

# Transport Education and Training: What is Valued? What is Needed?

Nariida Smith  
Marcus Wigan

Monash University, Australia



## TRANSPORT EDUCATION AND TRAINING: WHAT IS VALUED? WHAT IS NEEDED?

### ABSTRACT

This paper considers the education and training decisions currently being made in the transport industry, especially in Urban Public Transit. It uses Australian data but the issues raised are generally applicable especially in the developed nations. Whilst an increase in formal rather than on the job training is welcomed the method of deciding what training is needed is questioned.

In particular attracting and serving customers are important in passenger transport and are frequently identified as vital to the future of Public Transit. If improvements in these areas are sought education and training priorities may need adjustment. This is especially relevant for women who are often found in customer service roles in the industry.

### INTRODUCTION

There is now fairly general lip service given to the view that “Education and Training” are “a good thing for” or even “essential for” the urban transit (UT) industry but for this to be translated into meaningful action we need to ask what “education and training” and “good for whom”.

The time honored “sitting next to Nellie” where the new employee learned by watching an experienced worker, a form of training by osmosis, is gradually being replaced with formal training. In 1993 39.3% of employees in the Transport and Storage industry in Australia (ABS,1993) took a formal course. Much of this training took place due to the requirements of the Australian Training Guarantee Act, which required a specified amount (3%) of company turnover be spent in training, or it would be levied as a tax. Thus there was considerable incentive to spend the money on training rather than “give it to the taxation office”. This trend towards should be welcomed for

- uniformity of outcome: competencies assured,
- proof of outcome: competencies accredited, and,
- broadening of outcome from training to education: competencies for the competent.

This paper sets out to examine what types of training and education are currently *valued* in the Urban Transit industry based on the assumption that organizations encourage and seek what they believe to be valuable. Ideally a complete evaluation along these lines would use micro level data about workplaces noting numbers of employees by job classification, educational qualifications held and required, in house and external training opportunities. Instead employment and training data available from the Australian Bureau of Statistics is used. Although extensive, this data is at a macro level giving information about the Australian work force in general or at an industry level the broad category employees in the Transport and Storage industries. This has been supplemented by anecdotal evidence. Thus the analysis here of what is valued is provided to encourage debate rather than provide definitive answers.

The discussion of what is *needed* considers the means of promoting urban public transit and the training requirements to assist this. Plus, in the context of this conference, we might reasonably ask how education and training might empower women in the transport industry and help their progress. The final part of the paper looks particularly at management needs for the industry, and for the nation, considering women's potential role.

This is a timely review, as the industrial relations system in Australia is in the process of extensive changes, reducing the role of unions and allowing direct employee contracts in which the terms are negotiated directly with the employer. In this situation of substantial imbalance of negotiating power there is already evidence that key conditions previously won for hours of work, family leave access are likely to be wound back. These pressures are likely to significantly effect women in general and those in the transport industries where shift work is needed in particular. It is thus important that the value of appropriate training to the organizations as well as the individual is noted so that employers will continue to support both training and working hours which allow suitable times for training.

## EDUCATION AND TRAINING IN THE UT INDUSTRY

### EDUCATION OR TRAINING?

A wide range of programs cater for a wide variety of skills. The program duration may range from a few hours on the job to years at a University. The ABS in a "Survey of Training and Education Experience" (ABS, 1993) categorizes these activities broadly into Management and Professional Training, Technical and Para professional Training, Trade or Crafts, Clerical or Office Skills, Computing Skills, Health and Safety, plus, categorized together, as "Other", a range of special purpose training such as induction courses and English language courses. This last group includes transport and machinery operation.

It may seem rather pedantic to distinguish education and training and indeed even politically incorrect as a product of bygone days when Universities "educated" and Technical Colleges "trained". However if one accepts that technical colleges can educate and Universities can train definitions distinguishing the two sorts of activity can be of value.

Operationally we may see training as instruction in how to perform set tasks which may range from carrying out brain surgery to cleaning the bathroom. Job Training enables the trainee to perform the job either at all or better than before. However in many situations the trainer finds the trainee will be more motivated to achieve and thus more able to be trained if they have some idea of "why" they are performing tasks and indeed seeks to "draw" out of the student a response to the matter, to educate—from the Latin root "to draw out".

Most instruction is a mix of education and training along a continuum moving from concrete instruction in "how" to total exploration of "why". Instruction programs designed for the transport industry will always have an "applied" aspect since there is little call for theoretical study of transport without some practical application.

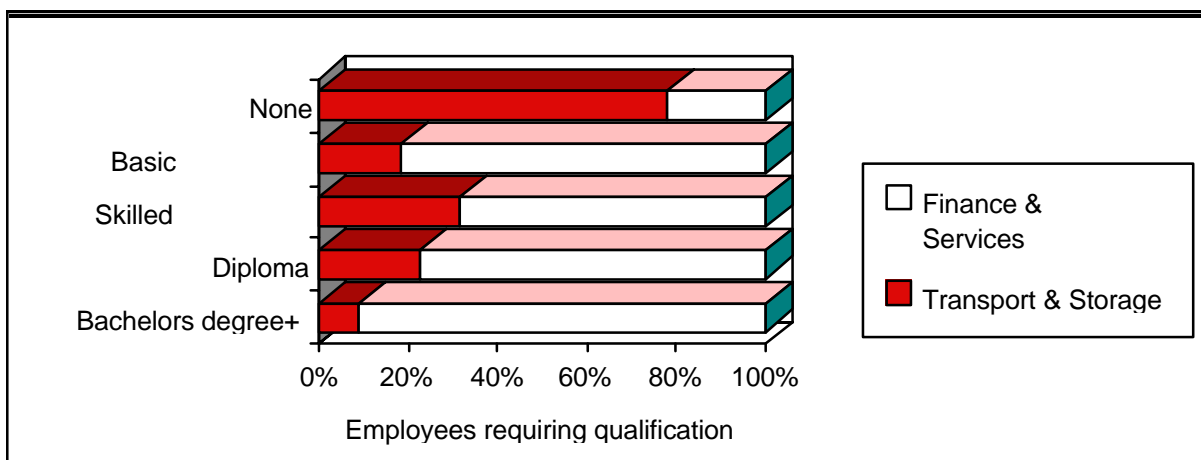
From an examination of the usual features of programs at the two ends of the instruction continuum (Table 1) it can be seen that the education program may open a different range of opportunities. These include gaining from knowledge of how people work elsewhere, making professional contacts with people outside the organization and an enhanced career path externally as well as internally.

**Table 1**  
Common Differences Between Education & Training

Feature	Education program	Training Programs
<b>Time frame</b>	months/years	hours/days/weeks
<b>Usual Site</b>	Away from workplace	At the work site
<b>Usual time</b>	Evenings or instead of work	During work hours
<b>Who usually pays</b>	the individual    the organizations	
<b>Who attends</b>	people from different organizations	people from within the organization
<b>Usual qualification</b>	externally recognized qualification	in house certification

Education programs have traditionally been more highly valued. But at the same time financial and time commitments may make education programs less accessible. Moreover the lack of either a requirement for or an appreciation of formal qualification in the area they work may discourage people from seeking qualifications.

**Figure 1**  
Percent Industry Employees Needing a Qualification for their Job



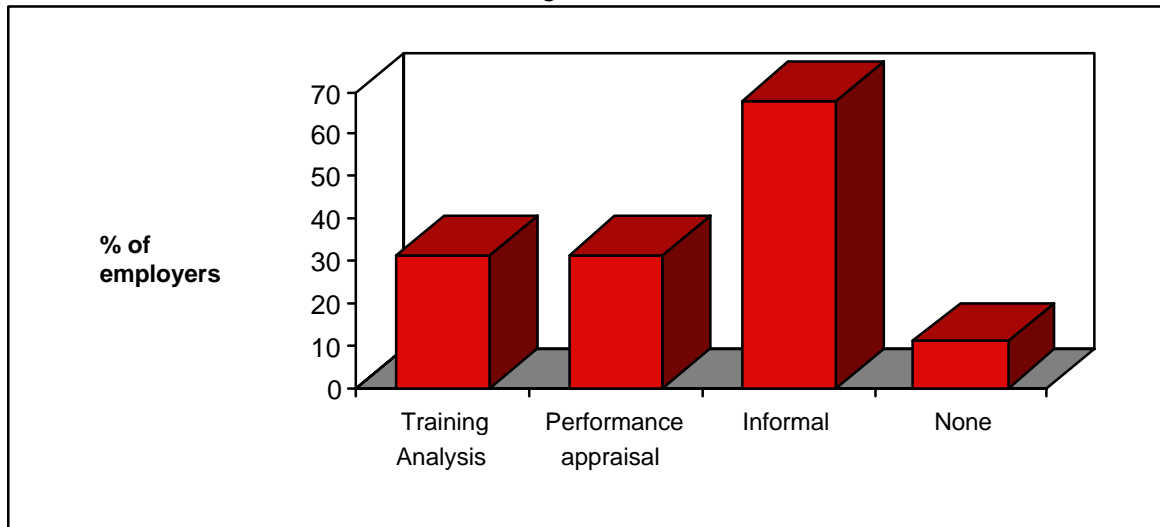
Source: ABS 1993 Training & Education Experience

Figure 1 compares qualifications required for people in the Transport and Storage industries with those in the Finance and Property Service industries. Only 8% in the former industry need a degree and an massive 64% need no formal qualification.

## TRAINING PROVIDED IN PRACTICE

According to the ABS Survey of Employer Training Practices (ABS, 1994) in the 12 months to February 1994 80% of employers and 76.2% of those in the, rather broad, category Transport and Storage Industries had increased their training provision.

**Figure 2**  
The Basis of Training Decisions in Australian Firms



Source: ABS 1994 Employer Training Practices

When questioned as to how these training needs were determined 32% of employers claimed they undertake proactive training analysis, 32% said they react to performance appraisals but 64% use informal methods to determine training needs, which, at least in some cases, may be another description for the more honest “none” at all cited by 11% (See Figure 2).

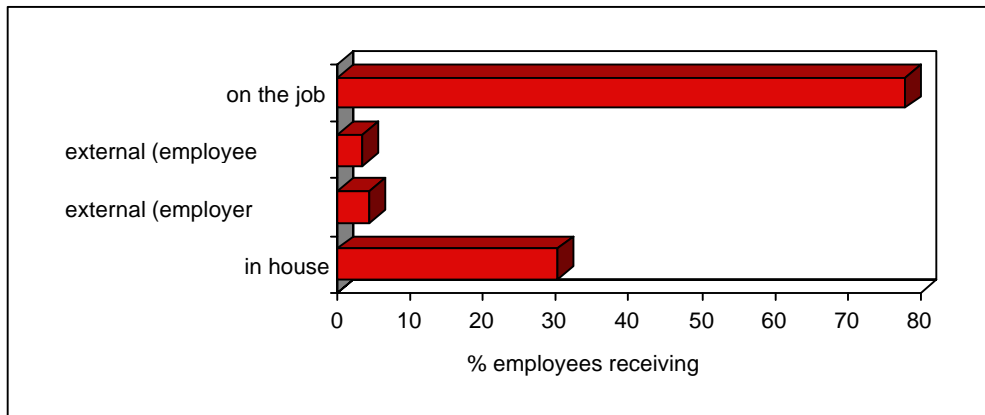
The percentages add to more than 100% since firms may use more than one method. However since “none” is a distinct category, 75% of firms determine at least some of their training needs in an ad hoc manner. Training decisions based on such methods will have a number of limitations:

### Short Term Rather Than Long Term

Training decisions are more likely to be in response to short terms problems rather than in preparation for long term opportunities. Immediate skills update is provided through in-house training. The break down of training courses shown in Figure 3 shows only 4.4% of employees in the Transport and Storage industry attended an external course supported by their employers in 1993

Yet as noted above the external courses are more likely to offer general education at Technical Colleges or University compared to specific skills training in-house: 45% of external courses were part of larger programs compared to only 27% of those in-house.

**Figure 3**  
 Training Undertaken by Employees in the Transport & Storage Industry



Source: ABS 1993 Training & Education Experience

Fear of the employees leaving is often given as an excuse for not supporting external courses but as Table 2 shows the number of employees who see their course as providing an opportunity of moving organizations is not very much higher for external courses. The table also shows the faith firms have in-house courses as employees believe they are more valuable for promotion.

**Table 2**  
 Employees View of Course Providing Opportunities for Promotion or Moving

<b>Stated advantage</b>	<b>In-house</b>	<b>External</b>
<b>Help move out of organization</b>	40%	46%
<b>Help obtain promotion</b>	17%	12%

Source: ABS 1993 Training & Education Experience

**Response to Requests - Hence Known Not Unknown**

Ad hoc planning will respond to staff requests for training rather than suggest training. This will have two effects:

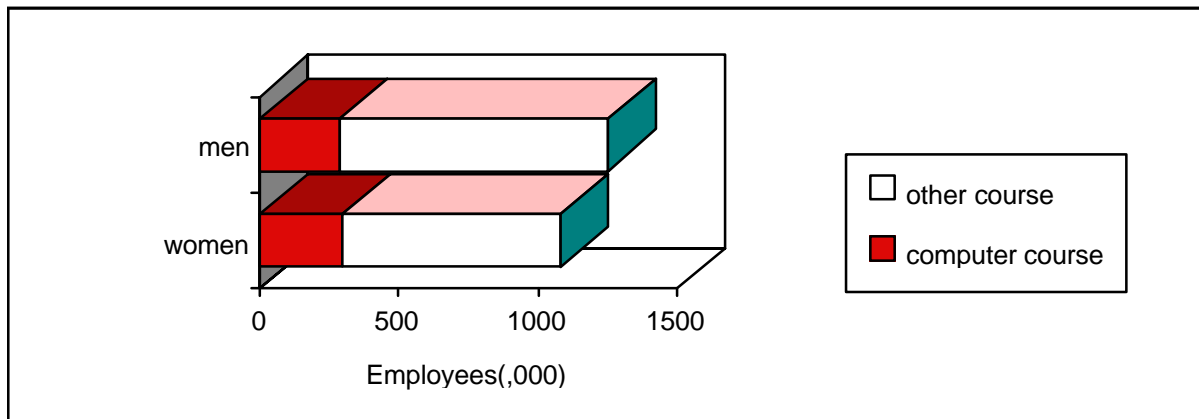
There will be a tendency to follow historical precedent and to emphasize upgrading of current skills, rather than learning new skills. People don't ask for what they are unaware exists. 75.9% of employees in transport and storage said their training needs were adequately met, but then 12.5% claimed they had no training needs.

Employees may be reluctant to suggest training needs because of general reticence especially if the culture of the origination is not supportive or because they are not sure they will be able to attend if training outside work hours is suggested. This is particular true for part-time employees especially women and the matter is explored further in section 4 of the paper.

### Technical Courses Favored

Technical rather than people skills will be favored, at least in part due to equipment suppliers offers of courses. In fact when asked why training had been increased “in response to technological change” was the most cited reason. Attending a computer course is a sufficiently common to have a category of its own in the ABS survey of Training and Educational Experience (ABS, 1993). Looking at people who are employees rather than self employed Figure 4 shows the number of men and women who took a computing courses compared to those who took other courses but not a computing course.

**Figure 4**  
Employees taking Computer Courses, Compared with Other Courses



Source: ABS 1993 Training & Education Experience

Some 0.6 million men and women (more than 10% of the Australian workforce) learned how to talk to a computer. Since only 2.3 million took courses at all it is extremely unlikely that anywhere near that number learned how to talk to people.

### WHAT SKILLS ARE NEEDED

#### What does the Business Produce?

In Urban Public Transit as in many other industries, there has been a culture which believes that the product is the important thing. The people, the staff who produce it or the customers who buy it are incidental. This results in conflict between those in charge of the production side: the engineers who oversee operation and the accountants who measure the cost of production and those involved in both staff relations and marketing the product.

The marketing department is often seen as unnecessary addition to the real business of producing goods or services. This attitude becomes a self fulfilling prophecy as the designated marketers fail to sell the “product”. Conversely the staff relations, or human resources department is seen as a necessary evil to shield management from the staff and keep “the union wolf from the door”.



All members of a firm should remember that the product has no value until it is sold. In public transit the firms produce vehicle kilometers then they sell a proportion of those as passenger kilometers. It must be the major aim of the firm to sell the product rather than to produce it. This aim is even more important in service industries such as urban transit because there is “no second chance of sale”. If the furniture store sells only half their supply of garden seats they can sell the rest later at reduced price, but if only half the seats on the 10 am bus to the city are filled those extra seats can't be sold later. Service industries therefore need to stress the importance of the marketing task and the people who carry it out.

Service design is a marketing function since fitting the service to the customer is much better business than trying to entice the customer to use an inappropriate service. Getting the product right in the urban transit context means supplying the type of service which the market wants at a price it is willing to pay: a reliable and friendly service of appropriate quality. This requires market research.

Transmitting awareness of the service to the customer or potential customer is equally important. This encompasses advertising but direct response is equally important. Telephone response, timetable design, on-line computer systems for retrieval of transport information include technical issues but must be customer and staff friendly.

Indeed since transit is dependent on repeat business all customer service must be efficient and genuinely friendly. Satisfied current passengers can have a powerful selling effect on others and they also form an important potential market for extra travel since these people are clearly willing to travel on the service. In urban transit the bulk of the staff are “on the front line” of service delivery.

## EDUCATION TO SERVE THESE NEEDS

The previous section would suggest that marketing, finding and serving the customer and human resource management, managing the work force to this end, should be a top priority for any Urban Transit organization. However the educational and training qualifications for such roles do not reflect this order.

The education for many of the operational and financial roles in public transport provision is formally regulated. Accountants need appropriate accountancy qualifications, and similar requirements govern most technical aspects of the control of the production side of the business, through the computer officers with degrees in computing to the mechanics with trade qualifications. The driving the vehicle itself is governed by licensing requirements and compulsory in-house training.

In contrast the marketing and human resources roles at all levels of firms have had a less formally defined set of educational expectations and have been much more dependent on in-house training. Whereas it would be very unusual to find a financial controller without formal accountancy qualifications, and indeed lack of such qualifications might be seen as impinging on the financial probity of the business, it is less unusual to find a marketing manager without a degree in marketing. Even Human Resources managers do not necessarily hold qualifications in appropriate disciplines.

These people may be competent but they are disadvantaged as their competence must be judged by knowledge of the person themselves and they may not be esteemed as highly as other people in the organization with formal qualifications. Moreover, especially if their career track has been within the one organization their knowledge of alternatives to the systems in place may be limited. In the worst case scenario the ignorant may be “blissfully” unaware of their ignorance.

## **Women's Travel Issues**

Proceedings from the Second National Conference

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Experience in Britain has shown that on average good market research should guarantee resource saving of about 15% (Kilsby, 1995). Conversely surveys designed by well meaning amateurs can not only waste the time and money spent on them but cost potentially much more in lost revenue and lost opportunities.

At the customer interface training for those who provide service to travellers is not nearly so regulated as training for the mechanics who service the vehicles. It is only relatively recently that bus driver authority training encompassing service to passengers has become widespread in Australia. To all technical aspects of the job from selling tickets to driving a bus is now added customer relations encompassing: standards of politeness, personal hygiene, tidiness and appropriate dress, local area knowledge, such as where to find hospitals, rail stations and shops. As yet these types of "authority to serve customers" for drivers are not widely matched by a "counter clerk authority" or a "telephonist authority".

A different type of training is needed in dealing with advertising and incentive marketing and yet another set of skills might be required to train the trainer so that the very large number of people who make up the public face of public transport learn how to market their product. Decisions about how they should be educated and trained should be the province of a Human Resource management team, who are themselves well equipped to plan training needs. Such a plan can provide the forward thinking seldom encompassed by ad hoc training decisions.

Training Needs Analysis and Human Resource Development are being adopted in one industry after another as the critical nature of human resources becomes progressively more obvious. These trends are complemented by parallel responses to change, where managing diversity and developing and implementing a human resource management strategy become competitive tools.

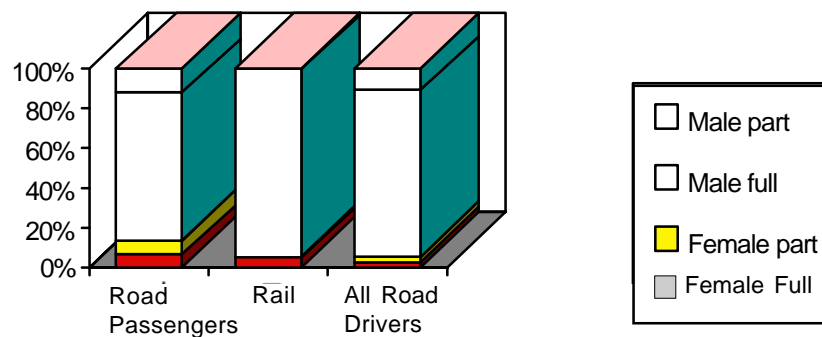
In Australia these trends have been sustained until recently by a supportive legal framework, but since a recent change in political direction at both state and national levels, this supportive structure is being substantially dismantled, and many of the developments in workplace conditions and training support have now been transferred to the judgement of employers. Statistical data for assessing the effects of such changes, if any, will not be available until 1997, so it will not be possible in the present paper to assess the degree to which training and development in the transport industries have been dependent on legal structures and requirements.

### **WHAT DOES THIS MEAN FOR WOMEN ?**

#### **WHERE ARE WOMEN IN THE ORGANIZATION**

In Australia, the transport industry as a whole is a male oriented industry, although specialized functions within it may have significant female participation. A more appropriate way of characterizing the gender balance is through the actual jobs undertaken (Deery & Plowman, 1991). Clerical, service and professional jobs are the categories most dominated by women, while operative and managerial jobs are most dominated by men. As Australian enterprises in transport thin out their overhead, this male predominance is likely to be maintained or increased.

**Figure 5**  
Participation in the Road & Rail Transport Industry



Source: ABS 1994 Women in Australia

In 1994 women made up 14 % of the employed persons in the Road Passenger Transport Industry and 6% in the Rail Industry (ABS, 1994). However of those in Road passenger transport half worked part-time and one sixth of the rail workers were part-time. Figure 5 contrasts male and female participation for the two industries and the specific job category “All road and rail drivers”. So not only are there few women but their pattern of working hours is quite different to that of their male colleagues. For example, as can be seen from the figure, the majority of male vehicle drivers are have full time positions whereas the majority of women drivers are part-time.

Experience in larger public transit organizations tells us that women are concentrated in administrative roles and where present in management predominantly in human resource management or marketing roles. If they are at the customer interface it is in service rather than operation. The women in finance and operation control roles or involved in driving or maintaining the vehicles are a minority. There are two sets of implications:

Women desiring a position in the operational and financial side of the business will be excluded unless they are able to obtain qualifications. Lack of time, family responsibilities may make commitment to longer term training difficult but equally likely such training will not be available to part-time workers. As noted above a large proportion of training is on the job during working hours. There is often a reluctance allow a part time worker to spend there limited hours on the job in training. Firms are also reluctant to spend money on training part-time workers but these are the very people whose limited income precludes them paying education expenses. A common, and seemingly reasonable, strategy widely used in government organizations is to pay for outside courses upon proof of success but women may not be able to pay the “up front” fee.

Conversely women advancing in the marketing, human resource management areas and customer service areas may not require formal qualifications. They may even find acquisition of formal qualifications resented by senior women and men in the area either because they have no qualifications and thus do not

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value them and they see time spent in study detracting from attention to work. But lack of formal qualifications may impact on overall advancement within the firm.

Women may also be more reluctant to ask for training especially if that type of training is not traditionally offered but it is a mistake to believe that women have either less interest in career advancement in general or in training to aid that advancement. A study of workers priorities in the context of union membership (Benson & Griffin, 1992) found that women and men share the same top workplace priorities although women also tend to place higher values on part-time work, health and safety, social issues and child care.

Whilst women make up a small percentage of the workforce in transport, programs tailored specifically for them are rare. This is unfortunate for whilst gender distinctions may not at first seem relevant to much operational training in practice different approaches to learning, or merely the fear of "standing out" as the one woman among a group of trainees can sometimes discourage women.

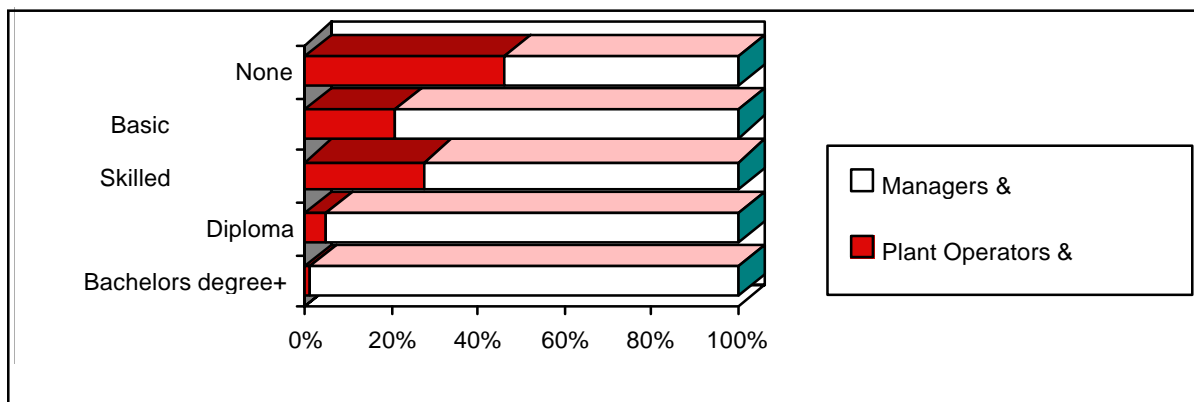
However it is not operational and technical skills that will be vital for the future success of Urban Public Transit the emphasis will need to move to "people rather than product". Some women in the management structure of Urban Public Transit are seeking to hone these skills through management education.

### MANAGEMENT EDUCATION FOR WOMEN

People already in management positions or hoping to move into management positions from all areas are increasingly pursuing management education either in a general management diplomas and degrees such as the Master of Business Administration (MBA) or industry specific certificates and degrees such as those in Transport Management. These provide a theoretical basis through practical case studies Human Resource Management and Marketing as well as in Accounting, Economics, Law and Statistics.

This type of education can be particularly valuable in the Transport Industry where people moving up through the organization are less likely to have needed qualifications than those from some other areas. 64 % of people in the Transport and Storage industry need no formal qualification compared with only 10% of those in the Finance and Property Service industry (see Figure 1). Yet as Figure 6 shows while few plant operators and drivers need formal qualifications 40% of managers and administrators require a degree or diploma.

**Figure 6**  
Employee Classifications Needing a Qualification for their Job



Source: ABS 1993 Training & Education Experience

For women, management education can provide a special opportunity for formal recognition of management skills. The Certificate of Transport Management (Bus & Coach) is a general management qualification required under the state of New South Wales legislation for managers of bus or coach companies. This legislation is based on the premise that as much of the bus transit service is provided by private operators with area wide franchisees there is considerable inconvenience to the public if a transit company fails. The intention is thus to promote industry stability by seeing that the businesses are well managed. General management training is combined with the specific requirements for complying with industry regulations and practical issues such as bus maintenance. Women from large bus companies to small country two bus services have taken the course and have performed on average better than their male colleagues.

However these women, just like the women enrolled in more mainstream management degrees, still study “in a mans world” There are easily foreseen difficulties such as being the sole “lady” addressed in “lady and gentlemen” and problems with timing of classes geared to male rather than female lifestyles—5.30 to 9.30 P.M. conflicts with children’s bath time/dinner time. But more significantly management education is still carried out in a culture of management theory and practice which is deeply and powerfully masculine (Sinclair 1994).

Over the last ten years requirements for gender sensitivity replaced “he” with “they “ and we “personed” rather than “manned” the barricades. However modern analysis of this trend suggests that “gender blindness” is not “gender inclusiveness”. Thinking has still been shaped by a male perspective and values are predominantly majority male based. Women’s experience is not registered or recognized as valid.

Some prescriptions to the teacher, drawn from Sinclair, 1995, for avoiding this sound fine in theory but provide a interesting challenge in practice. How do you make appropriate references to the achievements of women in all areas—what if all the “gurus” in the field are men? Can do you include readings by women—what if they don’t write on the subject in question in transport?

In these cases history may defeat us but in other cases the opportunity exists to make history:

- Gender issues should be treated as part of the mainstream intellectual content of the discipline women are not a minority group.
- The range of teaching and learning opportunities offered and assessment methods used should cater for a diversity of learning styles making them equally accessible to male and female. This is not easy especially where some women may have adapted to male learning patterns and be just a vociferous in their defence as their male classmates.
- Women should not be allowed to be silenced but reticence should be accommodated. Especially if marks are won for contribution an opportunity to contribute must be provided.
- Women may prefer cooperative learning in group situations but must not end up within the group in a stereotypical secretarial role.

Such changes would not only improve management education for women they would ensure better overall management education. The recent Australian Industry Task Force on Leadership and Management skills (Industry Task Force, 1995) identified several key challenges to improve management performance. One of these was capitalising on diversity. The task force was more interested in “bottom line” issues than it matters of “equity”. It arguments for the inclusion of women and in particular the skills they

bring to management were for the economic good of the country and equally they will be for the good of the Urban Public Transit Industry.

### CONCLUSIONS

This paper has suggested that currently Australian Industry in general but the Urban Public Transport Industry in particular has planned training in an ad hoc manner. This has resulted in a focus on short term training rather than long term education, on "technical" rather than "people" skills, on response to short term problems and provision for those who ask rather than those in need. In addition the areas of the organization where formal qualifications are required are the technical areas. This is how training is "valued".

However the provision of well maintained vehicles running in a cost efficient manner will not ensure a viable public transport industry. The service is of no value unless there are passengers using it. Thus marketing and customer service roles are paramount. Training and education should reflect their importance. This is where education is "needed".

This has special implications for women in view of their roles in marketing, human resource management and at the customer interface. Education and training programs must be designed to accommodate their needs in an appropriate manner. Even where training programs for functions such as marketing are in place already, as in management education, their masculine viewpoint should be challenged and amended. Women should not be expected to learn to "be one of the boys".

This paper reports on the situation in Australia but the case for a review of training valued and needed is probably applicable elsewhere. Transit industry literature, especially magazine and newsletters from the USA and Europe seem to have many more articles about operational and engineering issues than about customer service. Equally the workforce in the transport industry in general and the transit industry in particular is predominantly male in most countries of the world. In those circumstances it is "natural" that training and education will be suited to male needs either by intention or default. However this does not mean this is the best solution.

Changes are vital if we are to make best uses of the resources in the industry and build the sort of public transit organizations suited to the new century.

### ACKNOWLEDGMENTS:

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REFERENCES

Australian Bureau of Statistics (1994 a) *Employer Training Practices in Australia.*, Report 6356.0

Australian Bureau of Statistics (1994 b) *Women in Australia.*, Report 4113.0

Australian Bureau of Statistics (1993) *Training and Educational Experience*, Report 6278.0

Benson, J., & Griffin, G. (1992). "Gender differences in union attitudes, participation and priorities." In B. Dabscheck, G. Griffin, & J. Teicher (Eds.), *Contemporary Australian Industrial Relations*, (pp. 18-210). Melbourne: Longman Cheshire.

Deery, S. J., & Plowman, D. H. (1991). *Australian Industrial Relations*. (3rd ed.). Sydney: McGraw Hill.

Industry Task Force on Leadership and Management Skills (1995) *Enterprising Nation: Renewing Australia's Managers to Meet the Challenges of the Asian Pacific Century*.

Sinclair, A. (1995) *Gender in the Management Curriculum*, the Melbourne Business School, University of Melbourne:.

Sinclair, A. (1994) *Trials at the Top: Men, Women and the Australian Executive Culture*. Melbourne: the Australia Centre University of Melbourne.