

**IPART Review of Bus and Ferry Fares 2005**  
**Submission from The University of Newcastle**  
**Student Semester Ticket**

19 August 2005

**Summary**

The University of Newcastle is well served by train and bus services, but patronage has been falling in recent years. In order to increase patronage and to reduce traffic and parking demands on the Callaghan Campus, a decisive effort is needed to change the travel habits of a significant number of students by encouraging them to use public transport. In line with successful schemes at many Universities around the world, the University proposes the introduction of a Student Semester Ticket which allows unlimited travel on trains and buses and is sold at a marketable price for students.

**University Support for Public Transport**

Since 1995, the University of Newcastle has spent nearly \$5 million on providing and enhancing public transport facilities at the campus. It built a new internal road so that all buses can travel through the campus, and it provided four high-quality bus stops each with bus bays, shelter for up to 50 people, seating, lighting, security phones and comprehensive information displays showing departure details and route maps for all bus and train services.

The University provided road and pathway access with lighting and security phones for the new railway station at Warabrook which opened in October 1995. The University runs an internal campus shuttle bus linking the bus stops with the railway station.

There are 68 trains per day operated by CityRail at Warabrook Station during academic hours (nominally 7.30am to 9.30pm), serving the Newcastle, Maitland and Hunter Valley corridors. In the same time period, there are 233 buses serving the University on 13 routes provided by four operators.

Each year the University produces a comprehensive Transport Guide, giving details of the coordinated timetables and routes for all buses and trains serving the campus throughout its catchment area in the Central Coast and Hunter Regions. The Guide also includes a network map, cycleway map and explanatory information. The Guide is distributed free on the campus and is available on the University's website at [www.newcastle.edu.au/services/transport/](http://www.newcastle.edu.au/services/transport/).

In February 2005, the University arranged with Newcastle Buses for additional express buses to operate to the campus from the inner Newcastle suburbs where the largest concentration of university students lives. These services are partly funded by the University. They contributed to a 7% increase in patronage in the city corridor in the last year, in marked contrast to an overall decline of patronage of 1%<sup>1</sup>.

The University believes that there is a large potential market for public transport travel by both students and staff which can be tapped if the services are sufficiently attractive. This involves further work on designing services and fare structures that are relevant to travel patterns in the Lower Hunter, and targeted promotional campaigns designed to influence decisions about travel behaviour.

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<sup>1</sup> Transit Planners, *University of Newcastle Travel Modes Survey, Semester 1, 2005*, p. 5-5

## **Patronage Trends**

Despite these positive efforts by the University and initial gains in public transport usage, patronage on public transport services (trains and buses) at the University's Callaghan Campus has fallen by 21% over the last 6 years. At the same time, the number of vehicles coming onto the campus on the busiest days has increased by nearly 6%, the number of vehicles arriving in the morning peak has increased by over 9%, and the peak parking demand has increased by over 21%<sup>2</sup>.

The modal split in favour of public transport for travel to the University has consistently been higher than the regional average of around 5%, but it is falling. In 1999 it reached a peak of over 18% in the morning peak period and over 12% during the whole day. In 2005, it had fallen to less than 11% in the morning peak and over 9% for the whole day<sup>3</sup>. The public transport modal split at the University is still double what it is for the rest of the Lower Hunter Region.

The University is not in a position to increase the provision of campus car parking beyond the current level of over 5000 spaces, one of the highest spaces-to-enrolment ratios in Australian Universities. Already there is significant on-street parking outside the campus. It is university policy that any further parking demand be addressed through travel demand management projects, including greater use of public transport.

The University considers that it is imperative that significant efforts are made to enhance the attractiveness of public transport, and it is prepared to work with transport operators and the State Government to achieve this. However, there has to be an attractive pricing structure to encourage students in particular to use the public transport services that are provided.

There is generally sufficient capacity on the existing bus and train services to accommodate an increase in patronage without increasing fleet requirements. Much of the university travel occurs outside the normal commuter and school peaks.

In the current climate of reforms to public transport services, and with the current IPART review of fares, opportunities now exist for new fare initiatives to be put in place for the start of the academic year in Semester 1, 2006.

## **Proposal**

The initiative proposed in this submission is a Student Semester Ticket that would encourage students to use public transport as an alternative to travelling by car.

The concept behind the Student Semester Ticket is that it would provide for unlimited travel by public transport in the Newcastle Region throughout a Semester. Instead of paying for each individual trip, there would be one up-front payment.

There are several attractive benefits of this concept.

- In the context of student finances, it is probable that parents would pay for the ticket, whereas they wouldn't normally pay for individual trip fares.
- Parents would have more peace of mind that the student would be able to travel to and from University safely.
- There would be a reduced demand by the student on the family car.
- The University will invoice to cost of the ticket as an optional part of the Student Services Fee (as it currently does with the Semester Parking Permit).

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<sup>2</sup> Ibid, plus source data from Travel Mode Surveys in previous years

<sup>3</sup> Ibid, p. 8-3

From the perspective of financial risk to the State Government, particularly in the context of the funding models in the new bus contracts, indicative modelling shows that as the modal split for public transport increases, the government will receive more revenue through the Student Semester Ticket than it would if the current fare structures and patronage trends were unchanged.

Initial research has shown that the concept of a Student Semester Ticket is being considered by other Universities in Australia (including New South Wales and Monash) and has been successfully introduced in university cities in Australia (Canberra) and overseas (including Nottingham in England and Dresden in Germany). In all cases, the objective is to enable students to use public transport for most of their daily travel (not just university travel), thereby reducing their inclination to arrange car travel. The social and economic circumstances of students make them more amenable to this travel profile than many other groups in the community.

In Newcastle, a Student Semester Ticket, in conjunction with targeted marketing and improved train and bus services, would aim to restore the public transport modal split to 12.5% in the short term and increase this to 15%. As the regional modal split for public transport increases in response to integrated and improved services, the modal split for university travel will grow to the sustainable target of at least 20%. In fact, given that the modal split for university travel is higher than the regional average, reaching 25% would be achieved if the regional target of 20% is achieved by 2020.

### **Financial Modelling**

A key to the success of the Student Semester Ticket is to set a price that is attractive to students but which will increase the fare revenue obtained from student travel.

An initial model has been prepared based on Travel Modes Survey data compiled by the University each year. More detailed analysis can be undertaken with actual travel data if the concept is approved in principle. At this stage, the model provides sufficient indicative outcomes to justify further consideration of the proposal.

Data about travel by public transport at Callaghan Campus is available for March each year from 1999 to 2005, and for August each year from 1996 to 2003. This data is used in the model together with some reasonable assumptions to produce a methodology to analyse the financial impacts of the proposed semester ticket on student farebox revenue. The model can be validated with actual travel and fare data from the operators as necessary.

In March 2005, there were 3773 trips made on Tuesday (which in previous years was the busiest day) by public transport to and from Callaghan. Of these, an estimated 3463 were made by students at an estimated average student fare of \$1.39, generating an annual revenue of about \$645 000, taking into account the different trip numbers on other days of the week and the overall reduction in travel in Semester 2. The average total fare paid per semester by the average student is about \$165, using a mix of cash and bus TravelTen fares.

In 2005, the fee for a student campus parking permit is \$60 per semester. Day parking tickets are \$3. If day tickets are used on 4 days a week, the semester cost would be \$204 per semester.

In Canberra, a tertiary student term ticket is available for \$55 (\$110 for a Semester). This has proved to be successful in encouraging greater use of public transport by tertiary students.

The University is proposing that the initial Student Semester Ticket is priced at \$90, 1.5 times the semester parking permit fee.

The model shows that if the number of student trips made with a Student Semester Ticket increased gradually from 10% to 50% as the modal split increased from the current level of 9.3% to 25%, total annual revenue from student fares would drop initially by about \$157 000, would break even when the modal split reached about 14%, and could eventually generate an increase in revenue of about \$450 000 annually.

These revenue and modal split increases can only be achieved with a substantial initiative such as a Student Semester Ticket that is priced and marketed to suit the travel culture in the Newcastle Region and which is perceived to be competitive with car travel and parking costs.

The new ticket would be a Newcastle version of the TravelPass ticket. There would not need to be a new ticket type introduced.

### **Bus Reforms**

Under the reforms to bus and rail services being introduced by the State Government, new funding models will be adopted and integrated ticketing will be phased in to regional areas. Financial risk will now be shared by both the government and the operator. Operator payments will not depend solely on farebox revenue.

Under the Ministry of Transport's current implementation program, reforms in the Newcastle Area will not be implemented until sometime in 2007. However, the opportunity exists to develop a pilot project to start in Feb 2006 in order to provide valuable data on patronage potential for the new bus contracts and service integration standards.

### **Ticket Availability**

All enrolled students undertaking campus studies would be entitled to buy a Student Semester Ticket.

This includes full and part time students, overseas students, and full-fee paying students. This simplifies administration and marketing, and avoids problems of discrimination in transport concessions.

Eligibility would normally exclude external students (11.5% of 2004 enrolment). They would not normally be regular travellers to the campus.

### **Ticket Use**

The Student Semester Ticket would be designed to encourage University students to use public transport all the time, hence reducing the incentive to arrange access to a car.

It would be available for any public transport trip, not just University trips, on:

- all Newcastle Buses and Newcastle Ferry services
- all CityRail services north of Wyee, including Scone and Dungog.

When the new funding model is introduced in the Newcastle Region in 2007, it should be possible to extend the use of the Student Semester Ticket to all private bus services currently provided by Toronto, Sugar Valley, Port Stephens, Rover and Blue Ribbon bus companies covering the catchment area of the University. In 2005, people who travelled to and from Callaghan by private bus comprised 4.5% of total bus patronage and 2.9% of total public transport patronage.

The University offers to sell the Student Semester Ticket as one of the optional items associated with student enrolment and administration procedures. The ticket could be issued in conjunction with the student's identity card.

### **Implementation**

The first step is to gain approval in principle through IPART for the introduction of a Student Semester Ticket from the start of Semester 1, 2006.

The University is prepared to work with IPART to undertake more rigorous analysis if more detailed travel data can be obtained.

The University is also prepared to participate in a promotions program in conjunction with the Ministry of Transport and the transport operators, similar to the programs it has run during 2005 to promote the successful Express Bus services.

The University considers that the Student Semester Ticket will not only produce greater revenue for the State Government, it will significantly enhance the government's programs to achieve greater use of public transport, and it will reduce the demand for car parking both on campus and on the surrounding streets at the Callaghan Campus.

The University strongly urges IPART to consider this proposal within the 2005 Review of Bus and Ferry Fares.

Philip Pollard

Director, Facilities Planning and Strategy

19 August 2005

**The University of Newcastle**  
**Student Semester Ticket: Financial Model**  
**Proposal to IPART 2005 Review of Bus and Ferry Fares**

19 August 2005

**Daily Public Transport Patronage March 2005**      Tuesday in Week 3, Semester 1  
*Data in italics is estimates*

	Day Total	Student	Trips	Student Fare
	Trips	% of total		Revenue
<b>Bus</b>				
Arrive	1194			
Depart	1240			
Total	2434			
% Student		90%	2191	
Student Fares:				
: Cash	\$1.30	71%		
: TimeTen	\$1.11	29%	29	
Bus total				\$2,727
<b>Train: Newcastle Direction</b>				
Arrive	418			
Depart	390			
Total	808			
% Student		95%	768	
Student Fares:				
Newcastle	\$1.40	85%		
Fassifern	\$2.20	15%	75	
Train Total				\$2,075
<b>Train: Maitland Direction</b>				
Arrive	277			
Depart	254			
Total	531			
% Student		95%	504	
Student Fares:				
Beresfield	\$1.40	50%		
Maitland	\$2.20	50%	50	
Train Total				\$2,075
PT Trip Total	3773	92%	3463	\$4,802
				Average \$1.39 per student trip
<i>Fares between Warabrook and stations Hamilton to Newcastle are the same</i>				
<i>Fares between Warabrook and other stations are averages for the distances along the Central Coast and Hunter lines</i>				

**Travel Patterns**

	Week totals	Student trip % of Tuesday	
Monday		3359	97% (2005 traffic)
Tuesday	3773	3463	100%
Wednesday		3532	102% (2005 bus and train)
Thursday		3255	94% (2005 traffic)
Friday		2666	77% (2005 traffic)
Week totals		16274	\$22,569
Ratio to Tuesday		4.70	

**Individual travel**

Trips per week	7.0
Average fare paid	\$9.71
Semester	17 weeks
Semester fare paid	\$165

**Fare Revenue**

Semester Revenue	Sem 1	\$383,667
Patronage Change Sem 1 to Sem 2		-32% (2003)
Semester Revenue	Sem 2	\$260,894
Year total		\$644,561

**Semester Ticket Proposal**

Parking Permit	\$60 student: per semester	(2005)
Casual parking	\$3 per day	(2005)

**Proposed price for 2006**

Semester ticket	\$90
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**Modal Split: measured on daytime arrivals, Tuesday**

Total	3773	
Public transport trips	1889	(2005 bus and train)
Daytime arrivals	2.00	Total public transport trips : arrivals by public transport
Ratio		
Total arrivals	20299	by all modes (2005 modal split data)

**Change in Total Revenue as Modal Split grows with increased use of Semester Ticket**

Modal split to pub trans	Daytime arrivals	Total student trips by public transport		% using Semester tickets	Increase in student p t trips per week		Revenue from Student P T Travel			Year Total	Change from current \$
		Tuesday	Week		Number	%	Single trip fares	Semester tickets	Total		
Current 9.3%	1889	3463	16274					\$383,667	\$383,667	\$644,561	\$0
10%	2030	3721	17488	10%	1214	7%	\$267,572	\$22,485	\$290,057	\$487,296	-\$157,265
11%	2233	4093	19237	15%	2963	15%	\$277,978	\$37,100	\$315,078	\$529,331	-\$115,230
12%	2436	4465	20986	20%	4712	22%	\$285,410	\$53,964	\$339,374	\$570,149	-\$74,412
14%	2842	5209	24484	25%	8209	34%	\$312,167	\$78,698	\$390,865	\$656,653	\$12,092
16%	3248	5953	27981	30%	11707	42%	\$332,978	\$107,928	\$440,907	\$740,723	\$96,163
20%	4060	7442	34977	40%	18702	53%	\$356,763	\$179,880	\$536,643	\$901,560	\$256,999
25%	5075	9302	43721	50%	27446	63%	\$371,628	\$281,063	\$652,691	\$1,096,520	\$451,960