TRANSPORT AND ROAD RESEARCH LABORATORY
Department of Transport

RESEARCH REPORT 182

AN EVALUATION OF THE EAST SUSSEX TRANSPORT BROKER

by A O Grigg

Transport Planning Division
Safety and Transportation Group
Transport and Road Research Laboratory
Crowthorne, Berkshire, RG11 6AU
1989

ISSN 0266-5247

CONTENTS

Ownership of the Transport Research Laboratory was transferred from the Department of Transport to a subsidiary of the Transport Research Foundation on 1st April 1996.

AN EVALUATION OF THE EAST SUSSEX TRANSPORT BROKER

ABSTRACT

The main role of the East Sussex broker is to receive transport requests from staff in participating agencies and to make bookings. A suitable vehicle is chosen by means of a directory of available transport and specially designed software is used to make bookings.

The agencies involved are Social Services and Education Departments within the County Council itself. So far there has been little involvement by the Health Authority and none by Voluntary organisations.

The transport broker system has now been in operation for about four years. This report makes an evaluation of the broker system, discussing the scale of operations and finances.

Although the system is working well, the full potential is yet to be realised.

1 INTRODUCTION

The East Sussex Co-ordinated Rural Transport project (ESCORT) was established to test the concept of co-ordinating services that receive public funds, with the aims of reducing expenditure and improving services.

TRRL became involved in the project because the Dept of Transport had for some time been keen to encourage and study co-operation and co-ordination between the various agencies and organisations which provide passenger transport journeys.

There were two main components of ESCORT; the planned co-ordinated schemes marketed as Rider services and the brokerage system. A report (Watts 1985) covering the first year of the first scheme was produced, and a subsequent report (Grigg 1987) made an overall assessment of the various schemes set up under the project.

The main role of the broker is to receive transport requests from staff in participating agencies and, using a directory of available transport, to select a suitable vehicle, then using specially designed software to make bookings.

The Laboratory has been largely responsible for developing the brokerage system and providing East Sussex County Council with related technical and financial support. Davies (1987) describes the setting-up and early operation of the transport broker. This report gives details of the development of the brokerage system and makes an evaluation of it.

2 DEVELOPMENT OF BROKER OPERATIONS

Planning of the broker system began in 1982 with consideration of operational requirements and first development of computer software. In July 1983 the East Sussex transport broker was appointed. In the same month the first co-ordinated scheme linking the Newhaven and Peacehaven areas with Lewes was introduced (Watts 1985). Initially a manual booking system was used for this first County Rider service while the computerised system was being developed. In September 1984 the new system went 'live' at about the same time as the Seaford County Rider co-ordinated service started.

The ESCORT project area is shown in Figure 1, and was used as the basis of planning the transport broker. This was the area used in the 1979 Lewes Area Public Transport Study (Department of Transport and East Sussex County Council 1981). The various co-ordinated schemes which have been introduced are given in Table 1. Those within the project area are described in detail in Grigg (1987). In 1986 schemes in Rye and Battle were introduced outside the original project area. Social services clients and schoolchildren travelling on these services were also booked through the transport broker.

TABLE 1

New co-ordinated services

Service	start date
within project area:	
Lewes—Newhaven—Peacehaven County Rider	July 1983
Seaford County Rider	Sept 1984
Uckfield County Rider	Nov 1984
Village Rider—Plumpton/Ditchling	Apr 1985
Barcombe County Rider	May 1986
outside project area:	
Rye County Rider	Jan 1986
Battle County Rider	May 1986

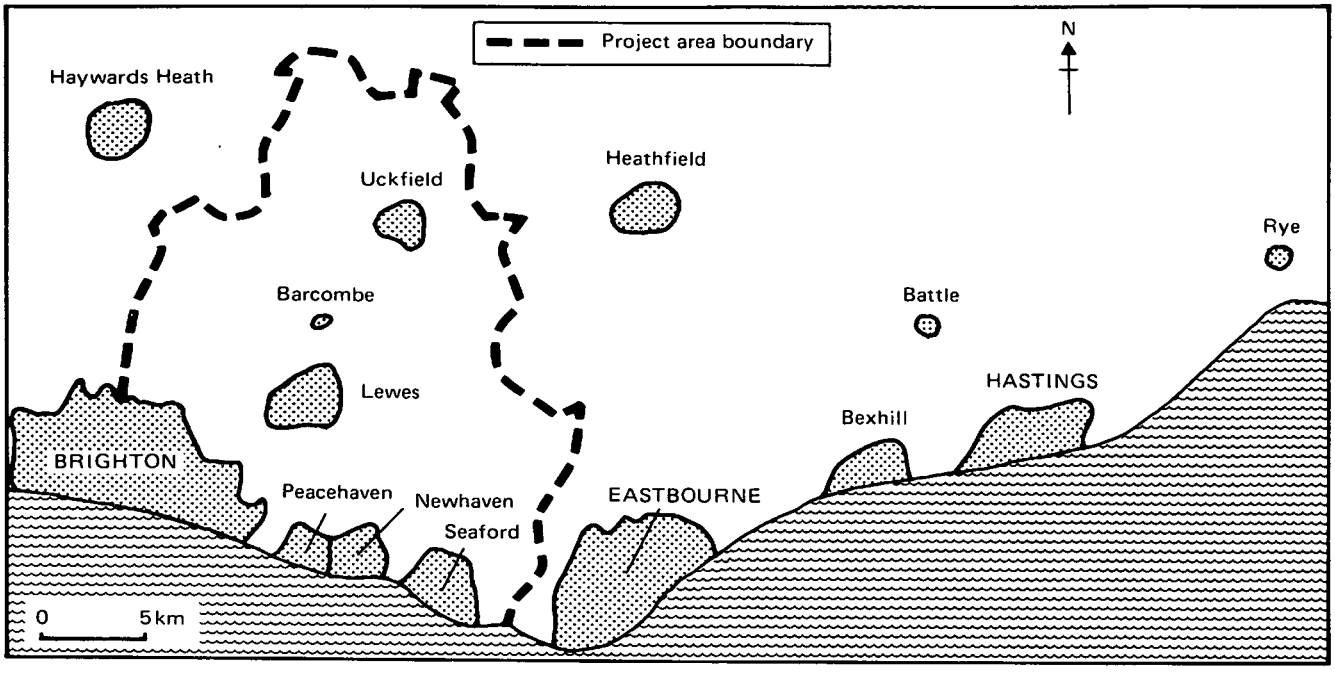

Fig. 1 Project area

3 SCALE OF OPERATIONS

At present there are 117 vehicle journeys stored in the computerised system and 32 of these carry clients booked through the broker. These client journeys are a mixture of special journeys and timetabled journeys open to members of the general public. The system can accommodate about twice the present number of stored vehicle journeys.

The system can handle a maximum of 600 people, each being assigned an identity number. In June 1988 249 people were listed. Of these 223 travelled during that month, 146 were Social Services clients and 77 were Education Department students. No Health Authority clients are at present on the broker list.

The number of clients visiting the various Social Services centres are given in Table 2. These have increased by about a quarter compared with the previous year, with the average number of journeys increasing by about a fifth to 472 journeys per week.

Numbers of booked students have remained fairly stable as shown in Table 3, and it is estimated that

TABLE 2

Social Services clients booked through the broker

To	Average number of journeys/week (June 1987)	Number of listed clients (June 1987)	Average number of journeys/week (June 1988)	Number of listed clients (June 1988)
PHOENIX CENTRE (Lewes)	13	10	10	9
MIDDLETON MANOR (Westmeston)	57	16	60	19
AVIS WAY CENTRE (Newhaven)	60	15	69	17
DOWNLAND DAY CENTRE (Peacehaven)	4	2	16	8
ST ELIZABETHS/ ST MICHAELS (Seaford)	14	10	12	9
BELLBROOK CENTRE (Uckfield)	51	12	60	14
RIDGEWOOD RISE (Uckfield)	18	11	36	15
WOODGATE CENTRE (Bexhill)	6	2	7	2
BEECHING PARK CENTRE (Bexhill)	144	30	181	42
RED CROSS CENTRE (Bexhill)	17	4	15	4
RYE CENTRE (Rye)	6	6	6	7
Total	390	118	472	146

TABLE 3

Education Department students booked through the broker

To	Number of listed students (June 1987)	Number of listed students (June 1988)
ST ANNES SCHOOL (Lewes)	11	15
CHAILEY SCHOOL (Chailey)	7	9
TIDEWAY SCHOOL (Newhaven)	3	3
BEXHILL HIGH SCHOOL (Bexhill)	10	11
CLAVERHAM COMMUNITY COLLEGE (Battle)	26	26
THOMAS PEACOCKE SCHOOL (Rye)	20	8
PRIORY SCHOOL (Lewes)	3	–
RINGMER SCHOOL (Ringmer)	–	5
Total	80	77

TABLE 4

Size of the tertiary sector (passenger journeys per year)

Agency	Lewes Study area (1978/79)	East Sussex (1979/80)
Medical services		
Ambulance	58 000 } 98 000	450 000
Hospital car	40 000 }	
Social services	23 000 +	240 000
Voluntary organisations	10 000	n/a
Schools services		
Contract vehicles	780 000 } 1 450 000	4 180 000
Other (mainly scheduled bus)	670 000 }	
Total	1 581 000	4 870 000

\+ own vehicles
n/a not available

about 332 journeys per week were made by them in the summer of 1988.

In order to put the broker operation in perspective it is necessary to look at the size of the tertiary sector in the study area and also in the whole of the county. (Tertiary transport refers to journeys arranged by statutory or voluntary agencies for their clients, mainly using their own or specially hired vehicles.) The Lewes Area Public Transport study (Department of Transport and East Sussex County Council 1981) showed that in the study area tertiary transport accounted for about 1.6 million passenger journeys per year (see Table 4). For the whole of East Sussex the figure was about 4.8 million.

For passengers booked through the broker about 17 700 journeys were made per year in the study area and about 36 400 in the county (see Table 5).

Thus the scale of operation of the present broker is still relatively small when compared with that of the tertiary sector as a whole.

TABLE 5

Passenger journeys per year booked through the broker (1987/8)

Agency	within study area	outside study area	East Sussex
School services	3 900	7 700	11 600
Social services	13 800	11 000	24 800
Total	17 700	18 700	36 400

4 VEHICLE SCHEDULES

The broker is responsible for preparing lists of scheduled pick-ups and set-downs for the vehicles on which bookings have been made. For vehicles operating within the project area (see Table 1), with the exception of Uckfield, these are prepared on a daily basis during the afternoon of the day preceding the journey by using a facility in the computer software. They are then delivered to the particular operators concerned at Lewes bus garage.

For booked clients on the Uckfield County Rider the schedule is prepared on a weekly basis as is that for Battle which is sent by post to the operator of that service.

These arrangements have worked satisfactorily.

5 INVOICING

Until recently the broker was producing only an occasional invoice for each agency of the transport provided through the broker.

Within the last year production of invoices for Social Services Department has been on a monthly basis showing journeys actually booked for each centre.

The broker no longer handles invoicing for schoolchildren with booked journeys. The children are issued with passes and the Education Department are invoiced at an agreed set rate per pupil per year. A head count is taken in the October of each year.

6 FINANCE

In assessing the ESCORT project Grigg (1987) made a financial analysis of changes in expenditure resulting from the various co-ordinated schemes that have been introduced.

Savings from co-ordination were offset against the development and setting up costs of the schemes. Also, booking clients on the services entailed the costs of the brokerage system. This comprises

- office accommodation
- a telephone line
- a computer terminal
- operational software
- the transport directory
- an operator.

Planning and development of the brokerage system, including writing of the operational software and setting up the system on the computer, took about 18 months due to the complexity of the project and it is estimated that this represented at least two man years of effort, at a total cost of about £60 000. The purchase/leasing and installation of computer and communication equipment cost some £6 500. Staff (broker plus part-time assistant) costs and overheads during this period are estimated to have been £36 000. Thus the planning and development costs of the brokerage system amount to some £102 000.

Subsequently additional software was written, for example, a facility for producing the invoices.

Current cost of brokerage (including overheads) is about £17 000 per annum.

Brokerage activity should reduce the time spent on organising transport by Education and Social Services staff and this should off-set to some extent the brokerage cost. However it is difficult to assess whether any such savings have been realised.

In Grigg (1987) it was estimated that the ESCORT schemes then justified about half the cost of the broker. Since that time additional schemes have been introduced. These have not been studied in detail, but their additional benefits will help to offset more of the total cost of the broker.

7 DISCUSSION AND CONCLUSIONS

1. Experience to date has shown that the concept of a transport broker within a County Council has the potential to improve services and reduce costs. The geographical scope of the broker has now been extended beyond the original project study area to Rye and Battle and could be widened further.

2. The deregulation of bus services following the 1985 Transport Act resulted in a decision by the County Council to move towards a more closely integrated provision of school and public transport than hitherto. One of the effects of this could be to increase the number of daily passenger journeys handled by the broker. Once all existing Education contract routes are entered into the computer, possibilities for sharing could then be investigated. These tasks have not as yet been carried out. Before this can be done it will be necessary to write a faster routine for entering the list of scholars provided by the Department.

3. The original planning for the broker envisaged co-ordination between agencies within the County Council together with Health Authorities and Voluntary bodies. So far the latter two groups have been little involved, but there is scope and benefit from developing links with them. The main health agency is the Eastbourne Ambulance service which organises a considerable amount of non-emergency transport, mainly to get patients to hospital for day

care. The service runs a centralised planning system for the whole of the County based in Eastbourne. The basis for a link between the county transport broker and the ambulance centre will be determined by management commitment on the part of the County and the Health Authority. However, in the context of patient transport the level of involvement of the Health Authority may always be small. Most of the patients who attend Day Hospitals are either extremely frail or psycho-geriatric and it is doubtful whether their journeys could be successfully integrated with those of other passengers.

Also, due to the change in policy to remove patients from mental hospitals into community homes run by Social Services, there will be less Health Authority involvement from this source. Previously some of these patients attended outside training centres and it was possible that a few would be travellers on the Rider vehicles. Appointment times of outpatients attending clinics are very variable and in most cases it is unlikely that the Rider timetables would be flexible enough to be of service.

4. At one stage it was envisaged that the broker would keep an updated record of voluntary car drivers and also take bookings from social services staff on behalf of clients. At the present time it has been decided that there is little point co-ordinating the existing organisation of voluntary car drivers.

5. The present scale of operations justifies a computer booking system. However the current software could cater for an operation of about twice the size of the present one.

6. It would be helpful if the present broker system were made more 'user friendly'. For example, there is no facility which can search automatically for a suitable vehicle to meet a specific transport request. The broker has at present to consult a list of vehicle journeys and the times at various zones to check which vehicle is suitable and at what time.

Also no fare tables are stored. Each fare is entered manually as the program does not calculate cost from origin to destination zones. Before making the software system available to other organisations it would be necessary to write some sort of operating manual.

7. On visiting the centres receiving booked clients favourable comments were made regarding the helpfulness of the broker and staff were generally content with the present broker arrangement.

8. There is probably scope for more County Rider services and other forms of co-ordination. These additional activities could be handled with only a modest increase in broker cost.

8 ACKNOWLEDGEMENTS

The author would like to acknowledge the co-operation of staff in East Sussex County Council, particularly Mrs P A Hogg and Miss J Dallen.

This report was prepared in the Transport Planning Division of the Safety and Transportation Group of TRRL.

9 REFERENCES

DAVIES, H E H (1987). The East Sussex Transport Broker: a preliminary report. *Department of Transport TRRL Report RR88:* Transport and Road Research Laboratory, Crowthorne.

DEPARTMENT OF TRANSPORT AND EAST SUSSEX COUNTY COUNCIL (1981). Lewes Area Public Transport Study.

GRIGG, A O (1987). An assessment of the East Sussex Co-ordinated Rural Transport project (ESCORT). *Department of Transport TRRL Report RR112:* Transport and Road Research Laboratory, Crowthorne.

WATTS, P F (1985). Co-ordinated public transport in East Sussex: County Rider services 823 and 825. *Department of Transport TRRL Report RR7:* Transport and Road Research Laboratory, Crowthorne.

Printed in the United Kingdom for Her Majesty's Stationery Office
Dd8222739 2/89 C4 G426 10170