade, handled the distribution and accounting work involved in

selling these tickets; it was later bought out by London Regional Transport and was reformed as the Pass Agents Sales Service (PASS) from 1991.

Material relating to these organisations :

ArchiveRefNum	Content
LT000746/004 & LT000746/005	Correspondence, reports and other papers relating to London District Pass Distributors Ltd (LDPD), topics include transfer of LDPD to London Transport's ownership, automation of ticket sales and accounting, and liquidation of LDPD after establishment of the Pass Agents Sales Service (PASS), 1988-1993
LT000884/003 & LT000884/004 & LT000884/005 & LT000884/006 & LT000884/007 & LT000884/008 & LT000884/012 & LT000884/017	This series covers the operation and development of London District Pass Distributors (later, LT Pass Agents Sales Service), 1988-1994

Electronic Ticket Machines (E.T.Ms.) and Electronic Ticketing

The advent of reliable and affordable miniaturised electronics in the early 1980s meant that electronic ticket machines were now a practical proposition; they would be more economical to maintain, simpler to use and could produce automatically a range of statistical information needed to plan services. A trial of competing designs was held, as a result of which the "Wayfarer 2" machine and supporting systems were adopted as the fleet standard, completion of conversion being achieved in 1988.

Material relevant to this period:

ArchiveRefNum	Content
LT000257/011/009/005/ 023	Memoranda and instructions concerning the implementation of experimental Timtronic ticket machines at Loughton Garage, 1985
LT000257/011/009/005/ 029	Papers concerning use of Wayfarer 2 electronic ticket machines, including operating instructions for drivers, photocopies of tickets and photocopies of the driver's paying-in slip, 1986

The dawn of Smartcards

Electronic smartcard ticketing was developed in the 1980s, and in the early 1990s it had reached a point where practical trials were possible. An experiment on route 212 in North-East London in 1992-1993 proved the technology was workable, and led to a much bigger trial on routes in the Harrow area of North-West London in 1994-1995. This in turn was a basis for development of the Oyster system that has, since the early 2000s, become the foundation for Transport for London's multi-modal ticketing system. Smartcards made it possible economically to remove the last crew-operated buses and, more recently, to remove cash fares from buses entirely.

Material relevant to the Route 212 and Harrow trials and preparations for the Oyster system:

ArchiveRefNum	Content
LT001559/001	Internal consultation paper for the PRESTIGE ticketing project, and final report of the Stored Value Ticketing Working Party, 1991-1996
LT001559/002	Report on the Harrow Smart Photocard trial, 1996
LT000568/101 & LT000568/102 & LT000568/103	Papers concerning Stored Value Ticketing and the Global Revenue Strategy, which developed previous London Buses and London Underground work on smartcard ticketing into the basis for the PRESTIGE project, 1990-1995
LT000605/085	Memoranda, reports, samples of publicity and smartcards for the Route 212 and Harrow Smartcard trials, 1992-1995
LT000257/011/009/001/ 010	A smartcard, supporting Bus Pass document and use instructions issued to a participant in the trial of smartcard ticketing held in the Harrow area in 1994
LT000257/011/009/004/ 003	Paper given to a seminar, about the development of the London smartcard system, 1998
LT000257/011/009/004/ 015	Paper given to a seminar about the development of and experience with smartcard ticketing, from a London Buses viewpoint, circa 2007

Oyster implementation really marks the end of the separate development of fares and ticketing for road services; the same basic technology is now used across all modes, and in commercial terms fare levels and structures are now determined on a London-wide basis.

Fares Policy

The Archive contains material that chronicles the gradual change from London Transport being dependent on its fares income to cover its operating costs in the 1930s, to a position where a substantial proportion of costs were covered by subsidies and grants. Themes such as the simplification of fare scales, abolition of

Transfer and Workmen's fares, provision of concessionary and free travel for various types of passenger, and involvement of the Greater London Council are also covered.

ArchiveRefNum	Content
LT001764/016	"The Theory of Fares" a paper by A.B.B.Valentine, Fares Officer, 1930s
LT000483/006	Proposals for simplification of fares; part of post-war planning work, 1940-1943
LT000233/163	Copy of the report on "Simplification of Fares" by the LTPB Post-War Planning Committee, 1944
LT000367/091	Report analysing effects of abandoning Workman fares as part of the post-war tram replacement scheme, or extending them to all buses; also includes similar work on transfer tickets and off-peak fares, 1946
LT000232/282	Memoranda, reports and statistics regarding fares policy, structures and prices, 1947-1956
LT001195/014	Legal Department correspondence on ticket regulations and conditions. Includes samples of Airport Coach Service tickets, 1953-1962
LT000560/405/001 & LT000560/405/002 & LT000560/405/003	Fares Officer and Commercial Officer files containing internal and external memoranda, papers and minutes of meetings regarding fare policy, 1983-1989
LT000560/090	Papers on design and printing of fare charts, 1983-1989
LT000257/011/009/006/010	Report of Working Party examining extension of simplified fare structures and integration between bus and rail modes, 1985
LT000130/142	Chief Secretary's correspondence with the Greater London Council regarding fares, 1972-1973
LT000101/055	Correspondence with the Greater London Council on fares matters, 1983

Fares Administration and Organisation

Records in this area cover the day-to-day detail of developing and operating a fares policy, and include information on fares charged on specific routes and the conditions relating to use and acceptance of various types of passes and tickets.

ArchiveRefNum	Content
LT001195/013	Legal Department correspondence on fares, charges and rates, 1953-1965
LT000560/406 series	Diagrams showing boundaries of bus Fare Zones associated with overlapping fare stages, 1964-1995
LT000560/126	Proposal to relocate fare stage points on bus routes, 1965-1968

ArchiveRefNum	Content
LT000560 series	This series contains Fares and Charges Office correspondence, posters, publicity, fare charts and other information related to bus fares, 1966-1992
LT000107/044	Memoranda to the Chairman's Management Meeting and the Executive Meeting. Subjects include: Pre-payment for bus travel; Free travel for elderly people; fare collection systems for buses, 1973
LT000887 series	Memoranda and minutes for the LT Board Committee on Bus Privatisation; includes a report on bus operators' freedom to change fares under Deregulation of bus services, and a meeting minute on this subject, 1992-1994

Revenue Apportionment

Where travel is sold by one organisation but can be used on several different operators' services, there need to be arrangements to split the fares income equitably between all concerned. The advent of Bus Passes and Travelcards made this a significant issue for buses, and it became even more important when it appeared that bus privatisation would include the dividing-up of income from pre-purchased travel between all the different companies (though in the end this did not happen).

Significant items include:

ArchiveRefNum	Content
LT001607/367	Operational Research Report R186: The Receipts Impact of One Man Operation - Some Explanations and Predictions, 1972
LT000184/007/001 & LT000184/007/002 & LT000184/007/003	Memoranda and reports concerning the privatisation of the London Buses subsidiary companies, including arrangements for off-bus revenue apportionment, 1992-1994

Fare Revisions

Until recent years, proposals to change fares had in effect to go through a formal public review process, involving submission of large amounts of evidence to support the application. This material can be useful when looking at the business performance of London Transport at a detailed level. Records in this area also include research into the effects of fare changes and correspondence around the "Can't Pay, Won't Pay" protest linked to a revision in 1982.

Significant items include:

ArchiveRefNum	Content
LT000257/011/009/006/001	Listing of all Central Area bus fares from each revision date, plus introduction dates and prices for pre-paid tickets and passes, 1933-1985
LT000233/164	Working papers and memoranda for the 1946 fares revision, also including consolidation of processes, and statistics for, 1940-1946
LT0001085/007 & LT001085/008	Proceedings and supporting papers for the 1946 Fares Revision Enquiry
LT000965/015	Internal correspondence regarding implementation of the 17th June 1979 fares revision, which included the introduction of "Alpha" codes on tickets to replace the fare value, 1979
LT000965/011 & LT000965/016 & LT000965/017	Internal correspondence and reports regarding implementation of the 5th April 1981 fare revision, which included introduction of suburban flat fares and experiments with all-London and Local Bus Passes
LT000560/338	Papers concerning the March 1982 Fares Revision (which includes the "Can't Pay, Won't Pay" protest)
LT000560/404/001-014	This series contains memoranda, reports and other documents relating to particular fare revisions, 1983-1996
LT000965/014	Internal correspondence and reports regarding implementation of the 22 May 1983 fare revision, which included major fare reductions and simplification of the fare structure
LT000257/011/009/006/002	Sheet showing cash and Oyster Pay As You Go fares charged from each revision date, and other details, 1991-2014

Statistics, Audit Reports and Fraud

Records in this area provide statistical data on usage of the network, while audit reports and fraud correspondence can be useful in explaining how particular business processes were organised, and how effective they were.

Significant items include:

ArchiveRefNum	Content
LT001751/003	Organisation charts for the Commercial Manager and Fares and Charges Manager functions of London Transport, 1937-1969
LT000925/013 & LT000925/014 & LT000925/015	Bus statistics ledger; includes, for each day, total scheduled buses operated, miles run, total receipts and pass sales volumes, 1971-1977
LT000037/009	Bus length of ride survey results, 1975-1983

ArchiveRefNum	Content
LT000037/008	Statistics from time of day of travel surveys, 1975-1982
LT000037/010	Bus Pass validity statistics; also includes a note on bus Pass history from 1972 to 1982, 1981-1988
LT000037/037 & LT000037/038 & LT000037/039	London District Pass Distributors ticket sales statistics, 1987-1993
LT000870/933 & LT000870/934	Working papers and report on an audit of paying-in and cash handling arrangements at Palmers Green, Finchley and Enfield Garages, 1988
LT000870/384	Results of a ticketing equipment audit at Edgware and Cricklewood garages, 1988
LT000870/917	Report and working papers for an audit of ticketing equipment held at garages after privatisation of London Buses Ltd bus operating companies, 1994-1995
LT000700/004	Memoranda and reports on bus fare evasion and ticket checking, 1948-1956
LT001421/004	A report on the ticket checking squad, 1957-1958
LT000257/011/009/009/ 002	Paper for a seminar about bus revenue protection policies and techniques, particularly from a London viewpoint, 1996

Sample tickets and passes

A range of tickets and passes, particularly from the Bell Punch era:

ArchiveRefNum	Content
LT000558/032	Sample blank London General Omnibus Company Conductors 'Ticket', or Waybill, 1876
LT00940/020	Examples of staff passes issued by bus and tram operators prior to establishment of the London Passenger Transport Board, 1892-1929
LT002006 series	Samples of free passes and permits issued for use on bus, tram and rail services, 1904-1975
LT000558/031	Samples of horse bus, horse tram and early motor bus tickets, 1905
LT000257/011/009/001/ 024	10 Multiride tickets giving either 13 or 9 rides for 50p, validated in a machine on boarding the bus, circa 1975
LT000257/011/009/001/ 020	A travel pass and small bus map issued to delegates attending the 2001 UITP Congress in London 19 May - 27 May 2001, together with the holder in which they were issued
LT000257/011/009/001/ 013	Two plastic cards of identical size and design to an Oyster card (but coloured red), advertising Honda Scooters; together with a matching pass holder. TfL took action with

ArchiveRefNum	Content
	Honda to withdraw this item since it contravened the registered design for an Oyster card, 2005

Other examples are included in reports in other parts of the collection.

Other Operators' and Suppliers' Ticketing Systems

A small number of brochures and reports about other systems are included in the collection:

ArchiveRefNum	Content
LT000257/011/009/005/019	Report presented to 1951 UITP International Congress concerning the fare collection systems used by 67 European urban public transport operators, based on a questionnaire which they had answered. Includes photographs, drawings, tables and diagrams relating to equipment, systems and fare structures. Also includes a brief summary of the report produced within London Transport

Other Sources of Information

- The London Transport Museum (<http://www.ltmuseum.co.uk/collections>) holds a range of papers and objects relating to the history of fares and ticketing on London's bus, tram and trolleybus services.
- The London Metropolitan Archive (<https://www.cityoflondon.gov.uk/things-to-do/london-metropolitan-archives/Pages/search.aspx>) holds material, particularly from former Local Government bodies such as the London County Council, Middlesex County Council, and the Greater London Council.
- The Omnibus Society (<http://omnibus-society.org>) is a leading body for historical research into all aspects of bus and coach operation in Britain, and has extensive archives.
- The Transport Ticket Society (www.transport-ticket.org.uk) is a leading source of information on tickets and ticketing systems on all modes of public transport
- Grace's Guide to British Industrial History (www.gracesguide.co.uk) has an entry on the history of the Bell Punch Company
- The Ticket Machine Website (www.ticketmachinewebsite.com) contains a number of articles about the history of various makes of ticketing equipment including photographs, as does www.bobmockford.co.uk/museum
- Images of tickets, from the Bell Punch and later eras, can be found on:
 - www.old-bus-tickets.co.uk
 - www.yorkshireteabags.co.uk

- Books with significant amounts of detail on this subject include:
 - A History of London Transport, by T.C. Barker and Michael Robbins (2 volumes), published by George Allen and Unwin, 1975
 - London Transport Tramways, by E R Oakley and C E Holland, published by London Tramways History Group, 1998
 - London County Council Tramways (especially Volume 2), by E R Oakley, published by the London Tramways History Group, 1991
 - Metropolitan Electric Tramways (especially Volume 2), by C S Smeeton, published by the London Tramways History Group, 1986
 - London United Tramways (especially Volume 2), by CS Smeeton, published by the Light Rail Transit Association, 1986
 - London General's First Fifty Years, by John Christopher Mitchell, published by the Omnibus Society, 2010.



LT001629/001 Ticket back advertising, 1920s- style