

Changing Long-Distance Passenger Markets in a Deregulated Environment

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In 1987 competition between bus and rail services in New South Wales was permitted for the first time on two transport corridors: the Sydney-Canberra and Sydney-North Coast. In 1988 long-distance bus services in the rest of the state were deregulated. Deregulation effectively ended the 57-year monopoly of intrastate passenger transport by the railways. The legislative framework of long-distance passenger travel in New South Wales between 1920 and 1988 is outlined, changes in passenger profiles are described, and structural changes on the Sydney-Canberra and Sydney-North Coast corridors following deregulation are examined. The conclusions from this study indicate that deregulation has had significant and positive effects on the intrastate long-distance travel market through lower fares, increased service, better modal choice for consumers, and increased industry efficiency through rationalization.

In the last decade a worldwide trend toward deregulation of transport services has occurred, and Australia has been no exception. Between 1986 and 1988 the New South Wales (NSW) State Government followed the overseas lead of deregulation by relaxing the strict regulations governing the entry of bus operators into the intrastate long-distance bus passenger market. This heralded a major change in government policy as long-distance bus services were for the first time allowed to compete with intrastate rail services.

The purpose of this paper is, first, to briefly outline the regulation of intrastate transportation in the State of New South Wales before 1986 and the events leading up to the final stages of deregulation in 1988. Second, the paper provides a base of information on changes to the long-distance intrastate passenger market. Specifically, changes in passenger markets, travel demand, and service characteristics along the Sydney-Canberra and Sydney-North Coast corridors are examined (Figure 1). In this context the aim is to provide a preliminary assessment of the impacts of deregulation on the intrastate long-distance passenger market.

BACKGROUND

Before 1987 long-distance transport in New South Wales was controlled by the 1931 State Transport (Co-ordination) Act. The purpose of the act was "to provide for the improvement and for the co-ordination of means of and facilities for locomotion and transport." However, under section 17(3) of the act, the Commissioner of the Department of Motor Trans-

port (DMT) was required to consider whether the service would lead to unnecessary and wasteful competition before issuing a license. There is little doubt this legislation was used to restrict the operation of the long-distance bus industry and effectively prevent competition between bus and rail services.

The first long-distance intrastate bus service within NSW commenced in 1956 between Sydney and Canberra. Following a long court case, the Ansett-Pioneer bus company was given permission to commence services on this corridor even though rail services existed between Sydney and Canberra. Ansett-Pioneer was given permission to commence operations, but with strict conditions restricting the arrival and departure times of services (1). Ansett-Pioneer remained the sole operator on the route until 1986 despite receipt by the DMT of numerous applications to operate services.

The next significant intrastate bus service in NSW did not commence until 1970. The Sydney-Broken Hill service began operating in response to political pressures from isolated country electorates in far west NSW. The license was issued on the condition that the operator not convey passengers traveling between Sydney and Narromine, where rail services were already operating. Between 1970 and 1986 15 additional intrastate bus services were granted licenses to convey passengers between isolated rural regions and Sydney. These services were not considered to be competitive threats because most did not operate close to rail services (2).

In 1985 the government initiated a review into the long-distance bus industry as a result of growing recognition that existing transport services in NSW were inadequate. The major thrust of complaints came from rural residents who were dissatisfied with existing bus and rail services. They were being forced to travel long distances to join bus or rail services while interstate bus services passing through their towns were prohibited from picking-up and discharging passengers. Further pressure came from the tourism industry. Tourist operators were concerned the existing policy was constraining the ability of both domestic and international tourists to travel in NSW (2).

The review concluded that existing transport services were not meeting the needs of the traveling public and that the protection of existing transport services at the expense of the traveling public and other state interests could not be justified (3). Despite recognition that reduced regulation would procure substantial benefits to the public, there was concern within the government and the State Rail Authority (SRA) about the effect of increased bus competition on rail revenue (1,4). Therefore, instead of pursuing full-scale deregulation immediately, it was found in the review that "[I]t was necessary to demonstrate that the expected benefits were actually

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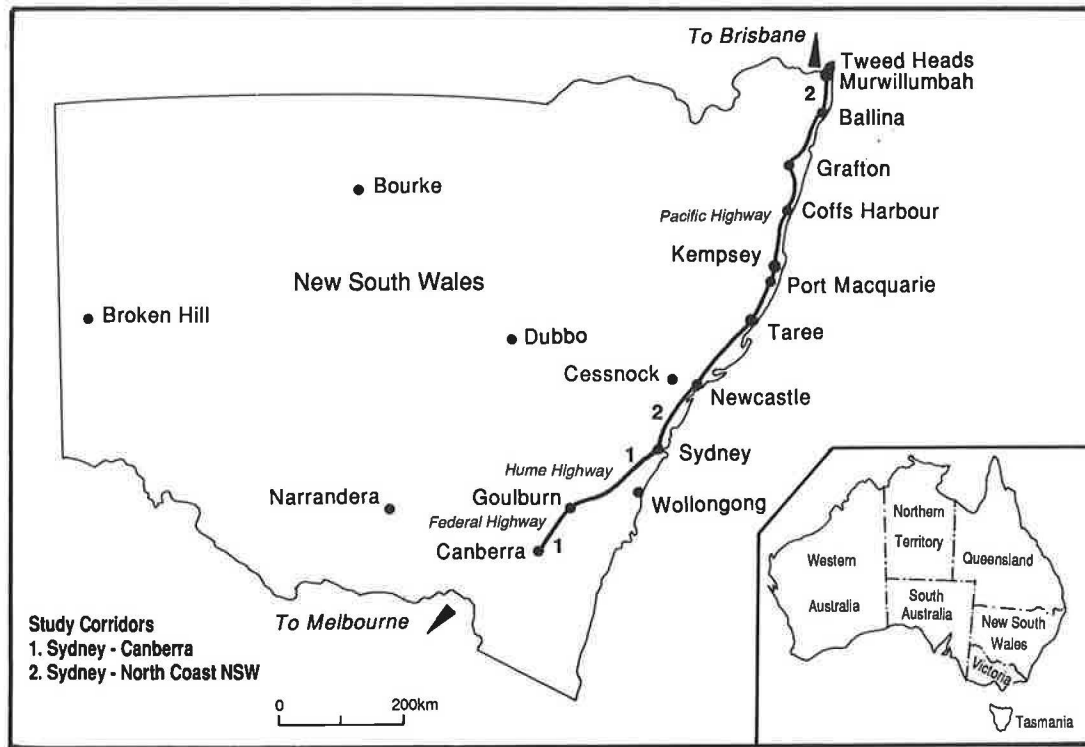


FIGURE 1 Study Corridors.

achievable before making a recommendation for a more general change in policy. . . .” and the best possible way to achieve this was to conduct a trial liberalization on two transport corridors within NSW: Sydney-Canberra and Sydney-North Coast (Figure 1). Unlike governments in the United Kingdom and United States, the NSW government was cautious in its approach to easing regulation of the intrastate bus industry.

The Sydney-Canberra and Sydney-North Coast corridors were selected for the trial by the DMT because both corridors had high demand and therefore could support competition, and the SRA would not suffer significant revenue losses (3). The trials commenced in November 1986 and were to last for a period of 6 months. However, they were extended four times between November 1986 and November 1988, and another corridor, Sydney-South Coast, was added. During this period, long-distance services were defined as those carrying passengers further than 160 km in NSW. After 6 months of trial liberalization, the Bureau of Transport Economics (5) concluded as a result of increased intermodal and intramodal competition, “[T]he major beneficiaries of the trial were the travelling public due to significant improvements in bus frequencies and reduced fares. . . .” (see Table 1).

Deregulation of the intrastate long-distance bus industry in NSW was completed in November 1988 with the passing of the State Transport (Co-ordination) Amendment Act.

The new act significantly eases entry conditions into the market. In the consideration of a license application from a long-distance bus operator emphasis is now placed on whether the service is necessary and desirable in the public interest. Because licenses are still required it would be more appropriate to use the term partial deregulation instead of dereg-

ulation, whereas in Britain deregulation of intercity bus services in 1980 entailed the abolition of licencing for routes (6).

The government also examines bus timetables to ensure that they are structured in such a way that the bus travels within the speed limits set for heavy vehicles. This occurred following several horrific road crashes involving long-distance buses.

The easing of entry conditions has seen a proliferation of intrastate long-distance bus services in NSW. In the 12 months following deregulation, 40 bus operators were licensed to operate more than 84 routes throughout NSW.

DATA SOURCES AND METHOD

The statistical analysis reported in this paper is based on surveys of bus and rail passengers undertaken by the Bureau of Transport Economics (BTE) to monitor and evaluate the impact of trial liberalization on the traveling public and competing modes of transport along two of the trial corridors: Sydney-Canberra and Sydney-North Coast. Other data sources are used for descriptive purposes only.

The BTE used on-board random surveys to elicit information from bus and rail passengers traveling on both corridors during the peak period (January 14–21, 1987) and the off-peak period (April 2–8, 1987). The sample frame consisted of bus operators who were granted permits to convey passengers over the two corridors and rail services that competed directly with these services.

A required sample size of 900 for both the peak and off-peak surveys was based on the assumption that 10 percent of

TABLE 1 CHANGES IN INTRASTATE SERVICE LEVELS

Centre	Bus Frequency Pre Trial	Bus Frequency During Trial ¹	Bus Frequency 1989 ¹	Bus Frequency 1991 ¹	Bus Fares During Trial	Bus Fares Pre Trial	Economy Rail Fares ²	Range of Air Fares ²
Taree	-	28	25	15	\$20-\$25	n.a.	\$25.70	\$84-\$98
Port Macquarie	3	18	21	11	\$19-\$25	\$32.70	n.a.	\$96-\$135
Kempsey	-	26	26	16	\$25-\$30	n.a.	\$33.70	n.a.
Coffs Harbour	-	26	25	17	\$25-\$30	n.a.	\$37.90	\$107-\$159
Grafton	-	21	20	15	\$25-\$32	n.a.	\$37.90	\$125-\$128
Ballina	2	19	26	14	\$28-\$35	\$39.80	n.a.	n.a.
Tweed Heads	-	21	27	16	\$30-\$41	n.a.	n.a.	\$152
Canberra	2	20	40	37	\$15-\$18	\$20.00	\$21.30	\$67-\$90

1. Daily bus frequency in each direction including interstate services.
 2. Economy fares prior to and during trial liberalisation.
 - Interstate services passed through these centres but were not permitted to carry intrastate passengers.
 n.a. Not applicable.

Source: Department of Motor Transport (1988) and Bus Company Timetables.

TABLE 2 NUMBER OF PASSENGERS SURVEYED (7)

Corridor	Peak ^a		Off-Peak ^a	
	Bus	Rail	Bus	Rail
Sydney-Canberra	210	125	137	116
Canberra-Sydney	201	156	233	25
Sydney-North Coast	272	270	99	197
North Coast-Sydney	220	263	154	191
Total	903	814	623	529

^aBoth Peak and Off-Peak surveys are used in the analyses reported in this paper.

bus and rail passengers diverted from other modes of transport (7). The lower-than-required sample size for the off-peak survey is associated with lower-than-anticipated patronage levels and limited resources available for follow-up field work. Table 2 provides a breakdown of the number of usable questionnaires that were returned by passengers on each corridor traveling by bus and rail. All the peak and off-peak surveys were used in the analyses reported in this paper.

The actual percentages given in this paper (Tables 3 and 4) differ slightly from those in the BTE report (7) because the data base used for statistical analysis in this study was a modified version of the original and contained fewer data coding errors.

The questionnaires sought information on the travel characteristics of passengers, their attitudes to particular aspects of the mode on which they were traveling and their socio-economic characteristics.

It should be stressed that in this analysis there was no control over statistical aspects of questionnaire design or survey methodology. Data collected by the BTE were used together with data from other sources to examine the nature and extent of changes following liberalization and deregulation.

RESULTS

Pretrial Liberalization

Information on base long-distance services, the market, and general travel demand on the two corridors before trial liberalization is inadequate and limited to published data from the National Travel Survey of 1977-78 (8) and reports from the Bureau of Transport Economics (5). The data sets are not directly comparable given different sampling and estimation methods; they were simply used to highlight trends. No complete time series data were available for this purpose.

The National Travel Survey provides sample data on market share on the two corridors based on a sample of households (Table 5). On both corridors automobile trips dominate long-distance travel, followed by air, rail, and bus trips respectively. More bus trips are commonplace on the Sydney-Canberra corridor, which is a 5-hr journey, compared with a 15-hr journey on the Sydney-North Coast corridor (extending to Brisbane). The number of services on both corridors was not reported.

TABLE 3 SOCIAL CHARACTERISTICS OF BUS AND RAIL PASSENGERS

	Sydney-Canberra		Sydney-North Coast	
	Bus (n=774)	Rail (n=421)	Bus (n=737)	Rail (n=911)
Sex	(percentage)			
Male	41	41	40	40
Female	59	59	60	60
χ^2 (df=7)	0.002*		0.005*	
Age	(percentage)			
> 15	5	8	11	5
15-19	15	14	20	12
20-29	32	21	21	21
30-39	16	15	13	9
40-49	11	17	8	13
50-59	9	11	9	11
60+	12	14	20	29
χ^2 (df=6)	23.69**		65.35**	
Occupation	(percentage)			
Student	23	26	26	15
H/hold Duties	10	15	15	13
Clerical	14	7	8	4
Plant/Mach. Op.	1	1	2	1
Salesperson	4	1	2	1
Professional/ Tech	21	14	9	8
Tradesperson	4	5	7	4
Semi- Professional	2	2	4	3
Labourer	2	4	4	4
Manager/Admin.	7	7	3	9
Unemployed	3	3	4	6
Retired	16	10	16	32
χ^2 (df=11)	45.75**		120.85**	

* Not Significant

** Significant at the 0.01 level

Source : Calculated from BTE Passenger Surveys, 1987.

In 1984 the BTE estimated that long-distance bus passenger numbers had been increasing by about 60 percent nationally between 1980 and 1984. Furthermore, between 1980 and 1984 the relative position of air, rail, and bus fares changed, with bus fares declining after the entry of new bus operators. In the same time period, economy rail and air fares increased by more than 50 percent (5).

On the Sydney-Canberra corridor the BTE estimated that 48,000 bus passenger trips were completed in 1984, a 108 percent increase over figures for 1977 to 1978 (Table 5). Air transport statistics indicated that a total of 484,814 passengers traveled by air on this corridor during 1983 and 1984 (9).

On the Sydney-North Coast corridor figures are only available for Sydney to Brisbane interstate services. It was estimated that 451,000 passenger trips were completed by bus in 1984, compared with 1,198,298 air passenger journeys at the same time (9).

Corresponding data for rail travel are not available, but it has been reported that intercity rail (XPT) services had undergone fare reductions during 1983 and 1984, which resulted in increased patronage. The highest percentage increase was on the Sydney-Canberra corridor (67.2 percent), whereas pa-

TABLE 4 TRAVEL CHARACTERISTICS OF BUS AND RAIL PASSENGERS

	Sydney-Canberra		Sydney-North Coast	
	Bus (n=754)	Rail (n=420)	Bus (n=739)	Rail (n=893)
Trip Purpose (percentage)				
Holiday	22	24	28	35
Visiting Friends	48	37	38	35
Personal Business	10	15	8	5
Business/Work	7	18	7	8
Holiday/Visiting	13	16	19	17
χ^2 (df=4)	48.09**		13.29**	
Length of Stay (percentage)				
1 - 3 days	54	35	31	21
4 - 14 days	31	40	55	63
15 +	15	25	14	16
χ^2 (df=2)	9.87**		18.72**	
Size of Party (percentage)				
Number of Family Members				
None	44	44	56	50
1+	56	56	44	50
χ^2 (df=1)	0.01*		6.69***	
Number of Friends				
None	57	61	67	61
1 +	43	39	33	39
χ^2 (df=1)	2.03*		5.25**	

* Not Significant

** Significant at the 0.05 level

*** Significant at the 0.01 level

Source: Calculated from BTE Passenger Surveys, 1987.

TABLE 5 PASSENGER DATA, PRETRIAL LIBERALIZATION

	National Travel Survey 1977-78 ^a ('000 Passenger Trips) ^b		Bureau of Transport Economics 1984 ('000 Passenger Trips) ^b	
	Sydney-Canberra	Sydney-Brisbane	Sydney-Canberra	Sydney-Brisbane
Air	85	235	552	1,198 ^c
Rail	13	15	NA	NA
Bus	34	8 ^d	48	451

NOTE: NA = not applicable.

^aBased on national sample of households. Corridor trips are based on sample households who reported trips on these corridors.^bAll passenger figures are two-way (round) trips.^cDepartment of Aviation statistic for financial year 1984-85.^dThe survey provided one-way trips for bus on this corridor. This figure has been doubled.

tration increased by 13.6 percent on the North Coast XPT rail service (10). These increases occurred in the context of long-term declines in country rail travel in NSW.

Passenger profiles for the study corridors are not available for the pretrial liberalization period. The National Travel Survey and BTE surveys of air and bus travelers in 1983 to 1984 only provide a national profile of the long-distance passenger market, which can be compared with emerging profiles during trial liberalization in NSW.

Generally, these surveys show that more bus than rail travelers come from lower income categories than do automobile

and air travelers. Both bus and rail show a high proportion (more than 60 percent) of passengers in the young and old categories. A large proportion of bus and rail travelers are retired, students, or unemployed. The sex of passengers also distinguishes the travel market. Female passengers account for 60 percent of bus and rail passengers and slightly more than 20 percent of the total airline market (5).

Travel by bus, rail, and automobile for private reasons is similar and accounts for 80 percent of trips on each mode. The air market is different, with only 53 percent of journeys being for private purposes and 40 percent for business (5).

In summary, the period before trial liberalization on the study corridors was characterized by increasing competition among long-distance bus operators in NSW, lower fares, and a growing bus passenger market relative to rail and air.

Effects of Trial Liberalization

As Table 1 indicates, trial liberalization on both corridors produced significant changes in service levels for the traveling public. On both corridors the frequency of bus services increased significantly. On the North Coast corridor the change in service frequency was substantial, and all the more significant, as interstate bus companies were now able to pick up and discharge passengers in centers along the corridor. In addition, trial liberalization enabled better accessibility to bus services for people from many North Coast centers. Direct services were also available, whereas previously passengers had to transfer. Travelers now enjoyed a greater choice of operator and type of vehicle.

Table 1 also shows reduced fare levels on both corridors during liberalization. By comparison, rail and air fares remained unchanged, as did service levels. Toward the end of the trial period, East-West airlines introduced discounted fares on the North Coast corridor. Failure to respond to increased bus competition had a significant impact on the revenue of rail and air operators in both corridors. On the Sydney-Canberra corridor 64 percent of total revenue loss was attributed to the fall in rail passenger revenue, as compared with 40 percent of total revenue loss on the Sydney-North Coast corridor. Revenue loss to regional airlines on the Sydney-North Coast corridor was higher compared with rail losses: 60 and 40 percent, respectively (7).

Table 6 shows the estimated demand for bus, rail, and air services over the two trial corridors during trial liberalization. On the Sydney-Canberra corridor intrastate bus patronage (134,000 passengers) is more important relative to rail, and represents more than one-quarter of all passengers traveling between Sydney and Canberra. The increase in demand for bus travel during the trial on the Sydney-Canberra corridor compared with the same period 12 months earlier was 80 percent (74,500 passengers). Compared with BTE data for 1984 (Table 5), the increase was in the order of 65 percent.

On the Sydney-North Coast corridor the intrastate passenger market is dominated by air, rail, and bus, respectively, and services to highlight the presence of different modal characteristics and market shares as compared with the Sydney-Canberra corridor. Of the total passengers over this corridor (1,090,000), intrastate rail patronage accounted for 18 percent of the market. However, of the combined bus and rail market, nearly 70 percent (197,000) traveled by rail transport. The estimated increase in demand for bus travel during the trial

compared with the same period 12 months earlier was 130 percent (42,000 passengers).

Of interest are estimates of passengers diverted to bus services from other modes and the number of generated trips. BTE calculations suggest that between 35 and 42 percent of the 134,000 estimated bus passengers diverted from other modes of transport to bus services on the Sydney-Canberra corridor. The largest percentage diverted from rail, followed by automobile, then air (7). On the Sydney-North Coast corridor, fewer passengers diverted from rail, air, and automobile to buses. Between 26 and 37 percent of estimated bus patronage (97,000) diverted from other modes.

The BTE study indicated that, on the Sydney-Canberra corridor, fare reduction was the factor that most influenced the decision of passengers to divert to bus travel from competing modes of public transport. More flexible departure and arrival times also influenced the decision to travel by bus. Similar reasons also influenced bus travelers on the Sydney-North Coast corridor, however, fare reductions were not as influential on this corridor.

The trends identified during trial liberalization clearly had their beginnings in the preliberalization period. Bus patronage continued to increase at the expense of rail, especially on the Sydney-Canberra corridor. Rail patronage, although declining at this time, was still more important than bus travel on the Sydney-North Coast corridor because of longer distances and the availability of overnight sleeper accommodation on Sydney-to-Brisbane trains. However, since completion of trial liberalization the declining long-distance passenger market for rail has led to a major rationalization of country and intrastate rail services in NSW.

The sex distribution of passengers does not vary statistically across modes on both corridors (Table 3). Females constitute a higher proportion of bus and rail users than males on both corridors and appear to be a considerable segment of the traveling public—a trend already evident before liberalization. There is a distinct market segmentation based on the age distribution of passengers. The bus market on both corridors is dominated by young travelers. On the Sydney-Canberra corridor approximately one-third of bus passengers are between 20 and 29 years old, compared with 21 percent of rail passengers on the Sydney-North Coast corridor. Approximately one-third of bus passengers are under 20 years of age.

The rail market on both corridors is dominated by passengers older than 50 years old. Twenty-five percent of rail passengers on the Sydney-Canberra corridor are older than 50, and the proportion increases to 40 percent on the Sydney-North Coast corridor.

The quite distinct market segmentation based on age can be partly attributed to the concession fares offered by the railways to pensioners. Also, people with limited mobility,

TABLE 6 ESTIMATED PASSENGERS DURING TRIAL LIBERALIZATION

	Thousands of Passengers			
	Sydney-Canberra	Canberra-Sydney	Sydney-North Coast	North Coast-Sydney
Air	150	153	209	183
Rail	35	40	95	102
Bus	63	71	49	48

particularly the aged, are discouraged from using conventional bus services because it is difficult for them to use steps.

The proportion of middle-aged travelers on both modes is quite low but higher on the Sydney-Canberra corridor because of business travelers. Compared with passenger profiles in preliberalization times, the young and old continue to be the major customer base in the long-distance passenger market.

On the Sydney-Canberra corridor, the majority of bus and rail passengers are students (Table 3). The next two largest occupational groups differ between the modes. The next largest occupational groups on bus services are passengers employed in professional occupations followed by retired people, whereas on rail services, the next two largest occupational groups are passengers engaged in household duties and professional occupations.

On the Sydney-North Coast corridor, a different market segmentation emerges. Students dominate the bus market (26 percent), whereas retired persons make up the largest segment of rail passengers (32 percent). The next largest occupational group on bus services is the retired (16 percent), and the next largest group on rail are students (15 percent). Note that bus and rail travel on both corridors is not associated with lower occupational status groups or with the transportation disadvantaged.

Table 4 shows that discretionary travel (e.g., to visit friends and relatives) and holiday travel were the most important reasons for travel on both modes.

The only significant difference in trip purpose between the modes occurred on the Sydney-Canberra corridor. Business travelers make up a significantly larger proportion of rail passengers than bus passengers. This is quite surprising given the 10-fold increase in bus services and wider selection of arrival and departure times that occurred after the relaxation of restrictions on buses (Table 5). Buses are now an ideal mode for business travel between Sydney and Canberra because business travelers now have a same-day return service, allowing up to 8 hr in either city. The rail timetable does not offer such flexibility, and one would expect bus travel to be more popular with business travelers.

On the North Coast corridor, discretionary travel is the most important reason given for making the journey, and obviously the tourist functions of the region are reflected in this result. Very few passengers on either mode make personal or business trips.

There is a distinct market segmentation between bus and rail services on both corridors in terms of the length of stay at destination of bus and rail passengers (Table 4). On the Sydney-Canberra corridor, the bus is more popular for stays of less than four days (54 percent), whereas the train is more popular for longer duration stays, particularly those between 4 and 14 days (40 percent).

On the Sydney-North Coast corridor, close to two thirds of rail passengers and more than 50 percent of bus passengers stay at their destination between 4 and 14 days. Buses on this corridor are also more popular than rail services for short duration stays (less than 4 days), whereas rail services are more popular than buses for stays of longer than 2 weeks.

On the Sydney-Canberra corridor bus and rail passengers are more likely to be traveling either with the family or alone (Table 6). There is no difference between modes in the proportion of bus and rail passengers traveling with family (56

percent), and the bus is slightly more popular for traveling with friends. The most interesting result to emerge from this table is that group travel on both modes is more likely to be in family groups than in groups of friends.

The Sydney-North Coast corridor differs from the Sydney-Canberra corridor in that passenger segmentation based on size of travel party is slightly more distinct on this corridor. A higher proportion of rail passengers on this corridor either travel with family (50 percent) or friends (39 percent) than on the buses (44 percent and 33 percent, respectively). Presumably, the large proportion of elderly travelers on rail services would be more sensitive to comfort than factors such as departure and arrival times.

Interestingly, despite the introduction by bus companies of high-quality luxury coaches with reclining seats, toilets, air conditioning, and videos in an effort to improve the public perception of bus services, comfort has been the dominant factor for the railways in attracting passengers (7).

This factor becomes even more evident when considering passengers' reasons for diverting to buses. Only 17 percent of bus passengers on the Sydney-Canberra corridor diverted to the bus because of the comfort of coaches (11).

Effects of Deregulation

Deregulation of the intrastate long-distance bus market in NSW occurred in 1988 following the success of trial liberalization. Although a proliferation of intrastate bus services occurred across the state, events during the past 2 years have led several bus operators on the study corridors to leave the market, with resulting changes to service schedules. However, the contestable market for long-distance services remains sustainable, with continued growth in the bus passenger market and consolidation of market share positions.

The most significant changes to have occurred in the long-distance passenger market relate not to bus services but to rail and air services. As mentioned earlier, rural rail services in NSW had experienced declining patronage and revenue over many years, with significant losses occurring during trial liberalization. As a result, country rail services underwent a major reorganization that involved substitution of buses for rail services, formation of a long-distance government bus service called Countrylink, and concentration of rural rail passenger services on trunk line intercity (XPT) train services.

Travelers on the Sydney-Canberra corridor were able to benefit from rationalization in that Countrylink bus service was added to the market to replace the one bus company that left the market. Several Countrylink bus services also commenced on the Sydney-North Coast corridor. Countrylink now competes with remaining rail services and with other long-distance bus operators.

In addition, the NSW government has partially deregulated the intrastate airline system, thereby allowing increased competition on main passenger corridors and commuter routes. However, during the past 12 months some commuter airlines have withdrawn services from low-volume routes as a direct result of increased competition from buses.

The government's policy of deregulation, rationalization, and privatization of transport supply has created a competitive market on the major trunk routes where efficiency and market

TABLE 7 PASSENGER DATA SINCE DEREGULATION

		Sydney-Canberra	Sydney-North Coast
1988-89	AIR ^a	621,471	218,244
	RAIL ^c	220,698	796,310
	BUS	na	na
1989-90	AIR ^a	344,252	153,080
	RAIL ^c	148,221	671,529
	BUS	na ^b	na
1990-91	AIR ^a	556,168	204,667
	RAIL ^c	70,051	606,532
	BUS	na ^b	155,000 ^d

^a Department of Aviation statistics.

^b Bus passenger figures are available for Countrylink services.

^c Figures obtained from State Rail and Countrylink.

^d Estimate only based on sample data supplied by the Department of Transport.

na Not Available.

share are fundamental for sustained operation. Bus companies have also consolidated their position on the lower volume intrastate routes following cessation of rail service to many small centers.

It is difficult to assess the impacts of deregulation on the passenger market in the study corridors because no follow-up studies have been undertaken. Comparative statistics on travel demand and market share are also limited. Complete statistics are available only for air and rail services (Table 7). However, it seems reasonable to suggest that bus patronage on the Sydney-North Coast corridor increased significantly in 1988 due to demand generated by EXPO 88, which was held in Brisbane. The examination of 1988 bus timetables on this corridor showed the same number of bus operators as during the trial period, but an increase in the number of services provided to certain centers (Table 1). Note that services doubled on the Sydney-Canberra corridor, whereas the number of bus operators remained constant. Bus patronage on both corridors was also boosted by rail service cutbacks and lower fares relative to rail and air.

In 1989 bus patronage on both corridors would have increased once again due to the national pilots' strike, which grounded all intercity services. Tourism and business traffic was diverted to bus, rail, and automobile transport (Table 7). On the Sydney-North Coast corridor a series of horrific road accidents involving long-distance buses affected patronage levels for certain operators (both operators have since ceased operation), and the NSW government came under increased pressure to improve rail services (especially overnight sleeper services to Brisbane), enforce speed limits for buses and trucks (legislation has since been enacted), and commence major road improvements on the main highway linking Sydney and Brisbane. Three bus operators left the Sydney-North Coast market in late 1989, with a resulting decline in service frequency (Table 1).

The dynamics of the long-distance passenger market were once again highlighted in 1991 when a new airline (Compass Airlines) commenced intercapital services following national

deregulation of the domestic airline system. Compass commenced services between Sydney and Brisbane (1 hr) with heavily discounted airfares. It is now quicker to reach the North Coast of NSW by flying to Brisbane and traveling south by bus. The entry of a new air carrier into the long-distance passenger market most certainly affected travel demand and market share among bus and rail operations. However, Compass went into liquidation on December 21, 1991, and attempts are under way to revive the airline. At least two new airlines are scheduled to commence intercapital service in 1992.

Deregulation has continued to provide major benefits to the traveling public as a result of improvements in service frequencies, lower fares, and improved quality of service. Improved access to tourist centers on the North Coast of NSW and access to larger centers for residents of small communities are additional benefits. Furthermore, it appears that the intrastate long-distance passenger industry is more efficient and responsive to changing circumstances.

CONCLUSION

Strict regulations governing the operation of long-distance intrastate bus services in NSW between 1931 and 1987 prevented competition between bus and rail services. Without the competitive threat of buses, the railways had an artificial monopoly of the intrastate land passenger market. Deregulation of the intrastate bus industry created an environment in which bus services now represent a significant threat to rail services. Further, deregulation of the NSW and national airline system has produced lower air fares, which, in turn, now represent a threat to intrastate long-distance bus and rail services. Passenger markets and travel demands are continually responding to changes within the intrastate long-distance passenger industry.

This discussion has shown that trial liberalization and deregulation have been beneficial to both the industry and the

traveling public. The authors have also shown that the industry is dynamic and responsive to changing circumstances. The future scenario is of an even more dynamic and competitive intrastate long-distance passenger industry.

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