

Sydney Night Time Economy: Cost Benefit Analysis

A Report for the City of Sydney Council



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Long View Partners and
Philip Hadfield Consulting



Sydney Night Time Economy: A Cost Benefit Analysis

For the City of Sydney Council

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04 November 2011

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Document Information

Project Reference Number	PN02311R
File Name	PN02311R_NTE_Report
Title	Sydney Night Time Economy Report: CBA
Version number	Final 14b (TB)
Last update	25/10/2011 (Reformat contents table 02/11/11)
Name of Authors	Terry Bevan/ Alistair Turnham/Andrew License
Name of Reviewer	Michael Lester
Document Status	Confidential
Review Status	Complete
Approval Status	Final for public comment

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1 Summary Findings

1.2 Context

Reading any study findings about a large, well known and highly regarded international city requires that we clarify certain key aspects of the study from the outset and that those key guidelines should be retained in perspective throughout. Therefore before reading Summary Findings we have provided the introductory note below. It is integral to those findings. We emphasise that

- This is a highly detailed examination of the key economic facets of what has become known as the Night Time Economy (NTE). This definition was not established by economists but by academics that have engaged with the NTE from the perspectives of perceived social impacts.
- In considering all perspectives this study examines the NTE as an economic organism.
- The geographic focus is the 'local government authority' (LGA) that is administered by the City Council of Sydney, which includes the CBD or 'Manhattan of Sydney' but also highly urbanised neighbourhoods and districts such as Kings Cross, Surrey Hills and Paddington as well as the Rocks. The latter, although administered by the Sydney Harbour Foreshore Authority, is included in our core geography for reasons of logical continuity. (It is mapped at 5.1.2 below)
- Geographic comparisons are made with the larger 'Statistical Sydney' or 'Metropolitan Sydney'¹ according to the Australian Bureau of Statistics' definition and to New South Wales.
- Unsurprisingly the authors have found some difficulties in measuring what has not been measured or collated under one heading before but as experts in issues of NTE measurement we offer this study as the most reasonable and recent picture of the Sydney NTE and how it relates to the wider economy both as a centre of focus in the LGA and across New South Wales.
- Improvements in measurements can certainly, and should be, made. There is considerable scope for this and we focus on possible improvements in Section 11 of the report – Technical Recommendations. This improvement will depend upon a proactive development of a relevant research programme.
- As a sense check on these findings we have carried out a number of secondary comparisons. One of the most interesting is contained in Section 7.2.3 where we briefly compare Sydney with Westminster and the City of London². The differences are interesting and proportionate but in essence the characteristics and potential of the Sydney NTE is what should concern us.
- In Section 8.4 below we introduce some perspectives that flow from a careful comparison of the modes and purposes of transport usage³ in the LGA for the averaged five years to 2005/6 and the five years to 2009/10. We cannot simply align this movement and purpose data with the economic outputs because the movement statistics have no precise economic crossover.

However they give a valid and complementary snapshot and simply on daily comparative population movement statistics alone allow us to understand that the NTE economy does not overstretch the public transport system since the overall movements from 6 p.m. to 6 a.m. amount to no more than 19% of all movement in the weekend days of the latest time period (See Table 21). Less than 50% of these journeys are for social purposes.

It is also clear from these statistics that we are right to leave retail out of current NTE economic measurement because shopping is such a tiny cited component of LGA movements after 6 p.m.

¹ 'Statistical Sydney' includes local populations that stretch 100k to the south and north of the city. It is often called Greater or Metropolitan Sydney. It includes all other local authorities and other adjacent administrations

² Comparison based upon our own measurement of all UK NTEs for the 2009 timeline

³ Base statistics supplied by the NSW Bureau of Transport Statistics (BTS) to our specification

1.3 Note on the Methodology

This economic analysis of the Sydney Night Time Economy (NTE) is the first of its kind.

No previous material study of an NTE within a large global city economy has attempted to identify and measure the detailed activities of that part of an economy which is 'after dark' and then examine and compare the benefits of that economy with the related costs that interact and surround its activities.

It is important to affirm that this is not a traditional 'cost-benefit analysis' (CBA). Firstly, this is because a CBA traditionally evaluates the costs and benefits (in economic terms) of *potential* economic action for new plans, policy directions or investments, and what might happen if course of action A wasn't taken, or indeed a different action was put into process.

Our study is more a retrospective 'auditing': a form of balance sheet, rather than costing potentialities.

Secondly, the 'costs' examined are *not* the economic costs of delivering a given unit of economic output. Those costs would identify secondary benefits of employment and revenue

The NTE existed before humankind settled into a pattern of tradable goods and services measured by monetary currencies of exchange. All components of such exchanges bring benefit to both sides of the equation. In the modern notion of the NTE this economic cost aspect of the equation has become entangled with a related social context. Thus this work is partly driven by the concern of public services to effectively manage perceived secondary effects of the economic activity.

Namely that the NTE may bring additional cost to the 'community' and that public services will need to be deployed to reduce, for example, anti-social behaviour or to address the consequences of self and secondary harm within some settings of the NTE.

Thus the definitions of cost in this study cross lines, which make it far more difficult to assess economic impact and attendant cost and benefit. We have sought to sustain clarity of measurement and in the main we believe that we have succeeded and that this analysis delivers a most useful future reference for NTE strategy development and to revisit and evaluate change as new policy measures are implemented.

If the lines become blurred the reader will need to seek only one or two explanations:

1. We may have attempted to push this association of economic cost with NTE social 'cost' too far and this will result in our treating something that might be seen as either sustainable benefit or justifiable cost without necessary clarity.
2. Explicit data on NTE economic activity is not collected s a matter of course by any data provider. In responsibly interrogating available data we have had to establish rules that allow us to see as far as possible into the data without the possibility to change primary data collection processes.

We have been transparent about our approach and we believe that this takes the City of Sydney substantially towards understanding the dimensions, drivers and potential for economic change in the NTE that is the necessary platform for approaching strategic development.

Finally, we wish to underline that our client understood the issues of data quality drawn to its attention by us from the inception of this project and whilst we believe that the findings below represent the most important outcomes of the study we have also completed a 'Data Framework'⁴ for the City of Sydney setting out the sources of data from which we have developed our main analysis. We believe this will show its value when considering how to improve the measurement of change in the NTE in the future.

This important aspect of the economic wellbeing and reputation of Sydney is too important for the city not to continue to seek improved information flow.

⁴ Data Framework – Detailed workbook on all data aspects of NTE measurement and potential measurement

1.4 Summary Findings

1.4.1 Benefits

1. The 'core'⁵ Sydney LGA NTE generated an estimated sales turnover in 2009 of 2,702 million dollars⁶. This is 3.2% of the total sales turnover of the LGA economy in that time frame. When comparing this figure with the larger Statistical Sydney⁷ and the State of New South Wales we see that the core NTE is larger outside the LGA but in all geographies it is a key economic driver⁸.

The quoted figure represents only the 'core' NTE activities as agreed with the client and does not, for example, include any 'non-core' revenue relating to retail or accommodation or transport.

2. The Sydney LGA core NTE provided 27,115 jobs to the local economy. This is 7% of all jobs in the LGA and when non-core NTE employment is added this figure rises to 28.4% of all jobs.⁹
3. The average revenue per employee generated by employees working in the NTE was \$99,700. This compares unfavourably with the all LGA Sydney economy average of \$197,000¹⁰. However, it is consistent with findings in other parts of the world and indicates that NTE businesses are less productive (in economic terms) per employee. This average will hide a wide range of performance levels and it is partly addressed in the lower direct costs that the NTE businesses incur to deliver their services.
4. Compared to 2006/07, employment in 2009/10 remained static, although there was significant movement towards food and away from drink only establishments.
5. The most important core activity in the NTE by employment and value in both 2006 and 2009 was the food-led trade (including cafes and takeaway food as well as sit down restaurants). It is by far the largest of the core activities with just over 50% of all employment. This finding is similar to the statistics that we find in major NTE centres in the UK.

If we examine the spread of after dark activities in Sydney it would be reasonable to surmise that people spend more time and money dining more than any other NTE activity. This statistic counterbalances any perceptions of the NTE economy as drink dominated in economic terms.

6. Takeaway food, gambling and pubs / bars (drink-led) follow restaurants as key activities and in that order.
7. Between 2006 and 2009 the number of drink-led establishments declined from 311 to 287 whilst the number of restaurants increased from 1,943 to 2,141.
8. Businesses engaged in core NTE activities generated c¹¹ \$200 million in direct and indirect taxation to the State and Federal Governments and \$26 million in estimated property taxes to the City of Sydney Council.
9. Employees engaged by core NTE businesses delivered around \$227 million in tax revenues through personal taxation on wages. These estimates ignore payments such as those for services of power and water or paid through taxation on fuel and alcohol.

⁵ For the purposes of this study we divide the NTE into 'core' activities (e.g. restaurants, bars, clubs, theatres) and 'non-core' (e.g. accommodation, transport that serve the core NTE).

⁶ Figure based upon calculation of sales per sector from ABS, applied to ABS 2009 NTE firms.

⁷ Broad definition of Statistical Sydney is derived from current ABS definition

⁸ Statistics taken by detailed 3 and 4 digit ANZIC analysis of ABS figures based upon our agreed definition of core NTE business.

⁹ Statistics taken from FES and ABS supplied information.

¹⁰ Based on broad sector ABS data for 2009

¹¹ Based upon proportional estimates of Corporate and Labour Taxation for 2009 from ATO Financial Accounts- Appendix 17.

10. The employment and services purchased by NTE companies result in secondary impacts upon the broader economy. Purchased services give rise to 'pipeline' employment in the service-supplying companies and the wages paid to employees are clearly pumped back into the wider economy.

Often the impact of such transactions can be estimated by the use of specific views of 'multiplier' or 'accelerator' impact. However, in this study we have sought to provide a first definition of the NTE as a sub-economy and more work would be required to verify and apply relevant phenomena to identify an 'NTE multiplier'.¹²

Nevertheless, we can say with clarity, that the NTE generates employment in related 'non-core' activities and that this study suggests that this will be a notable portion of a further 82,000 jobs within a total of all employment within the LGA 387,029.¹³

Looking at the 2009 distribution of NTE activities, as evidenced in this study, it is evident that policy to further support and encourage the growth of creative businesses together with sports and recreation activities should underpin a wider vision for the NTE in order to capture the interest and participation of a wider community, both local and international.

1.4.2 Costs

11. Our estimate of the principal costs of activities related to supporting, managing and reducing the negative social externalities of the NTE in Sydney in 2009 is c\$125 million¹⁴

Broadly this is made up of the following:

- | | |
|-------------------------------|----------------|
| • Policing costs: | \$24.8 million |
| • Health costs: | \$4 million |
| • Transport costs: | \$64.8 million |
| • Other public service costs: | \$31 million |

12. We do not regard this estimate as fully explored but the quantum is on a realistic scale. The limitations of the data available for consideration make a more forensic understanding unlikely without applying resources to undertake bespoke research that will address some of the issues cited in Section 11 of this report.

13. We believe the transport and other public service costs are close to 'true' figures, but the data for policing and health must be considered imprecise estimates for the following reasons:

- Our *policing* costs are based on a proportion of staff wages attributed as closely as possible to the time they spend policing and administrating the NTE. They do *not* include a relative share of NSW Police's capital expenditure (e.g. buildings, vehicles) that are paid off over the longer term. Our figure does include an NTE attribution for annual police operating costs.
- *Health* costs, like policing expenditure on the NTE, are primarily based around staff time, (but only in A&E - although the figures include some costs for medical materials within the department. The health total does *not* include allowance for capital expenditure to finance and build the hospitals that take in patients from Sydney LGA's NTE. It does not include the support costs of operating the A&E within hospitals, or the ongoing costs of treating patients once they have been moved from A&E into ICU or general wards and subsequent surgery or any GP or alcohol intervention treatments.

¹² It is worth noting that other studies that have sought to address this have been very weak, e.g. New York study from 2004 and it would have been preferable to focus on the 'core' NTE rather than to attribute secondary benefits.

¹³ Based upon an analysis of ABS 2009 job statistics compared to FES statistics for 2006.

¹⁴ Subject to confirmation of estimated Local Council costs as above

- However more precise identification of these costs is a key subject for those who wish to reduce the impact and causes of anti social behaviour with which the development of the NTE economy should be fully in accord

Whether some of these costs should be included in an NTE balance sheet is a subject which requires a different context than this report.

14. Despite these qualifications we do regard the overall figure as representing the closest we can get to the direct costs without conducting new bespoke studies into each area of activity, and even then, we would often need the 'owners' of the data to collect it more routinely and accurately. This is emphasised in the technical recommendations.

15. We note that the negative externalities, while 'costs', do support employment (e.g. police officers, doctors, nurses). Therefore, a key question is whether this employment could be reduced (saving public expenditure) or redirected to support other community needs. Or, if the city did not have an NTE, whether these resources would still be needed but emerge in different settings or in different ways and time frames, because the basic human impulses that necessitate management would introduce the need for support and regulation elsewhere.

1.5 Other Key Findings

1.5.1 Micro Firms

This research study uncovered a large number of firms¹⁵ which trade on a sole trader basis and in many cases are too small to warrant GST registration. These businesses were not picked up by the FES survey and this is not surprising since many operate in a 'virtual' environment or from a home office.

Within the definition of the NTE we have set out, this amounts to 1,231 firms¹⁶ - a 44% addition to the core NTE firm base and it provides skills and experience opportunities to the future NTE.

Both ABS and D&B hold records on these sole trader entities which are not part of the statistics on which data is usually drawn to measure economic activity. We have described them as 'non-employing firms' (NEFs). They are not included in our reported figures and should not be confused with sole traders who are GST registered, nor with shell or dormant companies.

They include:

- 324 Creative and Performing Arts
- 115 Sports and Recreation
- 461 Cafes and Restaurants

Whilst in 2009 the direct economic impact of these firms is small, most international research into firm behaviour and development suggests¹⁷ that this is the category from which net future new employment comes. We have included a new section of the reporting aspect of this study in Section 8 below to cover these entities, which provide additional enterprise and enterprise potential to the NTE.

We draw the attention of all stakeholders to the difficulties of data collection about most aspects of the NTE. We have addressed the current position in two ways. Firstly we have studied the reported behaviour of the performance of all NTE firms as derived from three highly reputable sources¹⁸. This has given us a clear sense of the proportionality of the correctness of what we report here.

¹⁵ ABS and D & B data

¹⁶ ABS and D & B correlated data.

¹⁷ Beginning with David Birch at MIT in 1979 – The Job Generation Process - but reaffirmed by many research studies since Birch

¹⁸ City of Sydney FES; D & B; ABS

Equally with cost data we have met and discussed the issues of data collection with representatives of all key parties. In the study we have used and – where sensible – updated – information supplied to us by the most reputable and recognised sources that are available.

Our Key Stage One deliverable in this study was a Data Framework workbook. This document clearly sets out the range of contacts and organisations that are currently available for measuring the various aspects of the NTE and describes data shortcomings and how they should be addressed.

This subject is covered in greater detail in Section 11 Technical Recommendations.

1.5.2 People Movement around the LGA

Finally we draw the attention of the reader to Section 8.4 in which we comment on the messages from the transport study on the mode and purposes of travel of people who move around and into and out of Sydney LGA. We commissioned this research from the NSW Bureau of Transport Statistics (BTS) to give a sound view of movement such that we gain an appreciation of the broad differences in movement and the reasons for movement between the two 12 hour periods and within the NTE over four 3 hourly time bands so that the change in volume of activity can be understood and to begin to gain an appreciation of where the pressures are on transport movement at different hours and why people are moving around after 6 pm. The research commission required BTS to show a comparison between average Weekend day and Weekday movement

Key additional findings include

- There is very little relative movement for shopping purposes after 6 p.m. Based upon our commissioned statistics at no point does shopping after 6 p.m. constitute the reason for more than 5% of all people making journeys. Well over 90% of retail journeys are in daytime hours.
- Private transport plays the biggest role in moving people around after 6 pm and the sheer weight of all the traffic would not place the public transport system under great strain, which is not the same thing as deciding that it should be increased. The overall volume of transport movement into and around Sydney LGA after 6 p.m. is never more than 19% of all 24-hour movements. This includes a considerable amount of movement on foot in the LGA and only 50% of this movement is social activity relayed.
- From the statistics the LGA should be relatively quiet after 12 pm. Only 2 to 3% of all trips made into the city and around the city occur after 12 midnight.
- There are 50% more LGA domiciled or overnight people moving around the city after 6 p.m. as there are people coming in from outside the LGA after 6 pm.

1.6 Conclusions

Overall the benefits of the NTE to Sydney substantially exceed the negative externalities, (based on the available data and resources attributed to this study).

However, this does not mean that a status quo should be maintained. In fact we do not believe that this is an appropriate way of assessing or measuring our findings.

Rather this first impact measurement of the city's NTE allows Sydney to benchmark its current position and then to work to both reduce its negative externalities around crime, health, environmental degradation, while increasing the identified benefits of wealth creation, employment and city reputation

We would suggest that these two agendas should not be confused and that the most important role the City Council has to undertake or catalyse is that of drawing apart and progressing both agendas

Clearly there will be interaction, some misunderstanding and the need for cooperation but the economic development of the NTE needs to have its own programme and priorities and the regulation and intervention to achieve social improvement should be in the hands of different individuals who may freely

challenge practises which are negative for every person engaged in the NTE and bring no benefit to the commercial interests of the businesses or the reputation of the City.

1.7 Recommendations

In Section 10 below we begin our full recommendations with an opinion. We approach the recommendations in that way more because of the importance of what we cannot yet measure or see rather than based upon what we have been able to measure.

We have achieved the first step task of giving quantitative shape to the benefits and costs of the Sydney LGA NTE and we have set them in perspective. This sets the framework for change.

Also we hope that it helps to change the nature of the debate such that it is entirely focussed on improvement and the evaluation of whether that improvement is taking place.

For this to be the case our key recommendations relate to subject fields where we believe there is opportunity and greater need for knowledge so that Sydney can confidently commit to new development initiatives.

- On the face of it not many inhabitants of Greater Sydney are attracted into the LGA after 6 p.m. We suggest that Sydney needs to measure the reality of that, and what drives it by quantified survey research. This may well involve research based comparison with one or two other cities at the very least to throw light on the complexities of motivation and the simplicity of working solutions. A key question is how do you change the LGA from a place where people stay on after work to a place where they come in from the inner and outer suburbs?
- Sydney is famous around the world for its iconic Opera House but is the strength of the creative cluster built as effectively as it might be? How does Sydney compare as a cultural evening experience with other places in the post 6 p.m. economy?
- There is very limited retail activity in many parts of Sydney after 6 p.m. during weekdays or at weekends. There are many examples of places that have expanded their post 6 p.m. experience in which retail plays a critical part. This does not need to be a simple extension of shopping hours but the piloting of different sorts of retail experience.
- A critical aspect of successful NTE experiences is the way that light and space is used with attractions to build places where people will seek to spend leisure time hours. Although the City Council lights the city to the highest technical standards we are not convinced that this is part of a fully integrated strategy that focuses on the use and development of city spaces after 6 p.m.

In our statistical comparison we measure the Sydney LGA against the largest NTE in the UK. Westminster benefits from many facets of post 6 p.m. experience. In another part of this study we have suggested that not much is to be learned from such comparisons.

What we do learn is that Sydney has a night time economy that approaches that of Westminster in size and is similar in broad structure. It was not a central part of this study to compare the drivers of the two economies. It would be helpful to review consumer spend in LGA NTE Sydney.

Our final recommendation would be a continuous consumer survey which gives the city updated comparative information on what people are spending; what they are spending it on and why they spend these sums in Sydney after dark together with intelligence from attitudinal research questions that help Sydney better understand motivation and perspectives on future development.

1.8 Technical recommendations

Our full Technical Recommendations are set out in Section 11 below however we note the following points as key

- There is not enough clear information contained in the three primary data sources, as we would wish, to enable to the City to accurately track change in NTE performance in the future.
- We believe that the solution to this lies in further work to understand what a fully transparent data set such as the D & B dataset can offer or a regular business survey which measures the change in performance across the key NTE core activity types.

The level of detail required cannot be accessed from FES or ABS statistics

- Consideration should be given to commissioning the NSW Bureau of Transport Statistics to provide more explicit information to identify the purpose of transport trips taken and the nature of the respondent who may be a local inhabitant, worker or tourist of one category or another.
- The role of tourism and the nature of successful tourism based evening events could play a crucial part in improving strategic information to develop the NTE.
- The non-employment group of businesses that we have identified need closer examination including contact to verify the origins and the skill sets of the people who start these businesses.
- There should be detailed review of the steps that could be taken to improve the transparency and nature of both policing and health based costs. We found in stakeholder contacts that there is some feeling that the case for change is beyond the need for further affirmation but in reality the underlying costs are still not well documented or at least they are not easily furnished.

2 Study Background

This cost-benefit analysis (CBA) has been undertaken by UK economic measurement specialists TBR and night-time economy planners MAKE Associates in partnership with Sydney based economist Michael Lester of Long View Partners.

It delivers the first overview of the relative economic scale of Sydney's 'night-time economy' (NTE)¹⁹ and has provides initial examination of its dynamics based upon comparing data over 2006/07 to 2009/10.

It was commissioned by the Lord Mayor of Sydney / City of Sydney Council as part of the 'Open Sydney' process. It will be used to inform the Council, stakeholders and the wider community in their collective development of a long-term vision for the city after dark. This study sits alongside parallel commissioned work that has examined other aspects of Sydney 'after dark'.

The work in this study is based on similar research which TBR and MAKE have already undertaken to measure the UK NTE. This work now includes our commercially available NightMix Index (NMI)²⁰ product, which ranks the NTE of all 409 UK local government areas by change in employment, firm numbers, turnover and activity. Alistair Turnham and Terry Bevan (of MAKE and TBR respectively) also have considerable experience in commissioned measurement of the NTEs of individual UK town and city centres and entertainment districts. They are both members of the Home Office funded UK NTE key performance indicator (KPI) development group, which is managed by the Association of Town Centre Management (ATCM).

The study team also bring a much wider expertise in the measurement of the costs, benefits, externalities, growth, and change in a range of industries, sectors and firm types on behalf of both private and public sector organisations to this important niche market.

It is important to note at the beginning of this report that the NTE attracts a particularly polarised attention that is not concerned with the usual issues of economic measurement.

This is due primarily to some of the factional interests that seek to reduce self and interpersonal harm and the secondary effects arising from substance abuse or crime or the noise and environmental problems that can make aspects of the NTE anti-social at times. There are also implications in this for service contributors such as the council, transport providers and for agencies promoting the development of the city and the wider state.

Throughout the study we have sought to involve all stakeholders who may have existing data or insight that could add depth to perspectives about the costs and the benefits of the NTE. However, while we have incorporated information wherever possible, the findings and conclusions focus upon the costs and benefits of the NTE as an economic entity that plays an important role in the current performance and future prospects for the City of Sydney.

It is crucial to highlight that this study is not the place to anticipate solutions to behavioural issues.

This subject is dealt with extensively in other related literature and studies. We present this first view of the Sydney NTE from the standpoint of measuring its size, structure and potential to increasingly contribute to a city with a positive vision of the future and with exciting opportunity to both change and develop the role of the NTE from its existing base.

We do make some technical recommendations about how data might be better or differently collected in order to re-measure the NTE to identify if progress is being made against the city's 20-year vision. We also make some suggestions about what might be reasonably concluded in policy terms from the findings, but do not make strategic recommendations about how the city should grow or regulate; intervene in or stand back from its NTE.

¹⁹ See later in this report for definitions of the NTE.

²⁰ The Night Mix Index – published by TBR and MAKE Associates 2010

It is essential to affirm that while the Council has commissioned the work, the client has not sought to influence the work and takes receipt of the findings in the spirit of the 'Open City' programme.

Should a reader wish to know more about the city's 'Open Sydney' process, they should contact Suzie Matthews, Sydney Night Time Economy Manager. If you wish to know more about the technical or economic development aspects of this study then please make initial contact with Terry Bevan, Alistair Turnham or Michael Lester as per the front cover of the report.

3 Aims and Objectives

The overarching aim of the project as set out in the brief was to

"Deliver an informative first measurement and policy point of reference for the City Council of Sydney and its partners in providing evidence to support both the development of a long-term vision and related policy interventions in furtherance of the City Strategy for the NTE."

The detailed objectives underpinning this work were to:

- **Establish a 'data framework' from which to source accurate NTE measurement.**
- **Deliver a first assessment of the economic costs and benefits of the Sydney LGA NTE**
- **Explain how the key findings might be used to support policy development.**

4 What is the Night-Time Economy?

4.1 The concept of the Night Time Economy

The Night Time Economy (NTE) is an increasingly important subject of interest to researchers, policymakers, private business and public agencies, as well as the media and the wider community.

Throughout history towns and cities have had some manifestation of an 'economy' that operates in the evening and at night. In ancient Greece (and probably before) people traded objects and services beyond the end of the commonly understood 'working day'. In Asia, night markets selling domestic goods, medicines and food have existed for thousands of years.

However, in the 21st century leisure or 'post-industrial' age, the transactional nature of the evening and night has appeared to grow in importance to the functioning of towns and cities. So while perhaps not the same content of economic contribution as activity during the daytime, what happens 'after dark' has become much more significant and perhaps visible for a range of reasons which we set out below.

This is particularly true in Western and Western influenced nations, where some have had a difficult relationship with the 'night', instinctively seen as something to be feared, avoided and regulated.

The first conceptualisation and research into the 'night-time economy', as it quickly became known, appeared in the early 1990s when a small number of cultural and urban theorists identified that European town and city centres, after dark, had their own unique qualities. While these qualities did not entirely separate them from the 'day-time', it was clear they produced certain distinct sociological phenomenon and raised issues different to those that drove urban governance and city management during the day.

These early studies focused on the liberating, consumer-oriented and urban planning aspects of the NTE.

However, since the late 1990s, and partly in reaction to the pro-NTE-liberalisation agenda influenced by these early studies, there has been considerable inquiry into the NTE by academics from sociological, criminological and health backgrounds, often focusing on the costs, negative externalities or 'negative impacts associated with activity after dark.

This includes both quantifying crime and disorder (and the fear of these in deterring a wider range of NTE usage), as well as measuring police, justice and health overheads and the operational costs of managing the NTE, which they generally link to increasing alcohol and drug fuelled 'excess' in Western towns and cities.

So while there is a growing body of analysis into such 'costs' of the NTE, other than the early attempts to posit 'the 24hr city' as 'a good idea', very little work has been dedicated to identifying and measuring the economic dynamics or social benefits of the NTE. Ideas such as the wellbeing and mental health benefits that come from enjoying a city's NTE provision, the freedoms associated with release from the work of 'daytime', the regeneration of post-industrial cities, the attraction and retention of students / high skilled workers, high growth companies, tourism and cultural and global events are rarely if ever quantified.

While not discounting the importance of understanding and measuring the NTE costs, and also noting the substantial quantity of best practice that now exists in planning, managing and improving the night time economy, it is with only a little irony that we note the least investigated part of the night-time economy is the 'economy' part. The part which generates jobs and tax revenues and which provides both personal and collective opportunity to 'play' as well as 'work' and inhabit a spatial geography.

This study, while addressing the costs and the benefits of Sydney's NTE, is part of a nascent body of research which seeks to promote more informed debate about the value of activity in cities after dark. In turn it will help to justify why an NTE might be grown and shaped, while at the same time reducing the negatives which are rightly the concern, not just of academics, the police and doctors, but also of communities, responsible business owners and managers and many other stakeholders who care about creating great places in which to live, work and play around the clock.

4.2 The composition of the Night Time Economy

In section 5 below we cover in detail the explicit measurement parameters we have used in our study of the LGA Sydney NTE. In this section we discuss and summarise what is generally understood to comprise the active elements of a NTE in most locations.

In subsequent sections we set out the time and geographical parameters that we have applied in our study of the Sydney NTE and why these have been chosen.

However, it is worth stating here that, whilst the precise definition of the NTE remains a subject of debate, for the purposes of this study, we consider it to be 'most non-domestic activity between 6pm and 6am' or which is 'undertaken between 6am and 6pm in order to support or service the NTE.

Unlike the few other studies that do exist, we have adopted a broader interpretation of what the NTE might be (in line with the client brief). This goes beyond the typology that researchers have tended to equate with the NTE, such as pubs, bars and nightclubs; police and health care activity, by also including the non-leisure businesses that operate after dark, cultural facilities which open in the evening and transport operators, who are often now required to provide a 24-hour service in major cities.

We set out below this potential 'universe' of activities under the headings of *benefits* and *costs*. This makes sense in the main but this dualism can occasionally be limiting. Firstly, it may 'normalise' certain activities as a cost *or* a benefit, when some parties might consider them to be the reverse! Secondly, it is the case, and this is something that occurs frequently throughout this study, that certain activities are both a cost *and* a benefit.

An example of this is certain modes of transport, such as rail. It is in the first instance a *cost*, in that rail tends to be heavily state-subsided. However, in return (and depending on the financing model) there are usually revenue *benefits*, either *indirectly* through contracts with private transport operators (who pay the state to run services as part of the network and take the income) or *directly* in the form of fares paid by the public to state owned transport operators.

Where an activity is a cost and a benefit, it is noted in the text.

For analysis purposes the benefits and costs have been sorted into headings which align with generally accepted descriptions of activity that are in use in many countries and these activities have also been further divided into core and non-core aspects of the NTE.

4.2.1 Benefits

Set out below are those activities associated with the NTE that we consider a benefit to the wider economy and community.

4.2.1.1 Drink-led activities

Drink-led activities are, predominantly, those operations where alcohol or 'wet' sales are the most important part of a leisure firm's revenue stream and the majority of sales are consumed *on* the premises. Therefore, this category includes bars, pubs and nightclubs (as well as 'hotels' in Australia as distinct from accommodation providers). It also includes social 'clubs' as found in locations such as Australia and the UK (although they differ substantially in each country).

The majority of drink-led operations are in the private sector, though there are sometimes exceptions to this and which may appear in data separately, such as bars in police, fire or council social clubs, which are sometimes run as individual businesses.

4.2.1.2 Food-led activities

Food-led activity encompasses a wide range of establishments where food is either consumed primarily on the premises through to hot and cold food takeaways.

The former category includes everything from fine dining to cafes (including coffee retailers) and while many of these operations will also offer takeaway food, it is not the main part of their business.

Conversely, takeaway food establishments, such as those specialising in burgers, pizza, Asian street food and bagels, as well as sweet food such as cookies and donuts, may have some seating. However, predominantly their business is based on eating food away from the premises.

The majority of food-led activities operate in the private sector, though there are sometimes exemptions to this that may appear in data separately, such as museum restaurants, council canteens or hospital caterers, which are run as individual businesses.

4.2.1.3 Retailing

Post-6pm retailing is increasingly the 'holy grail' of many town and city centre management initiatives.

This is because in many western cities the retail offer shuts down by 5:30pm or 6pm. This is the case even in larger cities such as Edinburgh, Dublin, Chicago or Sydney. This debate has been influenced both by increasing pressure on city centre retail from out-of-town malls and the rise of internet shopping, as well as an awareness of the success of late opening Asian markets and Mediterranean countries such as Spain, Greece and Turkey, where shops are often opening until 9 or 10pm as a matter of course.

However, there are exceptions to the traditional shop closing times in many western cities. Examples of this include late night trading on one evening a week, programmes of later opening in the run up to festivals such as Christmas and those city centre malls where common ownership allows the centre managers to insist on collective later opening, even if the remainder of a city centre's retail offer has closed down.

There are also those retail formats that tend to stay open later as part of their business model, such as tattoo parlours, theatre ticket booths and, in particular, convenience stores and retailers of alcohol for consumption off the premises. The latter, whether they are termed liquor stores, bottle shops or off-licences, can either stand alone or be part of larger city centre supermarket formats. They often open into the later evening.

4.2.1.4 Accommodation

Hotels, guesthouses, bed & breakfast, self-catered apartments and bunkhouses are often seen as an integral part of the NTE and indeed at first glance this might appear to be the case.

However, while the accommodation sector plays a crucial role in supporting the night time economy, its actual contribution differs based upon the purpose of the guest's visit to a city. Consequently we do not include accommodation in our core definition of night time economics.

Firstly, there is only the most direct of links between those who visit a city solely or mainly for its nightlife: 'clubbing tourists' (or less ethically perhaps: 'sex tourists'). Then there are visitors who are on a city break, who are visiting friends or relatives (VFR) or on business trips, who happen to take advantage of a meal, a drink or other services in the evening or at night when they are staying. There are those who stay in accommodation but never venture beyond the front door and do not contribute to the NTE.

It is impossible to say what the precise figures are for these varying groups without survey research.

4.2.1.5 Performance venues

Performance activities are generally regarded by night-time economy managers and advisers to be crucial to maintaining and enhancing the diversity of urban centres and entertainment zones. Generally, 'performance' might be considered to include organisations, public or private, that offer film (from multiplexes to art house), theatre, opera, dance, comedy, burlesque and circus, as well as the full range of live music, ranging from classical to folk; jazz to pop and rock.

In most countries, the majority of these activities tend to be staged, promoted and operated by the private sector; however there are some, particularly theatre opera and dance which receive full or part subsidy from city, state or national government, or from charities and arts funding agencies.

4.2.1.6 Cultural institutions

City managers and planners increasingly see the later opening of cultural institutions as the bedrock of a more diverse NTE, both in terms of tourist provision and local people wanting to enjoy their city at night.

Slowly, cultural venues, such as museums, galleries and libraries are opening later, either on a regular basis (where demand is sufficient - usually in world cities like London, New York and Los Angeles) or on special nights where the venue, with special showings, unique entertainment, venue dressing etc. becomes a destination.

There has, particularly in Germany with its 'Long Nights of the Museums', been an opening up of cultural institutions for one night each year. While of welcome though relatively limited economic impact, this type of initiative's symbolic value is substantial. The novelty of being in a museum late at night has been shown to change people's perceptions of their city at night and of museums generally, often attracting non-traditional audiences. However, more research is needed to understand if events such as these and 'Nuits Blanches' or Light Nights (see below) are able to drive repeat visits and visitor spending in city centres in the weeks and months after the initial event.

The majority of post-6pm cultural events tend to be funded and operated by the public sector. However, there are some initiatives that receive full or part subsidy from arts charities and funding agencies or corporate sponsorship.

4.2.1.7 Sporting, leisure and gaming venues

Sporting and leisure venues have not traditionally been thought of as part of the NTE, but even a cursory assessment reveals that gyms, spas and fitness clubs, swimming pools and sports stadia (be they internationally significant or local clubs) play an important part in the post-6pm city.

There are two sources of economic benefit, firstly the receipts from paying customers for regular sporting events and secondly the hire of venues for corporate functions and commercial opportunities. The latter is an increasingly important source of income for sporting and leisure venues, particularly after 6pm when often the core sporting events are not taking place.

This sub sector of the NTE also includes casino, gambling, bingo other gaming based leisure activities. These have a greater significance in countries such as the US, Canada, Australia and many Asian countries than, say, European or South American nations. In Australia for example, the role of the 'club' (as distinct from the 'nightclub') mentioned above is also a key purveyor of gambling activities.

While gaming operations are almost exclusively in the private sector and therefore their revenue generation is a direct benefit, in most countries some of the sporting and leisure venues are public sector operated and so there is clearly a cost implication for the state, though at the same time this is likely to be (partially) offset by revenues for attendance and the hire of venues for functions.

4.2.1.8 Brothels and sex establishments

Brothels and sex 'encounter' venues are present in larger town and city centres or their peripheries, particularly in areas that have high numbers of male workers, e.g. finance and commercial districts as well as in some gay quarters. The typology of venues in this subsector ranges from lap or table dancing bars to massage parlours and brothels. Depending on the legislative environment, these will either appear as legitimate businesses or will operate in the grey or illegal economy. Assessments of their economic impact are always likely to underestimate their part in the NTE.

What is the Night-Time Economy?

Less formal sex work: that which is practiced on the street and in red light districts or in hotels, is clearly a part of the NTE, but it is almost impossible to measure, and would require a dedicated study to really reveal its true economic impacts.

4.2.2 Costs

In this study we seek to gain as close an understanding of the cost elements that it is agreed may be driven to some extent by the dynamics of the NTE. Some of these dynamics may be considered to be consequential or coincidental. This has no real bearing upon the need to reduce costs and the causes of costs which result from anti social behaviour.

From a strictly comparative standpoint the activity headings which contain components of NTE cost are all covered in our definition of non core NTE activities and detailed in Table 15 in this report.

These activity headings are measured in total on the same basis as the benefits which contribute to the NTE core employment and turnover. The figures are validated by updated comparison of the 2006 FES Survey with the latest 2009 ABS data and extended into gross sales figures by the application of ABS 2009 sales per employee per broad sector. The overall totals excluding identification of the NTE factor are as follows²¹

Public Order and Safety Services	Turnover \$226 million
Hospitals	Turnover \$219 million
Local Authority Administration	Turnover \$112 million
Road Passenger Transport	Turnover \$21 million
Rail Passenger Transport	Turnover \$724 million
Water Passenger Transport	Turnover \$43 million

4.2.2.1 Transport

Transport is a major challenge day and night for urban areas the world over, with congestion, sustainability, parking, land use contest, vehicle-pedestrian conflict, funding gaps amongst the most pressing issues.

However, connectivity is particularly crucial to the NTE, predominantly because historically most resources and strategic thinking about urban transport has concentrated on getting people to work and home. Yet a piece of research with users and non-users of town centres undertaken by the Civic Trust and sponsored by the UK government, as part of the world's most comprehensive NTE research programme, showed that while fear of crime was the third main deterrent to visiting the NTE more often (or at all), it came behind 'a lack of things to do' and, topping the list, a 'lack of transport'.

To this end, any assessment of both the costs and benefits of the NTE must examine the role of transport. This would probably start by separating out what needs to be there just to make the city work at all, from what is needed to provide a clean and safe transport system for the development of the evening and night-time economy.

In terms of 'modality' i.e. method of transport, each system has different costs and benefits and usage patterns after 6pm (which often change markedly between modes from the patterns found during office hours). They also tend to have different ratios of public-private investment and financial returns, not just *between* countries but also *within* countries and even across greater metropolitan areas.

For example, bus, rail, underground, ferries and light rail transit (LRT) tend to be 'provided' at a strategic level by city or state governments (and in some very large infrastructure projects cases, by national governments). Yet, increasingly, private transport providers operate the vehicles and staff, and sometimes even the network infrastructure like tracks and stations, under contract to various government bodies. In return they collect fares and/or an operating subsidy. Private transport providers are key

²¹ Based upon sector employment updated to 2009 and ABS 2009 sales per employee per sector

players in the wider transit system and particularly in the NTE where user flows are generally lower but can be very high into certain nodes and as the leisure economy grows, are increasing all the time.

However, while rail and underground, and some forms of light rail transit such as trams, rely on a self contained track, power and station infrastructure, other modes including buses, taxis, commercial vehicles, cyclists, pedestrians and private motor vehicles share the local, trunk and highway system.

It is relatively clear but not necessarily straightforward, to attribute the NTE usage of self contained transit systems within overall costs.

In terms of shared usage of transport media, clearly private motor vehicles are the major consumer of road space. In terms of the NTE, despite environmental, congestion and parking concerns, private vehicular access remains particularly important in allowing access to key groups required to diversify the NTE in city centres and entertainment zones. In particular, families, older citizens and disabled people will only make use of the NTE in if they have vehicular and probably car access.

So while there is no direct *benefit* in terms of income generated from roads (with the small exception of toll roads, tunnels and bridges), the highway infrastructure is an important aspect in delivering an accessible and inclusive NTE.

Private vehicle use is intrinsically linked to parking which needs to be safe, secure, convenient and appropriately priced. Parking can be viewed as both a cost and as revenue and this varies depending on the mix of private operators and that provided by local authorities.

While the size of urban area, density of housing in CBDs and levels of safety are just a few of the factors that affect levels of pedestrian movement, it is true to say that in most towns and cities throughout the world most people do not walk *into* a night-time economy. However, they do tend to walk *within* and *between* entertainment zones and from venue to venue once they have arrived. The pedestrian costs of pathways adjacent to highways, public spaces and the lighting, which is required to meet standards, is again a cost which is often not considered in assessing either the impact or the potential of the NTE.

There are very few cities, if any, where taxis are not the predominant late night mode of transport (i.e. post midnight). Even in New York, which has the most comprehensive late night underground rail system, there is considerable reliance on taxis. In this study we include taxis as an indirect (non-core) benefit rather than as a cost (though there are some licensing and regulation and enforcement fees) as generally they create employment and wealth considerably in excess of the costs of managing the system.

4.2.2.2 Police and justice

Police and justice activity is generally considered a cost in terms of the management of the NTE, although some police forces do have small revenue streams in terms of paid-for-policing such as for the management of public events, sporting events and concerts, although this depends on individual arrangements within respective states and countries.

NTE police inputs can essentially be broken down into 'preventative' and 'reactive' costs. In terms of preventative this goes further than the staff costs for those police officers on 'the beat', but also includes those who are needed to operate control centres, CCTV technology, intelligence gathering and major planned operations. In terms of reactive costs, this mainly includes responding to incidents within the NTE, but also raids on 'problem premises' and enforcement visits.

In addition to these 'operational' costs, there are also substantial capital costs in police operations. The NTE often makes use of this infrastructure, such as vehicles, buildings and IT systems as well as ongoing revenue costs of running the force ranging from fuel to utilities; training to uniforms.

Once individuals who have been charged by the police for an offence, a trail through the justice system is set in motion. Before outlining this 'justice trail', it is salient to ask what might be considered a legitimate police and justice cost linked to the NTE, because this is a particularly contested area (and one that we explore in greater depth later in the report).

Essentially, the question is, at what point does an incident or offence (requiring police and justice system time), and which takes place between 6pm and 6am (if that is how we are defining the NTE), become an NTE offence? Is it *any* offence that takes place between those hours, regardless of whether or not it is in a premise that might be typically thought of as 'the NTE', e.g. pub, bar, club? What about if it is near a typical NTE premises or to a cluster of them? What about shoplifting from stores open after 6pm or domestic abuse incidents in residential accommodation that happens to be in or near to entertainment zones?

Differing parties will have their own views and we set out our own definition for the purposes of this study later in this report. However, once those charged with an offence, that may be related to the NTE (however that might be defined), leaves police custody, whether cautioned, bailed or remanded; they then enter into the justice system formally. In terms of a caution and (usually) a fine, this does generate a small revenue benefit to offset a little of the considerably greater costs of administering it.

Clearly, charges whether an individual is found subsequently guilty or not, lead to greater costs to the taxpayer, not just covering police evidence-giving and witness time, but court and judicial costs, lawyers, administration and then probation and correctional costs. In reality, very little of this will be offset, even if a substantial fine or damages are awarded.

Below we set out the specific limits of the definition we have used for NTE-related police and justice costs for this study of Sydney and that this is one of the most difficult aspects of measurement to both derive data for and to attribute and disaggregate accurately.

4.2.2.3 Health

Health, like crime and justice, is one of the more contested and challenging areas of measurement within the analysis of the NTE. Here we note the potential parameters in which health costs could reasonably be linked with activity associated the NTE.

Perhaps most obviously, in the first instance, the admission of patients who have consumed too much alcohol and / or drugs, particularly while visiting licensed premises, remains one of the most directly attributable routes into the health service from the NTE. A second route into the health service is becoming a victim of crime at the hands of somebody who has consumed alcohol or drugs within an NTE related setting.

However, like police intervention, there are questions we must legitimately ask here. For example, what if somebody commits a crime while in a licensed venue or NTE entertainment zone but who has *not* been drinking alcohol? What if they are intoxicated (to whatever degree) but they have not been served alcohol by any premises they have visited (perhaps they had 'pre-loaded' at home before they came out) and therefore the premise has not broken any laws (where relevant in that country)?

It is hard to argue that in these situations that the resulting need for medical attention is not at least in part due to the attraction of an entertainment zone that can draw in people and that without that cluster, those incidents would not have happened there. However it is more difficult to argue that these issues are simply catalysed by the NTE and that responsibility does not lie to some extent either with individuals for their own behaviour or be more deeply rooted in their personal stories. Would these incidents take on a different character and happen elsewhere is not an issue we have to consider here. As far as the NTE is concerned the issues come down to ones of regulation and management and responsible behaviour.

Ultimately, this remains a fluid issue that requires definition by geography, time and what we consider to be the 'universe' of NTE activity as we have defined it for this study.

4.2.2.4 Other locally delivered government services

Excluding transport, health, police and justice services, it is unusual if other local, state or national government provision has a substantial or direct cost relationship with the night-time economy. However, government at the local level has many services where part can be attributed to the NTE. Below is a detailed list of those costs that can typically be found in most cities.

The role of **community facilities, buildings and spaces** in supporting the NTE is often overlooked. And, while there is some crossover with sports and leisure facilities, there is also a distinct set of provisions that tend to be owned or provided by councils and which play an important role in diversifying city centres and neighbourhoods after dark. These include community and drop-in centres, nurseries, schools and youth clubs, all of which may at times open after 6pm, albeit it for what is likely to be a minority of their overall operating hours. While they are predominantly a cost, they do sometimes generate some income when hired out.

Planning and urban design play major roles in the creation of safe and sustainable night-time economies, though awareness of this potential, particularly amongst city planners and designers *themselves* about the implications of their decisions in shaping the NTE have tended to be very limited. However, this is slowly changing with some planners acknowledging that clusters of alcohol-led young persons' bars tend to exacerbate violence and disorder; that the absence of coordination between entertainment zones and public transport hubs is paramount; and that the appropriate location of residential development in relation to late night uses is primarily a spatial consideration.

Therefore, while there are few if any quarters of any city that are exclusively the domain of NTE uses, most large cities have entertainment zones that are predominantly driven by after dark activity. Therefore, it is reasonable to say that a portion of the city's strategic planning team as well as some of its area-specific master plans can be attributed to the NTE.

In addition, a proportion, albeit relatively minor, of all development control decisions and planning enforcement are related to NTE-specific uses, e.g. bars, pubs, hotels, clubs, cinemas, theatres, sex clubs, casinos, and other uses where the primary activity is post 6pm. There is a less substantial but still relevant link between other post 6pm uses where a part of the business is attributable to the NTE, such as liquor and convenience stores, gyms etc.

4.2.2.5 Economic development, tourism, events marketing and communications

While tourism is often measured as a low wage aspect of an economy it plays an important role in exports through the acquisition of foreign currency and in the development of reputation and contacts with the rest of the world.

The economic development departments and tourism teams within councils increasingly work with other city, state and national destination management organisations (DMOs) to promote tourism as an important sector. The night time economy is a critical part of the tourism sector and a lynchpin around which many city destination marketing strategies are based. The NTE is also a key part of a town or city's ability to attract and retain companies, workers and students. Therefore, some of the destination marketing capacity of relevant organisations needs to be considered as attributable to the NTE.

Major public events as well as local festivals, parades, fiestas and street celebrations are critical to the identity of towns and cities, and it is hard to imagine a city of any standing that does not have an established and probably growing calendar of events. However, many of these events, which rightly often have a family focus, have traditionally finished at 5 or 6pm. Yet, increasingly, the careful extension of existing events into the evening or the introduction of new after dark festivities are appearing on the international event management map, including *Mardis Gras*, 'Light Nights', 'parties in the park', New Years fireworks, Christmas markets and faith celebrations.

It is difficult to estimate the economic benefits of major events; where figures do exist they tend to be quoted without reference to any overall economic impact. For example, the uplift in sales at hotels, bars, restaurants and other beneficiaries during an event will be included within the turnover of those individual businesses over the course of a financial year. Costs to councils and other public agencies are a little easier to establish, by measuring the planning time and additional resources required.

Likewise, many cities are now realising that the night-time economy needs its own dedicated staff, just as city centres have managers responsible for liaising with retailers, marketing the daytime retail offer and organising events to drive footfall. So, increasingly, it is common to see night-time economy managers and coordinators, marketing officers, city rangers, responsible alcohol managers and so on,

and these can be considered dedicated NTE resources. Sometimes these are funded through 'business improvement districts' (BIDs) or similar NTE business-led organisations (e.g. TASQ in Dublin, Heart of London and New York's Times Square BID), but mainly local councils resource these positions.

Lighting can be broadly separated into three areas. Firstly, architectural or structural lighting that has been incorporated into the design of structures or which has been retrofitted to bring about an enhanced building elevation, improved public realm or increased safety. Secondly, there is footway and highways lighting, which is required for the safe passage of pedestrians and vehicles through a city. And, thirdly, lighting installations and light-art sculptures are often installed in night-time economy hubs to make them more attractive and / or safer.

While some lighting is paid for by business organisations (e.g. BIDs) and in the case of art lighting, often by art funds and charities, the majority is funded by transport agencies, whether they are council departments, state highways agencies (as in the US) or a separate pan-metropolitan transport bureau, such as Transport for London. Regardless, the cost of lighting - capital investment, maintenance and power - is substantial.

However, defining exactly what NTE-required lighting is remains a challenge. For example, what needs to be provided for vehicle and pedestrian safety for those simply moving through an urban area at night, rather than in directly engaging in a 'night-time economy'?

Cleansing and street scene have a vital role to play in maintaining an attractive and safe-feeling NTE. A clean and ordered public realm has been evidenced at a general level through the research and practice that has developed around the 'broken windows' theory over the past 20 years. That is, in order to limit further crime and disorder, small transgressions such as broken windows as well as the likes of graffiti removal, litter collection, fly posting etc. need be tackled at the earliest opportunity.

While NTEs rarely experience the same cumulative volumes of people as footfall through a CBD or city centre retail zone, 'entertainment zones' are often growing in importance and now experience substantial and increasing numbers of pedestrians. Further, many of these users create a higher negative impact on the street scene through the disposal of litter from fast food venues and discarding alcohol receptacles, as well as vomiting and urination – issues that tend to be less associated with the daytime.

While a small amount of post-6pm litter is generated by those just passing through the city at night, the vast majority of this detritus will be as a direct result of the attractiveness of entertainment zones to users. Therefore, cleansing of these areas and the routes in and out of them (often between them and transport hubs) is usually a considerable overhead that is nearly always born by councils.

That said, there are city centre property owners (often those with large 'public-private' estates) who have very high standards of cleansing within their own boundaries and there are isolated examples of responsible fast food and licensed venue operators who provide cleansing external to their premises. There are also a small but growing number of business associations who have come together to provide additional late night cleansing services as part of a wider mandate. These include business improvement districts across the US, but particularly in Manhattan, Temple Bar in Dublin and Broad Street in Birmingham (UK).

4.2.2.6 Other council and public services

Parking is both a cost and a benefit as noted earlier. In most locations parking is provided through a mix of public and private operations. In the former, the return may or may not cover the cost of providing on-street and off-street parking and its enforcement. In terms of private provision we have treated the transport related aspects as a non-core benefit and therefore they do not appear in our principle findings as a core benefit.

There is also a complication around parking because in different locations, while private car parking is still charged for after 6pm, in some instances, for public car parking, councils may seek to drive later retailing by suspending charges in the evening.

Other council resources with a partial NTE cost impact might include:

- CCTV and systems and staff.
- Children and youth services working with young people in buildings or outreach in parks
- Community engagement and public communication, where a council may seek the views of residents and businesses on issues with high NTE-relevance, such as crime, street cleanliness and safety.
- Internal professional services (and outsourced costs), a proportion of which are NTE-related, such as legal fees related to defending licensing or planning applications for new or extended NTE uses such as bars or restaurants that do not fit with a city's respective policies.
- Those internal support and administrative services such as IT and HR which will have been used by councils on tasks or roles relating to the running of a city after dark.

4.2.2.7 Voluntary services

Voluntary and charity services by their very nature are not an 'ordinary' cost, in the sense that much of what they deliver is done so on the basis of goodwill, so in some ways if quantifiable they could actually be seen as a benefit. However, there are still goods and services bought by those charities and voluntary activities that operate within the NTE (from food and homeless charities to Street Pastors; stewards and marshals at public events and the time given to local community forums).

4.2.2.8 University and educational institutions

Students are often attracted to study in towns and cities as much by their reputation for socialising and nightlife as they are by an educational reputation and as such are proven major users of the NTE. Yet other activities operating within educational institutions after 6pm, such as evening lectures, functions and student societies are often overlooked in the analysis of the NTE, yet they contribute diversity and energy to any educational quarter of a large town or city and are part of a more holistic understanding of how town and city centres and neighbourhoods work after dark.

4.3 Measurement of the Night Time Economy

This section looks at various relevant studies in which the NTE has been measured and what may be usefully drawn out for this research into Sydney's NTE.

Measurement of the NTE is an even more recent phenomenon than the 1990's 'conceptualisation' of the NTE itself and the more recent policy debates that surround it. This is particularly true of the economic analysis of costs associated with the NTE and, particularly, its benefits. The latter have rarely, if at all, been given the attention they deserve until our own work gave a first monetisation of the NTE in the UK in 2010 (see below).

There has been some measurement of the negative externalities associated with the NTE, for example, impact on hospital admissions, crime and disorder levels, deterrence of potential footfall and problem gambling. But even these have rarely sought to 'monetise' these problems, more generally it has sought to place some kind of scale on them. When studies have sought to provide a fiscal appraisal of activity within the NTE, they have generally been extremely vague, possessed of a tendency to overstate the costs or the benefits (often influenced by vested interests) or suggest that what can be measured is "only the tip of the iceberg".

However, there are relevant studies, which, despite having their own aims, geographies of interest and areas of NTE activity measurement, are useful in helping us fill gaps in our own knowledge. We have divided them into cost and benefit studies below (some address both costs and benefits and these are located where they fit most naturally).

4.3.1 Cost Studies

Costing Alcohol-Related Injuries Presenting to St Vincent's Hospital Emergency Department, Poynton et al (2005)

This study is based on research undertaken in Sydney's main hospital for the NTE – St Vincent's. It measured both the portion of 'presentations' where alcohol was involved (in whatever way) and what the short-term financial cost was of these admissions. The study went further than others that had previously been undertaken in either the city or state through the combination of observational research into the number of admissions (by stationing a researcher at the emergency department (ED) for 24 hours a day, across 7 days and over four weeks) with an economic analysis of presentations based on triage class.

Of 4,878 injuries presented at St Vincent's ED over these four weeks, 1,345 of these (27.6%) were considered 'relevant to the study'. In addition, over the same period 66 patients were seen for alcohol intoxication. This latter number appears low, but given that patients presenting for over-consumption of alcohol (either via paramedics or self-admissions) tend to be *very* seriously intoxicated, then this is not necessarily surprising.

The study subsequently estimated the cost of alcohol-related injuries at St Vincent's (as defined by the study) as the region of \$1,128,873 to \$1,383,924 in 2004/5. In addition, the cost of the alcohol-intoxicated patients to the hospital was \$94,652.

However, this is only a very partial elaboration of the probable costs of alcohol-related injuries and illness either to St Vincent's or the city. Below are some of the limitations both of the study itself (which are fully acknowledged by the authors and do not diminish its overall importance in helping to estimate alcohol-related health implications of the Sydney NTE.

The study, basing its work on costs modelling from a previous study in Flinders, takes into account a relatively wide range of costs, from doctor and nurse time (as per the NSW police costs study) and allied professional time, well as procedures, investigations and drugs.

However, there is no costing for paramedics in presenting the patient (where they have not self admitted). It does not include an attributed or proportioned cost to the ED for the overall operational and capital expenses involved in running the hospital. This would include balance sheet items such as beds, medical equipment, support equipment, administrative staff and other HR costs, buildings and maintenance, and outside professional services, insurances and IT.

Therefore, the study while robust in what it considers, substantially underestimates the overall cost of alcohol-related admissions (something that it fully acknowledges). This is compounded even for staff time as it only attributes costs within the ED dept, and does not track those transferred into intensive care units or general wards for recovery. Nor does it cover subsequent treatment once discharged: such as ongoing remedial physical care for outpatients, transport to and from hospitals, brief interventions or those who enter the dependent drinker's services. Further it does not attempt to cost other externalities, such as lost days at work and productivity loss.

Other limitations of this study include.

- The data is somewhat out of date, with the research undertaken in 2004 and 2005 (although to update it would be relatively straightforward using inflation factoring and wage increases). However, there may also have been notable changes in the number of admissions (either upwards or down).
- While the research captured those individuals presenting for alcohol incidents at St Vincent's, these are not always linked to the NTE. While other studies suggest those admitted from the NTE are likely to be in the majority over a week or year, other presentations also make up these figures. For example, street drinkers found in the city centre during the day, children drinking in parks and who have become seriously intoxicated (even after 6pm) or people who have fallen or burn themselves at home after drinking too much cannot be reasonably linked with the NTE.

- Drugs mixed with alcohol may have exacerbated the extent of the injuries or intoxication recorded. However, while often serious individually, the numbers of such incidents is likely to be relatively low based on trends in nightlife intoxication (e.g. cocaethylene poisoning) observed by other studies.
- While St Vincent's is the main hospital associated with the NTE geography in Sydney, and therefore it is likely to receive most of the admissions that are related to the city's NTE, there are three other hospitals within the LGA. These also serve (although to a much lesser extent) those who have been involved in alcohol-related injuries or intoxication (not necessarily in an ED capacity but also in treatment). Obviously it was not the intention of the St Vincent's study to take these into account, but they do have a bearing on our study.
- The St Vincent's research does not differentiate where patients are from or where the incident took place. Are they all from the local area, from within the LGA or beyond? Or are some patients 'reallocations' from other hospitals due to a shortage of facilities. Or are they from neighbouring council areas such as Marrickville and Leichhardt?
- There are those who do not present to any hospital at the time of an incident, but who still might end up in a doctor's surgery later in that week having been a victim of an assault in an NTE zone or who have injured themselves on the way home from a night out in the city whilst intoxicated.

Overall, despite these limitations, the study does give a helpful indication of the broad operational costs of staffing and treating alcohol-related incidents within the city's main ED. But it highlights how, even in such a comprehensive and robust study such as this, producing accurate estimates is difficult. We seek to address some of these issues by using other data collected in the course of our research.

Estimating the short-term costs of police time spent dealing with alcohol-related crime in NSW - Donnelly et al (2007)

This study sought to estimate the percentage of NSW police officers' time spent dealing with alcohol-related issues and to quantify the cost of this time.

In summary, it suggested that the time taken by officers to deal with alcohol-related issues across NSW in 2005 was \$50m.

It was based on surveys completed by officers in 2005 from a representative sample of 14 (out of 81) local command areas across the state. Over an 8-day period officers who completed the study gave a marker to any task or incident as part of their daily work if alcohol had been involved in any way.

The definition of 'alcohol-related' included both victim and perpetrator. It could range from heavy intoxication as the apparent aggravating factor of a serious crime, through to an incident that involved somebody who had consumed alcohol at a relatively low level. It could also cover time for officer training around alcohol-related issues and administration resulting from incidents previously logged. Activities were also segmented into *reactive* (e.g. arresting suspects, responding to callouts to noise from licensed premises) and *proactive* (e.g. licensing visits, liquor accord meetings).

The data was grossed up from the 8 days to represent what might be a reasonable estimation of officers' time spent dealing with alcohol-related incidents for a whole year and also to take into account that not all officers took part. (The study demonstrates that because not all officers were able to fill in the survey, this had underestimated the potential number of hours spent on alcohol-related crime by about a third).

However, similarly to the St Vincent's emergency admissions study, this research can only partially reflect the 'true' costs of an individual public service's commitment to the NTE. This is for a number of reasons, some of which probably inflate the costs and some of which underestimate them. However, there can be little doubt that, overall, there will be an underestimation (for the reasons set out below), but it would require a study of much greater timescale and magnitude to fully calculate this.

Firstly, Donnelly et al's study covers *all* alcohol related incidents recorded by officers in the sample LACs across NSW (the study did not specifically set out to define activity within the NTE separately). Therefore, it may overestimate the number of incidents and their cost from an NTE related standpoint since not all alcohol-related incidents requiring police time will have any sort of NTE context.

However, this overestimate may be offset by the likely *under*-reporting by officers noting alcohol as a factor in their work. For example, a substantial proportion of surveys were returned showing no alcohol-related time taken up by officers, yet it was clear that this must be extremely unlikely given some were patrolling city centres at night. A likely explanation (common to other alcohol –related studies) was that they had probably just not filled out the survey.

It is important to note that this study *only* covers officer time dealing with alcohol-related work (albeit both commissioned officers and administrative staff). It does not include an attribution for the cost of, uniforms, training, contracting of outside specialists and professional services, e.g. lawyers and vehicles, as well as most expensively, buildings and their maintenance.

The recorded time spent by officers were then given a \$/per hour dependent on their grade and grossed up to give various figures for regions within the NSW police area.

The study's use is limited in consideration of Sydney's NTE because there is no relevant segmentation by time of day (other than to demarcate between those officers who started their shift before and after 13:00hrs). While this is broadly indicative, i.e. those who start after 1pm are more likely to spend time dealing with alcohol related incidents in the NTE,²² it is not divided into logical timeframes, e.g. 18:00-21:00hrs, 21:00hrs-00:00hrs etc. which would be most helpful to an NTE study). However, it is possible that the original data set could give this information and this was requested from the authors for use in the analysis later in our own report.

Likewise, geographically, while the study doesn't correspond exactly to the spatial boundaries of our study (i.e. Sydney LGA), it is useful because it breaks down the state into the five NSW police divisions, and so we can get closer to what the operational staff costs are of policing the city for alcohol-related issues.

The inner (central) metropolitan division of NSW police accounted for just under \$13m dollars of the state total of \$55m (not adjusted for wage increase to 2009/10). This division includes a number of high profile LACs (local area commands) that cover the Sydney LGA area e.g. City Central, Kings Cross, Redfern and Surrey Hills, as well as the Rocks (although this is predominantly Sydney Harbour Foreshore Authority administered). However, it also includes lower profile but more numerous suburban local area commands within neighbouring councils, such as those covering Botany Bay, the Eastern beaches and suburbs, North Sydney, Hurstville, Leichhardt, Cronulla, Newtown, Kogarah and Sutherland.

Interviews with senior police officers undertaken by our study team indicate that the majority of alcohol-related crime and disorder within the inner metropolitan area is taking place within central Sydney, particularly around Kings Cross, Oxford Street and clusters within the city centre CBD.

For this reason, it would not be unreasonable to suggest that (subject to wage inflation) a likely proportion of staff costs for policing the alcohol induced incidents around the NTE will be somewhere between \$7m and \$10m per annum.

However, this is too general for our purposes as it includes no consideration or attribution for other operational and capital costs (which will be much greater than wages alone), and we seek to supplement the statistics in this study with more up to date, holistic and geographically discrete data.

4.3.2 Benefits studies

Social Economic Impact Study of Clubs in New South Wales, Allen Consulting (2008)

²² As other studies affirm, between 80 and 95% of alcohol related incidents tend to be found in city centres between 6pm and 6am (and particularly between 10pm and 3am), with the majority of them.

Registered clubs (rather than nightclubs) play a key role in the socialising infrastructure of Australian life and to the NTE, although there are relatively few of them within the Sydney CBD, with more in the outer LGA. Electronic gaming machines (EGMs) are substantial financial drivers of clubs, though members value them particularly for their sporting facilities, food and drink and sociability.

The report by Allen Consulting sets out the economic value of clubs to state income and general wealth generation, as well as their contribution to community life. As per the report on casinos by the same authors (explored below), the research was based on a self-certification survey, rather than ABS or tax revenue or other private database business data so there is a heavy reliance on the accuracy and credibility of returns.

The report puts the financial contribution of clubs to the New South Wales economy in 2007 at \$5.4bn and states they employ 2,177 people. It also suggests clubs are having a 'tough time', evidenced by declining expenditure on supply services and goods and in the overall number of clubs.

The study is obviously of NSW as a whole however it does offer some 'proxy' value. That is, the \$5.4bn turnover that the report claims clubs in NSW generated in 2007, was achieved by 1,535 clubs (1,359 of them members of Clubs NSW), of which 443 responded to the researchers' survey, giving details of their type and size.

The research does not allude to any negative externalities of the club sector, and while there will almost certainly be some, given that there is the sale of alcohol, this is likely to be very limited given the controlled environment in which it is served and alcohol being only part of a much broader mix of activities.

Casinos and the Australian Economy, Allen Consulting (2009)

According to this report, by Allen Consulting on behalf of the Australasian Casino Association (ACA), in 2007-08, Australia's casinos earned revenues in excess of \$4 billion and employed c20,000 staff.

The sources quoted for the statistics are older reports by the ACA itself. Therefore, it can only be partially relied upon as it does not make clear whether these figures are based on any or (preferably) all of the following: the ABS, tax returns by casino operators or private business databases such as D&B, Thomson or Yell. As such the results might simply be a survey of casinos, and while this is not necessarily flawed in itself, it opens up the possibility to overstate contribution in terms of turnover and employment. It remains a useful reference point for the analysis contained later within our own report.

Logically, the report highlights that gaming is the main draw of the casino industry, comprising 78% of casino revenues in 2007-08, with the balance being food and beverage sales, conventions and conferences, accommodation and entertainment.

Much of the report is spent setting out why the negatives caused by problem gambling are not included in Allen Consulting's 'cost benefit analysis' modelling. The main reason the authors give for this is the lack of robust evidence in Australia of gaming's negative social costs, although proxies from extensive research in other countries could have been reasonably used to produce a guideline figure. Essentially, this makes this study a limited assessment of revenue.

There is also considerable positioning of what negative externalities could (or should) be legitimately attributable to the gaming industry if any evidence did exist or was to be produced as to the scale of the social costs. Logically from a study funded by casino operators it seeks to exclude rather than include negatives. Ostensibly, the argument the authors put forward is that, other than the cost of specialist services, such as problem gambling support, which can be directly attributed to public agencies, all other considerations are ones of 'wealth transfer' or 'personal cost' to the gambler.

There is no doubt that direct negative impacts of gambling lead to a need for public services such as gambling support and this inherently consumes cash which might either be retained by taxpayers or could be used to improve other public services.

Other negative externalities, such as welfare payments, bankruptcy costs, debts and theft, while less directly a burden on the public purse, are still a consequence of the collective permission given by society for casinos to operate in any community. Therefore, it is hard to imagine how they can be considered wholly unrelated, which is what the report effectively argues.

The Allen Consulting report provides a useful fiscal reference to our own estimation of Casino contributions to the Sydney LGA NTE, but while we would be able to develop a reasonably robust proxy figure for the costs of problem gambling in the city area, this would be a study in itself and is therefore beyond our brief. It is fair to say though, that the revenues, employment and enjoyment generated by the casino industry will be, to some unknown degree, offset by the costs of problem gambling and, as Allen Consulting concludes, more research on this issue would be beneficial.

NightMix 2009 TBR & MAKE (2010)

As noted in previous sections, the authors of this report on Sydney's NTE, TBR and MAKE, have also compiled a national index of the night-time economy in the UK. The index ranks all 409 UK council areas by the size of their NTE (against a number of measurements, e.g. turnover of firms, number of firms and number of employees, sales per employee as a proxy for performance).

The work was the first of its kind anywhere in the world and reflects the UK's leading (though not exclusive) expertise in managing and planning the NTE from a range of disciplines.

The 'Night Mix Index', as we termed this league table, suggested that the UK NTE core economy was worth around \$66bn in 2009. We are due to publish another index for 2010.

Our methodology drew data from the TBR 'TCR'²³ database and segmented it into various recognisable sectors in the NTE e.g. alcohol-led (pubs, bars, nightclubs), food-led (restaurants, takeaways), entertainment (e.g. theatres, cinemas, performance spaces). These were in turn aggregated into 'core' NTE. A secondary set of firm activities was created to acknowledge the role of 'non-core' NTE businesses that include support services purchased by core NTE businesses such as marketing, catering supplies or door security and services such as transport and accommodation which help consumers to access the NTE. However, we could have gone much further and the figure of £66bn, which was a conservative estimate, may quite easily have approached £100bn if we had mapped the full NTE supply chain.

However, if we had done this we would also have needed to reduce some of our sub sectors' contribution to the overall NTE figures, which we acknowledged in our report. For example, most NTE activities (nightclubs aside), for example, restaurants, pubs and even bars and theatres, tend to open across day and night even if the bulk of their trade is at night. Therefore, some of their trade is outside what we would term the NTE operating hours.

Nevertheless, because the core of the NTE is made up almost entirely of businesses dominated by post-6pm trading, any reduction in collective turnover to reflect this much smaller daytime trade is likely to be a much smaller negative figure than the positive increase contributed by including the supply chain. This is something we intend to refine as our analysis of the NTE continues, but it is worth mentioning here as this is an issue that we have also had to face in measuring the NTE in Sydney.

The response to NightMix in the UK has been extremely positive, with many practitioners in the NTE interested both in where their NTE ranked, and also in how the data could be used to measure local performance, compare against competitor destinations and in some cases change the balance from alcohol-led businesses to a food and entertainment-led offer.

Practitioners have also been using it to argue for greater recognition of the NTE and better resourcing of its management, proportionate to retail-led daytime city centre activity. For example, the NightMix index showed that the core NTE activity made up around 5% of the UK's GDP. This is about half of the 11% contributed by the retail sector. However, given the amount of money invested by local and national

²³ TCR is based on validated and annually updated data primarily from D&B UK. Unlike the national data sets usually relied upon by councils, economic development units it is fully transparent at local levels of geographic and activity detail.

What is the Night-Time Economy?

government in supporting the retail industry, through extensive city centre cleansing programmes, daytime transport provision and public realm design, the NTE has traditionally lost out.

This is now changing in the UK.

Much of our UK methodology has been adapted to Australian circumstances and is used as the basis of measuring the benefits of the Sydney NTE (This is set out in more detail in subsequent sections).

5 Defining the Sydney NTE

5.1 Introduction

The composition of each Night Time Economy is different.

We illustrate this in section 7.2.3 of the report where we show the broad make up of the City of Sydney LGA NTE area compared with two geographies in London with which it might be expected to have common features. The selected geographies from our UK Night Mix analysis 2009 are Westminster (which contains London Theatre land and Soho and the City which is the famous Square Mile heart of London financial institutions. In comparison we must remember the danger of reading too much for policy development purposes since each place has a unique footprint whatever the similarities.

Below are the initial comments that our client made in its brief about the definition of the Sydney NTE.

As Australia's largest city, Sydney has a vibrant and active night-time economy offering a multitude of evening, night-time and late night options. Commercial activities in the night time economy include (but are not limited to) restaurants, cultural institutions, small bars, theatres, night clubs, pubs, retail, street buskers, take away food shops, taxis, live music, harbour cruises, party buses, tattoo parlours, accommodation, hairdressers, walking tours, casinos, gyms, brothels, global stock markets, service industries, art galleries, night markets, supermarkets, convenience stores and many other activities...

This is a highly specific identification of Sydney activities, which we seek to represent in our methodology, but in our view we should apply a standard definition to the measurement of the NTE.

This helps in two key respects

1. Where comparison is felt to be an important aspect of evaluation or assessment we will know that we are comparing 'like with like' (or at least 'very similar with very similar')²⁴
2. A subject of major interest is how the relative importance of specific aspects of an NTE is change over time. Again it is important to have standard definitions. In this context for example there is a policy interest in the extent to which food provision is growing in relation to drinks only establishments but beyond the liquor agenda it is also important to see the potential that exists for helping to grow and encourage an NTE in particular directions e.g. culture, a broader demographic, as well as locations in which new NTEs might be developed that are appropriate to their setting

Therefore a key facet of our Night Mix Index²⁵ approach is to use standard descriptions of activities that can be converted and used across international boundaries. This works well where there is a publicly accepted system of business classification type based upon a common typography.

- In the case of this research the team has converted and matched 5 digit UKSIC²⁶ codes to 4 digit ANZIC²⁷ codes. The conversion enables both the comparison and the capturing of the subject activities to include the ones mentioned in the client brief.

²⁴ Use of language to define similar activities does not always pass clearly across international boundaries and therefore we have to be careful to ensure that this accurate.

²⁵ Night Mix Index is jointly owned and published by TBR and MAKE Associates

²⁶ United Kingdom government equivalent of ANZICS

²⁷ Australia and New Zealand Industrial Classifications used by the Australian Bureau of Statistics and Statistics New Zealand

- Our limited use of Dun & Bradstreet data in this work required us to convert from USSIC²⁸ to the Australian format.

In studying the detailed breakdown of NTE activities for Sydney LGA in Section 8 of this report it should be seen that all the cited aspects of the clients definitions have been collected and in some cases expanded but only in so far as they conform to the international classification we have developed.

Finally we employ a distinction in the use of data between what we describe as

- Core NTE activities
- Non Core activities.

This distinction is useful in focussing on those activities which provide direct service to members of the public and account for the fact that people are in this space between the defined night time hours. We describe these as Core Activities.

Equally, the night-time economy could not function without a wide range of services that make it possible for members of the public to take advantage of the *core* provision. To date we have also felt it most sensible to accommodate *retail* in *non-core*, particularly in Sydney where it remains in a nascent state (opposed say to Spanish, South American or Asia cities). These activities include transport and accommodation and to date we have felt it most sensible to accommodate retail in Non Core activities.

Whilst some retail activities align with the view that the NTE is primarily a place where alcohol is consumed or acquired a wider economic view sees retail as a large sector that is only marginally engaged with the night time economy in most large cities.

The opportunity to engage retail trading on a wider basis is a source of continuous dialogue between those who see the benefit of extended hours and those who are not sure that the benefits are justified by the costs of opening later (there is a current pilot in the UK to shift opening hours from 9am to 5.30pm to, possibly, 11pm to 8pm). But it remains our view that unless there is more continuous post 6pm retailing that it is difficult to justify counting retail in core activities (even if some very small segments of the retail market, such as liquor stores or tattoo parlours, perform significant trade post 6pm).

There is no doubt that there are successful examples of retail models which greatly assist the widest possible development of the NTE but for the moment these are principally one off events.

The overriding distinction between most retailing and core NTE services is that NTE firms have a business model that is centred on opening at night to deliver return which makes it sustainable. Retail sees the post 6 p.m. opportunity as marginal at the most except during times of increased demand such as the Festive holiday seasons (even if in certain locations e.g. central London and Liverpool up to 20% of trade is delivered post 5.30pm)

We have examined this view and broadly accept it but widen the commentary to explain how, below, we consider that the definitions might be modified and how views of connections with both tourism and culture can be encompassed without rendering the idea of the NTE economy over complicated.

(See Section 11)

We address the paradox of cost in an economic study since even necessary regulation and service provision creates employment that would not exist without the economic activity.

We explain how we intend to deal with the paradox in this work and present an accounting of costs and benefits at the scale of the Sydney City Council accounting of its operational revenues and expenditures.

Below we set out detailed aspects of definition which impact upon the measurement of the size and context of the NTE in the life of the city.

²⁸ United States Standard Industrial Classification

5.1.1 Time

The Night Time Economy is said to exist in some time-based context, which is generally accepted as being between 6 p.m. at night and 6 a.m. in the morning. Whilst this distinction is useful to researchers it is, of course of limited value.

There are very few statistics that exist anywhere in the world which help us to understand much about the NTE without setting common sense rules that are accepted by all parties as sensible qualifications since absolutely distinctive measurements are not available.

There is no avoiding the fact that the activity of the NTE is as described in the acronym – night time.

However its tentacles stretch across 24-hour time frames. In some direct and indirect respects the NTE is indivisible from the 24-hour economy. There are all sorts of ways in which its existence would be challenged if we did not have 24-hour services. These range from the accommodation that is provided by people who generally work through businesses conducting most of their service provision in daytime and evening time to electricity services which if reduced at night would cause serious damage to NTE products and management.

Most owners of NTE businesses will visit their accountants or other service providers during daytime hours. Banks are generally not available to offer loans between the hours of 6 p.m. and 6 a.m.

In many respects the NTE exhibits that remarkable capacity of the human organism at work to provide satisfactory services when a great deal of the normal infra structure has simply gone to bed.

In other ways the NTE is not simply as it sounds.

There is quite definitely an evening economy that ends around 9 to 10 p.m. at night and a late evening economy that shuts down around midnight when most services except taxis and public emergency and control activities are closed down. From that point on the night is left to a very few citizens²⁹ and although public policy may seek to develop the NTE it is largely thinking about these first six hours. The rest of the night are left to people with probably more appetite than sense and it may be from here that the NTE derives its poor reputation in some quarters.

We can see from the people movement and purpose statistics in 8.4 below that not much is happening after 12 p.m. at night in terms of the main services that are provided by the NTE.

During those early morning hours there are individuals working in corporate environments that need to keep in touch with a global client base when it is normally awake and respected servants of our everyday lives such as bakers who deliver those attractive early morning smells by working during hours that we would find difficult even under circumstances of war.

We capture and explain some of this activity through the survey data we have commissioned from the Bureau of Transport Research Office where we are looking at both modes of transport and reasons for travel by every hour of the day and by Weekend and Weekday summaries (See section 8.4 below)

In the last analysis the time based nature of the NTE renders it most difficult to measure and analyse but since its opponents or critical friends wish to explain its shortcomings it is extremely important in this study that we set out a reasonably acceptable view of its size and impact across the economy – whatever the challenges we face in so doing.

We affirm our belief that the time span 6pm to 6am is as practical as any and suggest that it should always be employed as the default standard in NTE economic studies.

Also we point out that whilst suggestions to curtail the time frame of NTE activity may mitigate levels and types of anti social behaviour and criminal activity that our main task is to measure the size and potential of the NTE.

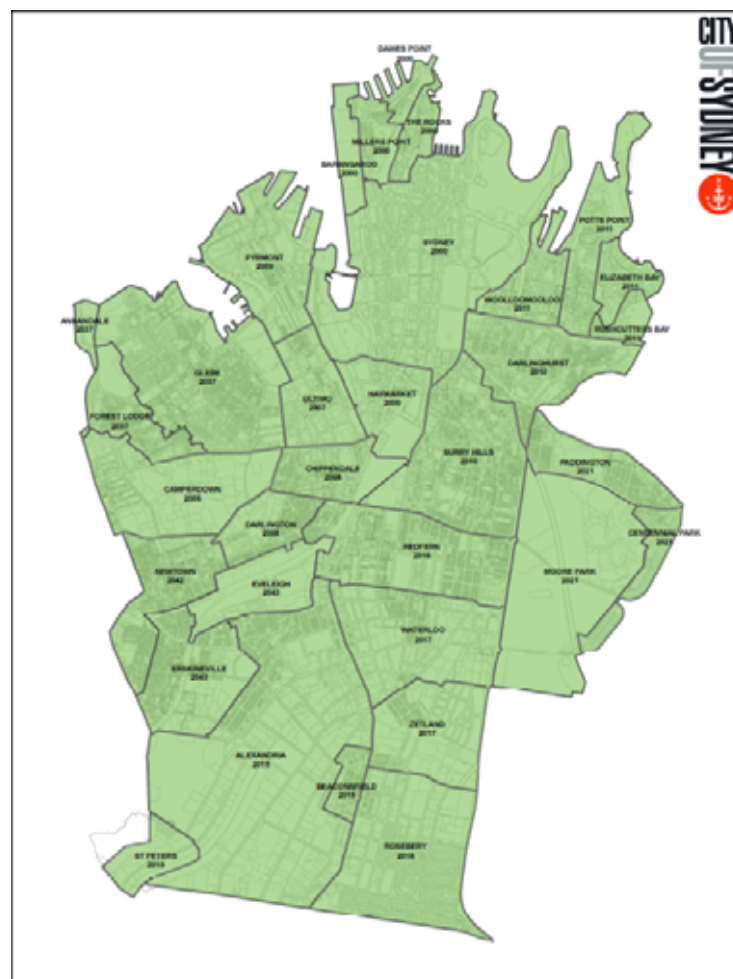
²⁹ See detailed findings of NSW Bureau of Transport Statistics

Without entering the debate we point out that from an economics standpoint we feel certain that the NTE economy will always seek to optimise its time at work in the same way that day time businesses always seek to minimise the time and labour that they need to apply to a given output. The key economic drivers of a private business relate to sales that justify continued service provision or eventually the business modifies its behaviour or closes down.

We recognise that studies show that earlier closure of the drink related activities of the NTE seem to produce lower levels of crime at given hourly intervals but we question whether this pattern of behaviour would eventually change and adjust to different operating patterns or even move to other locales and behaviour theatres to practise its activities.

5.1.2 Geography

This study looks at the Sydney LGA geography as its core subject area.



This is the area managed by the Sydney City Council. It consists of the postal geographies shown on the map above. It has four recognised centres of NTE activity and they are

- The Rocks
- George Street
- Kings Cross
- Oxford Street

We have analysed NTE activity in this geography and compared the levels of activity with other economic activity in the area to provide an overall picture of the relative economic impact of the NTE.

The City of Sydney itself covers a fairly small area comprising the central business district and its neighbouring inner-city suburbs as per the map above.

Sydney's central business district (CBD) extends southwards for about 3 kilometres (2 mi) from Sydney Cove to the area around Central station. The Sydney CBD is bounded on the east side by a chain of parkland, and the west by Darling Harbour, a tourist and nightlife precinct.

We have placed the LGA geography and activity in the context of a second larger geography that is Statistical Sydney or Metropolitan or Greater Sydney³⁰. This larger geography is the one that most people think of when they consider the city with its nearly 5 million inhabitants.

The extensive area covered by urban Sydney is formally divided into 649 suburbs (for addressing and postal purposes), and administered as 40 local government areas. There is no metropolitan-wide government, but the government of New South Wales and its agencies has extensive responsibilities in providing metropolitan services.

We have also looked at New South Wales in its entirety from the standpoint of NTE and non NTE distribution and levels of business activity in 2009.

Whilst our primary measurements in the study focus upon the LGA geography we place those measurements of NTE and total LGA economy in the context of the larger geographical areas using exactly the same data sources and definitions.

We provide an overall NSW view of the NTE as a dynamic in the economy of the state.

This helps us to understand in what respects the LGA is a primary and leading dynamic in NTE terms and how its activity make up differs from NTE in the rest of NSW.

5.1.3 Data Compatibility

It was the explicit direction of our client – Sydney City Council - that this work should be both conservative and defensible in its calculations and assessments.

Our initial investigation established that measurement at the LGA level enables broad comparison with two other data sets that both collect and report on performance at this level of geography.

We had hoped that available data would allow us to investigate the specific differences between the main reported centres of NTE activity within the LGA but this degree of level of analysis is not possible because of the way in which the local centres cross post code lines. This does not rule out the possibility of comparative analysis within the LGA but it would not accord with the defensible requirements laid down for this first study of the Sydney NTE without additional primary research.

Also we are conscious of the need to place data that reports the cost elements of the NTE within the same geographical context and early research into available cost data made it clear that again the Sydney LGA level of evaluation is the most appropriate.

We attest to the usefulness of the data provided by the city in the form of its regular 5 yearly survey of all business activity located within the spatial dimensions of its existing buildings (The FES Survey).

The FES is particularly useful since the City take the trouble of precisely locating the activities and recording them in a data base that can be brought into 3 dimensional perspectives and which most importantly from our standpoint, flags the activities with four digit ANZIC codes.

³⁰ See ABS definition

The precise relevance of the FES findings is discussed in the methodological section 6 below and in the context of the outputs of the research in sections 7 and 8.

However it is felt that in order to achieve the most rigorous recent perspective of the NTE and the whole economy in the LGA it is necessary to use data that has other characteristics. Amongst these characteristics are

- More recent measurement time frames than the FES which was last conducted in 2006 (The 2011/12 update is not available in the time frame of our study)
- Data that allows homogeneous comparison across the LGA and wider relevant geographies such as Statistical Sydney and NSW
- Data that provides a relevant perspective on the sales/turnover value of NTE businesses/activities
- Data that can be compared with the FES to permit the construction of a related time line which allows self updating once the initial comparison has been assessed for compatibility
- Data that gives added assurance that business activity in the LGA has been examined without reference to any specific requirements of the Council and which fully reflects the likely composition of all business activity

Cost elements of the analysis are connected to the benefits through a different method of data collection that is explained below and reflected in the results in the sections 7.2 Benefits and 7.3 Costs below.

5.1.4 Capital Expenditure

Although we recognise that capital expenditure costs play a significant part in the infrastructure provision that allows the Night Time economy to function we have largely ignored these costs for the purposes of this study.

Our reasoning is straightforward. Where it can be clearly identified that an issue relating to the NTE prompts explicit capital expenditure we would report this item. However most infrastructure provision was not so prompted and would continue to be available for the use of the City whether there is an NTE or not. The businesses in the NTE pay a range of charges³¹, which are levied in recognition of their impact on the infrastructure and their need to contribute to a wider community agenda. An example of a directly related item of capital expenditure might be the purchase of new CCTV equipment by the City Council. Dialogue during the research process reveals that there is no direct relationship here either with the most active centre of NTE activity – Kings Cross – having by far the smallest number of CCTV installations to track street behaviour.

In all circumstances a capital expense is both a cost and a benefit since it creates secondary employment and will improve the quality of service provision on some basis. The subject may require further investigation and other references will be made to it in this study.

³¹ Including Property Taxes, Corporation Tax, GST, costs for explicit services and for the use of public transport media, Fuel taxes.

5.2 Benefits

5.2.1 Introduction

The subject of NTE benefits is primarily addressed by

- Considering the employment provision that can be directly linked to the NTE.
- Assessing the relative role which the NTE plays in the LGA economy
- Reviewing the taxes which may be generated because of the existence of NTE firms
- Commenting upon the opportunity for further NTE led growth in the Sydney economy
- Drawing out the event and cultural linkages which support the international reputation of Sydney

Beyond the points above a variety of Australian NTE employees and entrepreneurs do in turn capture income that is spent in the wider economy and the taxes generated from the individuals and the businesses are allocated and spent by government at various levels in the provision of wider services. Also we did consider using macro multipliers to give a wider view of the impact of the NTE.

However we would need to create a specific multiplier based upon the interactions of the NTE economy and this is a considerable exercise with little material advantage since 'black box' economics is widely regarded as suspicious by most people and the wider impact could not be more widely demonstrated than by showing that if one includes related pipe line goods and services the NTE directly touches well over 25% of the Sydney LGA economy in terms of the related employment.

Our methodology captures an estimate of both the jobs and the revenues that are received by the operating businesses. These revenues are partly used to pay to attract the employment that is needed.

The most straightforward means of measuring benefit is by the interrogation of a relevant database that records the *annual total employment and revenue* of the companies that provide the goods and services.

Such an approach avoids the complication of assessing what part of the benefit is driven by tourism or what part is stimulated by event creation and activities across a wide range of subjects. Of course the contribution of, say, tourism is a legitimate subject but whilst such activities form part of the catalyst which stimulates a growing NTE any revenues and employment created are captured within the businesses and organisations that ensure that the activity takes place.

Therefore whatever the origin of the revenue or employment we measure it at the point of collection.

This would be completely true if it were the case that databases exist which is adequate to the task!

In reality all data bases whether managed within the public or private sector are subject to the frailties of the systems and rules within which they operate and the competencies and resources which statisticians can bring to measurement based upon budgeted resources to ensure detailed accuracy and continuous measurement.

Within our experience no such databases exist and consequently policy in the private and public sector is prey to the adjustments and interpretations which arise from the need on the one hand to manage and sustain public confidence and on the other by the expertise of specialised individuals who will model what is not immediately obvious because there is missing data at some level or in some time frame.

Our client asked us in this study to respond to criteria of defensible and sustainable. To this end we were immediately impressed by the comprehensive nature of the city's five-yearly system of data collection (The FES) employed to understand its developing spatial needs However as already stated there are a number of reasons for not relying on one database and this is particularly so when it does not collect all the required information.

In the early part of this study process we considered a number of databases that might help us achieve aspects of key measurement. A noticeable difference in response from suppliers was the protective nature of the public sector response and the more pragmatic approach of private sector providers.

Neither response made the work any easier but we would like to thank the people involved in the provision of the three data sets about LGA Sydney that we ultimately decided to use in the study.

The three databases that we have used are.

- **The Floor Space and Employment Survey or FES conducted by Sydney City Council**

This database had immediate attraction to us since it sets out to contact every business operating in LGA commercial space and it identifies each business by ANZIC Code, by precise location and by employee numbers at the time of the survey. THE FES Survey takes 6 months to complete.

We would expect the FES data to provide us with accurate information about the nature and size of employment at the time of the survey. The FES also allows us to apply our definitions of NTE activity and to distinguish between NTE and non-NTE businesses.

However the fact that the survey was conducted in 2006 and that it has no revenue information means that we could not rely upon it for the overall view of NTE activity that the client requires.

That said, it is worth noting that the FES process is repeated in 2011 and therefore analysis not just of city spatial change, but change within the NTE can easily be seen as potential and useful outcome of that process; hence its attraction beyond its immediate use to our analysis.

- **Firm level data from the Australian Bureau of Statistics**

The Australian Bureau of Statistics (ABS) collects continuous information from the Australian Tax Office (ATO) on the reported annual performance of Australian business entities. These statistics are aggregated and published on the ABS website at a broad sector level (e.g. agriculture, public sector, manufacturing etc.) which is not detailed enough for our purposes.

ABS uses the same statistical definition of an activity as FES – The ANZIC so we anticipated that there may be some useful ‘triangulation’ between sources if we could get beyond the top level figures.

Our initial problems with the ABS data surrounded the fact that the Bureau felt unable to deliver statistics to us for the LGA that reported below 1 digit level of activity. The one digit level would not disclose anything useful about NTE activity performance since this is reported only to its fullest extent at 4-digit level e.g. the distinction between Cafes and Restaurants (Code 4511) and Takeaway Food services (code 4512) is not shown at 1 digit level.

The reasons for this difficulty lie in the legal requirements under which ABS is able to share its data. It cannot disclose the activities of one firm and therefore it draws a protective net around the data

Lengthy negotiations with ABS resulted in agreement to display data at 3 and 4 digit levels with some exceptions that would not affect the clarity of our reporting. We were also able to agree that banded employment level cohort data could be supplied which would give us a confirmatory comparison with FES of the structure of employment within the NTE and therefore the sizes bands as well as numbers of firms operating in the LGA. Further this cohort banding came with related banding of turnover levels of NTE businesses and with the opportunity to compare Sydney LGA with the larger Statistical Sydney and New South Wales on the same analytical basis.

Earlier ABS data also gave us the possibility of bringing forwards the reported results of performance to the latest possible year at the time of the research process which was 2009.

As with all data nothing comes without strings or codicils. In this case ABS was concerned about the use of its 2006 data in relation to 2007 and later years. This is because between 2006 and 2007 ABS changed the sourcing basis of its information and has not verified the extent to which the two years can be compared at low levels of detailed activity or geography.

However ABS do not have the benefit of the 2006 FES data and so we have been able to make detailed comparisons of employment structure between the two data sets and once having verified that the two reported structures of activity are in relative proximity we can apply growth factors to the data which allow us to first update FES employment to 2007 and then 2009 and to begin to study the related turnover characteristics of the 2009 data.

There was one surprise in this analysis that we will revert to in reporting the results of the work.

- **Firm level data from Dun & Bradstreet Australia**

Dun and Bradstreet Australia collects information about Australian businesses in pursuit of providing financial risk assessment services to both private and public organisations in Australia.

TBR is familiar with the structure of D & B data, as it has been used in both the USA and the UK to provide the detailed analysis of business performance that is not available from the public sector.

Nevertheless we had not used the Australian data before and there are always local protocols that will create differences in the comparison and use of such data. This data is compatible with the two other sources of information that we have studied although it was necessary to perform a conversion from USSIC to ANZIC since D & B uses the slightly more detailed United States classification system to identify its categories of activity.

We perceived the major benefits of D & B data as providing a most recent sense check of levels of activity in terms of employment and related turnover within an identified activity. D & B records are usually more recent than public sector available data and therefore we have studied a cross section of performance that is largely financial year 2010. The findings of this data have not been used to drive the structural findings beyond 2009. Rather we have cross-examined the data sets to see if they are in generally broad alignment and tell the same or a very similar story.

Since ABS provides turnover data based upon cohort groupings i.e. between certain levels of turnover such as say, \$5million to \$10 million we are able to correlate approximate turnover and employment per activity type by studying the D & B information. This helps us be more secure in delivering a view of NTE revenue and Non NTE firms in the local economy.

Whilst we found D & B data of limited use in this study we do believe that it is capable of greater use in future once we have a better understanding of the limitations that the company places upon its collection and flagging protocols.

Another important way the D & B data contributed to this study was in confirming the picture delivered by ABS that there are a large number of 'zero employee firms' (ZEFs) in Sydney (i.e. sole traders that are not registered for GST). International research over many years affirms that it is this firm size group that contains many of the nascent businesses of the future. These businesses usually provide most of the net additional employment to local and national economies.

Such businesses will form an important component of NTE future growth and we have reported on them in Section 8.2 as a completely separate subject to the main body of the work.

5.2.2 Triangulation

Our key objective in this work is to provide a conservative and defensible view of the benefits and costs of the Night Time Economy. We wished to provide as recent a view of the NTE as is possible given current data limitations. Our decision was to triangulate these three data sets in order to arrive at a result that would meet the key client requirement.

There were weaknesses in all data sets but given the wider strategic context of this work we eventually decided to base our findings around the definitions of the NTE that we were able to agree with the Australian Bureau of Statistics.

We are grateful to the Bureau for allowing a much more detailed picture of Australian business performance than would previously have been possible such that we have been able to deliver activity benefits at a greater degree of detail than will have been previously presented.

In determining these final outputs the other two databases played an important role.

We were able to rely upon the FES for cross comparison of detailed employment performance by NTE activity at most cohort sizes of NTE business or organisation.

Dun & Bradstreet data has allowed us to achieve a broader cross correlated view of the size of the LGA Sydney NTE and in cross comparison with ABS helped us to confirm that the size of the overall economy and particularly the NTE economy is greater than might have previously been thought.

There will be recommendations in our conclusions for future research that would help Sydney to calibrate its NTE economy and the potential of the NTE economy more accurately with the benefit of further analysis of D & B data.

5.2.3 Day time / night time divide

There will always remain particular difficulties with measurement of the NTE that arise from the fact that many businesses do not simply trade by either night or by day.

For the time being we seek to address the difficulties caused by this shortcoming in available data in the following ways

- The 4 digit ANZIC definition of NTE businesses is created to exclude all organisations that have no material NTE activity content.
- We further divide NTE activity categories into core and non-core such that in core categories we only have businesses that depend upon post 6 pm activity for their viability.
- Until there is greater transparency available on proportional working between day and night time we exclude non-core activities from the reported figures that give the overall size of the NTE. It is generally the case that non-core businesses represent larger employment populations (and related sales turnover) than core businesses. Excluding non-core from reported figures does help to underline the conservative nature of the consistently reported core figures.
- The use of the 4-digit definition allows us to compare and confirm messages from different databases since we have reconciled the classification descriptors such that they apply across all databases. The cross comparison helps to identify any unusual features in data
- As experts in NTE research we have a clear understanding of broad proportionality. That is to say we know which businesses are 100% NTE and which are spread over some division of time during day and night time activity. Also we know when some business types close after 6 pm
- Dialogue with business owners has helped us to gain a better understanding of the precise night time /day time splits of activity
- Pre and post 6.00 pm footfall gives a broad understanding of the relative scale of movement as between the two time periods when taken together with the stated purposes for travel in the hourly time segments. The overall level and nature of movement around the geography helps us to gain a secondary understanding of proportionality.

Because of these provisos that are partly data precise, partly exclusion to avoid over claiming and partly reported behaviour we will capture a reasonable view of the NTE activity that represents its revenues, employment and tax proportionality.

Our conclusions in Section 9 include recommendations to arrive at more precise figures in the future but for the purposes of our initial measurement we observe the conservative requirement of the client in the stated way.

5.2.3.1 Transport Usage

We have sought a number of ways of delivering a reasonable impression of the size of the NTE. One aspect of this has been to commission hourly figures of people movement around and in and out of the LGA Sydney NTE area on a 24-hour basis and highlighting the difference between weekend and weekday movement.

Time banding is particularly useful in understanding the simple relative size of the population that is on the move in the LGA at different times of night and day. We can see how many people are active within the space of the NTE by 3 hourly time bands. This means that we can look at movement from

6pm to 9pm (early evening dining, theatre and cinema, shopping when stores are open and after-work drinking. Most people appear to be travelling home from work, after-work drinks or shopping/ Those coming into the city may be doing so for a 'late night out', but most are probably planning to return home before midnight. Particularly important at this time is the role of private vehicles for those entering the city (often used by older people and families), as well as buses and trains, with the latter two forms of transport remaining key modes of exit up until midnight).

9pm to 12pm (usually the busiest time of the city where there are most crossovers in varying user groups and where most NTE hubs of the city are busy. At this time most post-theatre dining, after dinner socialising and later evening drinking takes place. Many people are coming into entertainment zones for a late night out, while those who have enjoyed the 6 to 9pm or perhaps a little later are making their way home. There is some overlap here and it is obviously not clear-cut).

12pm to 3am (prime drinking, clubbing and gambling time, with fast food operations, public transport has almost all finished by 12pm so taxis become the main method of exit though private vehicles are still popular, particularly for those in the outer metropolitan area and walking for those who live or who are staying within the LGA is feasible).

3am to 6am (late-night clubbing, sexual entertainment and gambling and some takeaway food operations are the main operations and this is mainly concentrated in one or two hubs such as Kings Cross. Again taxis are the main way home for most, though walking remains an option.

These time bands broadly correlate to understood changes in activities and activity levels.

The New South Wales Bureau of Transport Statistics is able to provide us with figures which are split in this way and which also show us the difference between midweek and weekends.

We have commissioned data for this purpose in the research that covers an average 5-year period to 2005/6 and to 2009/10 since these time frames align with the time frames that we have established as being available for demand or benefit related data.

Using the 5-year aggregation of data helps to provide a much larger sample frame for this research and means that the figures may be relied upon within the context of the client request to be conservative and defensible.

The total and relative volume of movement will permit us further cross check any data driven views on the value of the NTE compared to the rest of the economy. This data helps us to identify the distinction between people who are on the move for employment purposes as distinct from other purposes.

We know the overall numbers of employees in the LGA; the numbers of residents in the LGA; the numbers of people who are moving in and out of the LGA that would constitute broad indications of employment movement.

We report on these movement findings and how they have helped our final views in section 8.

5.3 Costs

In a project analysis that is strictly an economic cost/benefit, there is a presumption that the costs and revenues (benefits) would be studied as dependent variables over agreed time frames in order to understand important differences in potential outcomes that could be achieved by changing these variables.

Under such an analytical regime we would look at the changes we might make to cost variables in order to achieve given revenue outputs. Or we might set a scenario benefit and then analyse the variable cost elements that would be needed to deliver that outcome.

This would involve the modelling of all variables and a regression analysis to help us single out significant variables that impact upon the likely outcome over a range of time frames.

Such an analysis is beyond the scope of our present brief which asks for a snapshot for one year of NTE economic activity across a range of identified costs and benefits.

We believe that in the future a classic cost benefit analysis should be conducted but at the moment there are so many unknown variables that we would suggest further survey type research to provide better base data on which to build such an analysis.

Such models would need to differentiate between costs and benefits accruing or being incurred at different levels of activity by the various organisations or activities involved.

For example, one might present an accounting model at the scale of the SCC by bringing together an estimate for a given year of the NTE revenues and costs that accrue to the SCC on its books. This can show whether it costs the council more or less to service the NTE than the NTE revenues it generates.

This could be done at state and even national government levels.

As we noted earlier, for the purposes of this study we are faced with the challenge of addressing 'costs' which may or may not be justifiably attributed to the NTE. They are labelled as costs because the very origins of the definition of the NTE lies in the attention paid to post-6pm economies by parties concerned primarily with the negative health, crime and anti-social behavioural outcomes of the side effects of some activities taking place at night.

These are entirely legitimate subjects for concern and certainly must be brought into the balance where a political entity such as a council or state government is considering how it may optimise the possibilities of the NTE for the future. Even from an economic perspective it is important to acknowledge that the prosperity of an international city economy such as that of Sydney depends upon the establishment of an environment that is inviting to visitors whether they come from the LGA itself, the greater metropolitan area, NSW, Australia or globally.

It must also be acknowledged that the backbone of any city economy should be the citizens and communities that inhabit the space. If they are increasingly attracted to use the city at night then the city and its businesses have the opportunity to further develop its reputation and their commercial prosperity.

However because *cost* is not simply an economic concept in this study we have been required to construct a version of costs which are less simple than economic costs and which lead to some debate about where certain aspects of the resulting figures should lie as between cost and benefit.

For example, the costs of maintaining law might justifiably be allocated on a simple pro rata basis across either side of the day or night divide (i.e. a 50/50% split say, in order to recognise the 6pm to 6am timeframe we have used as our model here.). After all, the citizens of a city do not require that their interests and safety be any less protected during the night than during the day. There are clearly attributable costs for law provision that can be identified across the night and during the day.

However, for the purposes of this study, *NTE* policing costs are not considered the same as *night-time* policing costs but rather as those costs, which can be (as reasonably as possible) directly attributed to activity, which would not happen if there were no NTE, as we have defined it here.

It is therefore a legitimate question to consider just what those NTE attributable costs might be and if they need to be put in a balance sheet of the Night Time Economy on the negative side of the equation.

What is the case for NTE specifically attributable policing costs?

The answer is that the forces of law and order might well be stretched in entirely different directions if, for the sake of argument, the NTE specific activities did not exist. Are we to imagine in those circumstances that the city would consequently require less policing or even no policing at night?

Nevertheless, we do attempt to measure the costs of NTE policing and they form part of this cost equation. Other costs that are considered under this general heading are:

- Health – including the costs of hospital emergency department services.
- City services at night – including services provided mainly by the City Council (but which may be funded from the State government)
- Public transport – which includes all public transport media (but not private services such as cars and taxis since they are funded or supported from the purchase decisions of private individuals and not by public taxation)

The case of public transport costs clearly indicates the point made about the difference between a classic cost benefit analysis and the objectives of this study, which is more akin to an audit.

For example, one finding of our study has been that public transport providers have cut back some provision after midnight and that has led to frustration in some night-time contexts over the unavailability of transport to leave a venue and return home.

However, in this case we have a service provision that provides additional employment driven by the existence of the NTE (just as is the case for the use of taxis and even private cars). So, there is a *prima facie* case for placing these jobs, and the revenue that supports them, on the benefit side of the equation. Our position in this respect is to suggest that this should be done unless:

- It is clear that the cost could be reduced by changes in the regulation of some aspect of the NTE
- Even though a cost may have public revenue support it must be on the costs side of this exercise if it is not fully funded. The net cost should always stay on this *cost* side of the equation.³²

5.3.1 Policing Costs

Introduction

As noted above, as well as earlier in the report when we discussed existing research on police staffing costs, we have already set out some of the challenges surrounding the collection and attribution of data for the cost of law and order in the NTE. Here we set out the specific data we have used to arrive at our findings in sections 7 and 8, and stress its limitations.

There are two main source of data that we have deployed in this part of the study.

A. Police staff costs

The previously quoted 2005 (published 2007) NDLERF research into short-term costs of police time spent dealing with alcohol-related crime in NSW is the most useful piece of data we have here. As noted earlier, while focusing solely on staff time, rather than wider operational or capital costs, it remains partial.

³² All public transport operates at a deficit and is hence subsidised from the public purse, as per the analyses and data from ipart.

However, it is a comprehensive study and uses a robust methodology, as well as providing wage levels that, with some updating, we have been able to use as the basis of costing officers' time for our own study and therefore we have taken it as our primary resource.

It is worth noting that the use of 'alcohol-related incidents' as a proxy for the NTE is not perfectly aligned with reality of course, as numerous incidents involving alcohol take place outside of the NTE. However, given the many areas in this section where we *underestimate* the police costs in managing and responding to the NTE, it appears reasonable to use this as a proxy given it is the most readily available source of data that closely aligns with our field of study. Using alcohol-related incidents in this way is not uncommon and work undertaken by the UK Home Office to prioritise the top 50 problem NTEs in England and Wales uses this as part of its measure.

However, we have taken a number of steps to align this study more effectively with Sydney LGA and its NTE more closely.

Firstly, the geography of NDLERF original research is state-wide, although it is then disaggregated into a number of sub-geographies, of which the Sydney LGA sits within the 'Inner Metropolitan' boundary. Therefore, we need to adjust this for Sydney's LGA NTE.

There are various ways that we might work out a reasonably accurate attribution of frontline police staff time taken up by alcohol-related incidents in Sydney LGA and specifically its NTE. However, all by their nature are partial. Finding the most representative has been our priority.

One method of attributing police time related to alcohol incidents might be to use the *spatial area* covered by Sydney's LGA as a proportion of the overall NSW or Inner Metropolitan Area footprint. However, this is problematic because although alcohol-related time spent by police *per incident* is actually *higher* in remote regional areas (where more people have complex chronic alcohol dependency issues), overall these areas are much larger and have both lower densities of population and fewer alcohol outlets.

Given that Sydney LGA is less than 1/31,000th of the land area of NSW, if we used this to divide the total figure arrived at by NDLERF in its research then it is almost certain that this would severely underestimate the time spent by police in Sydney dealing with alcohol-related incidents. While not as extreme, a similar issue would remain the case if we compared Sydney LGA as a proportion of the Greater or Inner Metropolitan areas.

Another method that we might attribute NSW Police time taken up by alcohol related incidents within the LGA is to use *population* as a proxy. Sydney LGA has approximately 177,000 residents, whereas the Greater Sydney area has around 3.6m, the Sydney Statistical Division 4.1m and NSW as a whole 7.2m. However, this is problematic because, although the LGA is the city's tourist hub and police statistics show that considerable numbers of tourists are involved in NTE / alcohol incidents requiring police time, even if we were to add tourist numbers to the resident population, this would still give us a disproportionately high number of incidents per head.³³

Therefore, while spatial and population proportionality are too crude as attributive methods, using the *number of licensed premises* (or even better their densities) as a proportion might be a more logical way to generate a reasonably accurate fraction with which we could attribute police time and alcohol-related problems.

However, this is not perfect. The LGA has a large number of licensed premises, though by no means the majority of all those in the Inner Metropolitan Area (IMA). However, it does have the highest concentrations, particularly of alcohol-led venues, within in its four entertainment hubs. So, if *hypothetically*, we said there were 250 licensed premises in the LGA (say out of 1,000 within the Inner Metropolitan Area), then by using this method we might want to assume that 25% of officer time spent dealing with alcohol-related incidents across the IMA could be attributed to the LGA.

³³ This is similar for Westminster in Central London. Its population is just over 220,000, yet it has very high levels of crime per resident. Yet this does not take into account the millions of people who use the city every day

However, we know from interviews conducted with police for our own study, that the LGA contains the main hotspots for alcohol-related crime and disorder within the NSW Police region. Therefore, it is almost certain that this hypothetical 25% would be an underestimate of the amount of alcohol-related crime and disorder taking place and the police time and costs taken to deal with it.

There are also a number of other reasons why using a fraction of the total licensed establishments might underestimate the proportion of incidents and police time within Sydney LGA.

For example, recent academic research shows that higher densities of alcohol-led venues in city centre entertainment zones (and which predominantly attract young 18-25 year old people), no matter how well they are managed internally, tend to have more problems in the public space *outside* them than more dispersed patterns of venues, such as those found in suburbs. While there are venues outside of Sydney LGA (but within the IMA) that fit this model, the LGA has a disproportionate proportion of this venue type and this is likely to skew any attempt to use licensed premises for factoring.

It is also the case that the LGA contains many very large licensed premises where capacities of 1,000 plus are not unusual. The combined capacity from a sample of 20 venues drawn randomly from within the LGA will almost certainly be higher than 20 venues taken at random in any other part of the IMA. Therefore we would also need to work out the total capacities of licensed premises both inside and outside the LGA (but within the IMA) in order to attribute using this method.

Therefore, while numbers of licences (and with further substantial work, capacities) are a better proxy for deriving a figure of the amount of police time consumed by alcohol-related activity than spatial area or population, it still remains an unsatisfactory way of factoring police time spent on alcohol-related incidents.

Therefore, the most logical proxy for this part of the study would appear to be the *number of police officers* on duty on a typical night within the Sydney - as a proportion of those across the IMA. We can then combine this with the financial data from the NDLERF study to arrive at a cost for officer time spent addressing alcohol related incidents, and which can be updated to reflect 2009/10 wage increases and to take into account that the original study covered 24hrs not just the NTE (see below).

There remain issues even with this approach. For example, it may be that more or less officers are now involved in the policing of alcohol-related crime than or that they are spending more or less time per officer on alcohol-related issues.³⁴

A further complication was that the study only disaggregated data based on officers' shift *starting* times: before 1pm and after 1pm, rather than hours that more closely resemble 'daytime' and 'night-time' as per our 6pm to 6am definition. However, as the study notes, most officers who start after 1pm do not typically start until 4 or 6pm, so while it's not an exact match, by using the figures for post-1pm starts, it is likely to be very close to an ideal proxy for those officers working in the NTE. It is certainly as close as we can get without undertaking the study again.

B. Other police costs

In addition to supplying numbers of officers deployed to police the LGA NTE, the other source of data provided by NSW Police was on the overall operating costs of the service. We have sought to use crude factoring based on the fraction of NSW Police time spent on Sydney LGA's NTE, as noted above, multiplied by the total operational costs for the force in 2009/10. So, purely as an example, if the number of frontline staff officer hours spent on the NTE in the LGA was 10%, then we would suggest that 10% of the overall budget of the force could be attributed to policing the NTE.

³⁴ Our interview research with NSW Police suggests that over the past five years *more* officer time (as has been the trend in the UK) is being spent policing the city at night, so therefore relying on this study will lead to an underestimation.

Other costs include: non-frontline employees; other operating expenses; depreciation and amortisation on assets such as buildings and equipment; grants and subsidies; finance costs; and other (non-operating) expenses.

Clearly, this factoring of total expenditure is necessarily less accurate than the costs attributed to the staffing of the NTE due to the budgetary scale and range of costs and for errors or assumptions to be magnified as this total increases.

There is also the strong possibility that demands on police resources may be less or greater than incidents in or arising from the NTE. For example, murder and manslaughter enquiries not only demand more frontline police officer time, but disproportionate amounts of back office time, forensics, and other limited internal resources than less serious crimes. Yet because these incidents are few in number, they require very little in the way of, for example, cell space or interview rooms. However, the amount of physical space required to process those arrested for typical NTE offences is much higher because there are so many more of these incidents each year.

However, given the amount of resources available to us, this approximation is the best fit we are able to establish within the scope of this study.

Exclusions

There are a number of exclusions (mainly costs rather than benefits), which we have not been able to calculate due to the data being unavailable or the time required being substantially outside the scope of this study. This contributes to a general assumption that our figures are very conservative and underestimate the overall costs of policing the NTE.

Non-alcohol-related NTE incidents

By its very nature, the NDLERF study does not measure *non-alcohol-related* offences or incidents that typically occur after dark and which might reasonably be associated with the existence of an NTE. This includes activity such as the sale of drugs or drug-related violence or damage, as well as harassment / hate crime, and crimes that go unreported.

While it is not possible within this study to take this line of enquiry any further, it is likely that the majority of incidents attended to by officers who came on post-1pm to a beat within Sydney's LGA will involve alcohol having been consumed either by the perpetrators or victims. Estimates from sources in both Australia and the UK suggest that at least half, sometimes up to three-quarters, of perpetrators of violence will be intoxicated to some degree. And even these figures are likely to be an underestimate because the data for them is based on alcohol-fuelled incidents *throughout* the day (not just at night when rates of intoxication are likely to be higher). It is almost certainly the case that alcohol as a factor in a crime or an incident requiring the police is substantially under recorded by police officers.

Indeed, as we noted earlier, the NDLERF study also acknowledges that police officers, due to the time required in filling out the study forms, probably underreported the amount of alcohol incidents they were involved in addressing.

Policing Income There is currently no available data on any income the police receive for policing events within the NTE of Sydney LGA, which might offset the costs. However, given that NSW Police receives only 1% of its income from charging for services this is likely to be a marginal issue and will not reflect the overall accuracy of our figures.

Justice We sought to identify the possible justice costs of processing those NTE related incidents through the courts, correctional facilities and rehabilitation programmes. However, within the timeframe and the resources of the study, this was not possible and the data is simply not available in Australia to the same level as it is in the UK. This would require a comprehensive study of its own and may be something that the State, various interested parties or academic institutions should consider undertaking. It would of course need to offset the costs of courts, judges, lawyers, juries, probation, and correctional facilities with the income from fines received, albeit this will be substantially lower.

Other externalities There is a range of other externalities that we have not considered, but which are arguably attributable to the negative outcomes of the NTE. For example, lost days at work and personal income due to involvement in an alcohol-related incident or lost productivity due to absence from work whilst in court proceedings or serving a penal sentence. However, these are beyond the scope of this study and remain contentious, with those from the alcohol and entertainment industry saying these are personal not societal dis-benefits and often those from alcohol-reduction charities, many academics and police and health saying that they should be considered as they are a direct result of people's behaviour within an NTE.

5.3.2 Health Costs

Introduction

There are many dimensions to health costs that must be understood before we proceed to present the findings. In many senses with health, what is omitted is as important as what is included. There are some similarities between health and police, but not across the board.

Sources of data

The data basis for our calculations is threefold:

Firstly, and most importantly, we use the robust report produced by BOSCAR, *'Costing Alcohol-Related Injuries Presenting to St Vincent's Hospital Emergency Department'*, highlighted earlier in our study.

Although undertaken in 2005, it remains a cornerstone because it provides more in-depth data than that collected currently by NSW Health. It goes down to the hospital level and is specific to alcohol-related injuries and intoxication presentations (although we highlight below why this is an imperfect proxy for the health costs of the NTE).

Secondly, we have information from individual hospitals about their current and recent admission rates which we use as well as interviews with personnel from these institutions.

Thirdly, we have information on overall rates of alcohol admissions and some costs from NSW Health.

Below we walk through the methodology adopted here and in particular highlight where our approach probably includes / excludes costs that are not / are relevant NTE. This gives us a feel at the end of this section for, whether on balance our best-fit method is likely to over or underestimate the NTE related costs to the city's health service.

Applying the data to other hospitals

Within Sydney LGA there are a number of public and private hospitals. The hospital closest to the city's main NTE hub in Kings Cross is St Vincent's, which as well as serving the LGA also covers eastern central Sydney although not the full range of the eastern suburbs as these are normally covered by The Prince of Wales Hospital, which is not within the LGA.

However, the LGA has two other hospitals with emergency departments (EDs): Sydney Hospital and the Royal Prince Alfred (RPA). There are also a number of private hospitals that may receive patients at some stage who have been involved in an alcohol-related incident within the LGA NTE. However, these are not included in our analysis as their contribution is extremely minor.

Sydney Hospital ED is very much a small and rudimentary emergency department and not a first point of destination for the city's paramedics. It is for this reason that we have not sought data on this hospital.

The RPA however, is very different. It has higher levels of ED admissions (51,000 in 2010) than even St Vincent's (42,000 in 2010), but has more child admissions (9,000) and it serves a wider catchment to the west of the LGA and beyond.

Therefore, for the purpose of our study we feel it is reasonable to use these two main hospital EDs as the main sources of NTE cost data. Clearly there may be occasions when people who have received drug or

alcohol-related injuries or intoxication within the city centre make their way, through whatever means, to hospitals outside the LGA, but evidence from interviews suggest this will be very small and therefore would not benefit from analysis within the overall constraints of the budget.

Obviously, there are going to be patients treated by these two EDs who have not been in the LGA (day or night) at the time of an alcohol-related injury or intoxication (i.e. they have been brought in from outside). This is one area where there may be some overestimate of the health costs of the NTE. However, these inclusions and exclusions are noted below.

What is not included; what is included?

The statistics given in sections 7 and 8 are by their very nature, as we alluded to earlier in the report when we outlined the BOSCAR research, partial. This is for a number of logical reasons, which could not be overcome either within this study's budget and timeframe, or where simply data was not available, regardless of the available resources.

Night vs. day

Firstly, the BOSCAR study does not separate out incidents recorded between night and day. Anecdotal interview evidence suggests that the majority of incidents involving alcohol will happen at night, however, because there are no reliable estimates within the BOSCAR study, nor in any other it is not possible to use these as a reasonably robust proxy. There are lots of useful statistics around that tell us what proportion of ED admissions are alcohol related, but they do not divide those between day and night (e.g. one study in the UK put 70% of admissions between 12am and 5am as alcohol-related³⁵).

Clearly this means that for both hospitals the figures we are using will be an *overestimate* of the number of admissions at their respective EDs. However, this is unlikely to skew the statistics hugely because anecdotal evidence suggests that the vast majority of alcohol-related admissions do take place post-6pm (mostly between 9pm and 3am).

Not just NTE

Linked to the issue above, it must be stressed that those alcohol-related admissions that do take place at night are not all linked to the LGA NTE as we understand it for this study, i.e. 6pm to 6am and based on the core activities set out in the 'Benefits' section earlier in this report.

The figures will include those brought in from house parties, fights or accidents from the outer lying neighbourhoods and suburbs.

There is no reliable record within the data held that could tell us whether the individual has come from what we might term the NTE, or 'other' locations or activities.

This is likely to *overestimate* the numbers of NTE related admissions to the EDs.

Not just alcohol

Another crucial issue is that while the study undertaken by BOSCAR is by far the most comprehensive piece of work that we have access to, by its own terms of reference, it is related to alcohol admissions.

While the interview research confirms that the majority of admissions in the NTE are alcohol-related (and as the study quoted above reinforces), our interview research also suggests that there are admissions to EDs that are linked to the NTE but which do not involve alcohol.

For example, there certainly is drug and 'polydrug' use within Australian society, within Sydney and within the NTE. However, while drug use may well exacerbate problems e.g. cocaethylene poisoning, and

cocaine or amphetamines are known to provoke and fuel more violent crimes and more serious injury outcomes, anecdotally the number of incidents remains much, much lower than those admissions where alcohol has been the main or only contributory factor.

There are currently no figures for either hospital ED for presentations solely or primarily drug related.

Therefore, this reliance on alcohol-related statistics alone, though workable, is likely to moderately *underestimate* the number of LGA NTE-related admissions.

What comes follows?

One area where there is no apparent data is on the cost of the alcohol-related 'patient journey'. Not even the St Vincent's study, which is very comprehensive, had within its terms of reference the objective of assessing this. By 'patient journey' we mean the treatment cost that somebody who has been involved in an alcohol-related incident (be it an injury or intoxication) and are taken to the ED by ambulance (or enter under their own means) accumulates until they are fully recovered.

We know some patients are discharged or self-discharge and leave the hospital, e.g. go home, but what is the cost to them of an injury that no study can really account for? Does it need more return visits to hospital that are not then factored into the costs of alcohol-related admissions? Does an injury require surgery because a bone was not set correctly or many similar possible ongoing costs?

Then there are those ED presentations that are referred into intensive care units (ICU) or released to recover on general wards. These patients may need further surgery over and above the surgery that may have been performed in the ED to save a life or fix a broken limb or macro facial surgery for a glass wound. There is also the considerable cost of providing a bed, food and care of these individuals.

We know that the cost in the UK for a serious Macro facial injury sustained from a broken bottle or glass in a pub or club can typically be £170,000 (though this includes police, legal and justice system time as well as ED surgery, remedial surgery and rehabilitation). Clearly these are relatively rare incidents but the medicalised element of this 'patient journey' would cost a lot more than the average staff-time cost set out by the BOCSAR study (around \$250 per incident – see section 7 and 8)

Therefore, the impact of only considering ED staff costs is likely to be a huge *underestimate* of the cost to the health service of those NTE cases that have been referred with serious conditions.

Indeed, the ED cost is probably only the 'tip of the iceberg'.

Chronic alcohol illness

What impact on health costs does excessive consumption of alcohol within the NTE over a period of time and which do not require immediate hospitalisation for either alcohol-related injuries or intoxication?

There is very little evidence in the is area because it is so hard to separate alcohol consumed in the NTE situations from that consumed in other life situations and which may contribute to alcohol-related diseases.

However, there can be little doubt that there is a long-term health cost generated by individuals consuming excessively within the NTE. There is increasing evidence, in both Australia and the UK, that chronic alcohol misuse is not just affecting those typically considered 'alcoholics' or what might be termed 'dependent' drinkers. Cirrhosis, raised blood pressure and heart conditions are now increasingly being found in younger citizens (in their 20s and 30s) in both countries. These are fully functioning individuals during the week, holding down employment or attending education, but who at weekends are 'bingeing' (itself a contested term) to such an extent that they are not just putting themselves at immediate risk of hospitalisation, but of longer-term damage.

More research needs to be performed on this globally and there is certainly no evidence from within Sydney or NSW that would help us measure the impact of Sydney's (or any other) NTE on long-term

negative health outcomes. However, this certainly must contribute to the *underestimate* column of our data to measure the health costs within Sydney's NTE.

Capital costs and operational cost

Finally, and probably the largest *underestimate* within the costs section, is the negative impact of NTE-related admissions on the *capital* and *operational* costs of the two Sydney hospitals. This covers the EDs, where the most direct impacts are felt, but also the recovery and longer term alcohol-related disease care which will affect general wards, outpatients, physiotherapy and surgery theatres where reconstructive and remedial surgeries will be undertaken.

There is simply no adequate data, like that which we have for the NSW Police service, which will allow us to make a reasonable attribution of the NTE against the variable and fixed costs of operating the health service at these two hospitals. However, if we consider even a small share of the buildings, maintenance, utilities, staff (in addition to the ED teams e.g. general staff, administration management), theatres, beds and bedding, equipment, IT and so on, it becomes clear that even if NTE negative externalities are only 1% of that budget, the impact will be *considerably* larger than the ED staff time ring fenced within the BOCSAR study and our use of it here.

The question remains, would these hospitals be needed without the NTE and the answer of course is yes, Perhaps a better question is, would the EDs still be here? And of the answer to this is also yes. However, for the latter, a large proportion of their business (perhaps their main business) is NTE-related. And so while it is beyond the scope of this study, attributing these costs would be a useful future research project in order to get a firmer grip on what is a much larger total than we have been able to robustly measure within this study.

On balance?

On balance the figures we have used (which concentrate on alcohol related admission the city's two main EDs), while having some overestimates within them are hugely outweighed by those costs that we have not been able to compute.

However, no matter how partial our costs are, they do, in sections 7 and 8, provide a reasonable benchmark that can be used in future to measure and re-measure the most visible negative externalities of behaviour around the LGA NTE. And in turn, benchmark progress on the city's 20-year vision.

5.3.3 Transport Costs

Inhabitants, visitors and workers in the Sydney LGA economy use a wide variety of transport media to get around the city and in and out of the LGA. As part of our cost appraisal we identified transport as a key aspect of the study that needs to be examined.

In the Data Framework we stated that the travel survey will be used to help understand the proportions of journeys into and out of the LGA (and within) area by mode, purpose and time of day and in turn to use this as a divisor for the proportion of the costs of each aspect that can be attributed to the NTE.

To help with this appraisal we commissioned the NSW Bureau of Transport Statistics to provide statistics which give appropriate proportionality to day time and night time figures and which distinguish between average weekdays and average weekend days.

The NSW Bureau of Transport Statistics identifies the transport media as

- Private Transport (including the passengers that are carried)
- Train
- Bus
- Ferry

- Taxi

and means of self propulsion – which comprise walking and cycling.

In assessing the part of transport costs that might be attributed to the NTE we ignore these last two modes of travel although it should be noted that in 2009 walking accounted for nearly 75% of all recorded movements within the City whilst Cycling accounted for only 1% of the c740,000 daily trips during weekdays and 78% of all 974,000 average daily movements at weekend (cycling 1%).

The equivalent walking and cycling figures for people coming into the LGA are 3% and 1% respectively whether for weekdays or weekends.

Assessing the Transport Costs

It is this larger sub set of people who travel in and out of the LGA in various time modes who represent a potential cost which could be apportioned to the LGA but before we discuss how we have dealt with this subject a few more figures about the broad movements of these groups and particularly the split of percentage movements between 6 a.m. to 6 p.m and the post 6 p.m. movements.

Trips into Sydney

Dealing firstly with trips into Sydney during 2009 the breakdown is as follows.

Weekday Day time – 86% of all trips by all media - whilst night time is 14%

Weekday Night time – 80% of all trips by all media – whilst night time is 20%

Please note that most of the night time trips are not for social purposes

Social Travel

Of these trips in week time days the average of all trips taken for social purposes into Sydney LGA is c4%. We cannot assume that all these trips will be to participate in the NTE but that does give us a top line figure and indicates as we suggest in our recommendations that increasing trips into Sydney should be a main aspect of focus in developing the NTE strategic agenda.

The equivalent number for weekend social trips is c10% of all trips on an average weekend day. Again we cannot assume that all these trips are NTE related and they simply provide a top picture at this point.

Trips out of Sydney

We are concerned to have some view of trips out of Sydney since post 6 p.m. departures do use the public transport system and may be departing users of the NTE. Here the figures do not offer such a straightforward picture as inward movement because although aspects of the transport system will carry departing late night visitors from the NTE the busiest period is between 6 p.m. and 9 p.m. Many of these people may have been working late at the office.

To test the statistical relationship we might postulate that one way or another all those people who have come in to the LGA from 6.p.m represent the maximum number that might need to be carried out again at a later hour. Clearly this is oversimplified but if we take a lower number we only reduce NTE impact.

If we look at one set of statistics as proxy for the others we have a picture such as that below

Daily average trips into Sydney LGA after 6 p.m on average weekdays

Total c83,000

Daily average trips out of Sydney in the same time frames

Total c150,000

The pattern is similar but the numbers are closer at weekends. It does make the point that a large proportion of the outward travellers must have been in LGA Sydney for work purposes although a proportion of them may have taken time out in the NTE.

The broad picture we have is that many more people flow out of Sydney after 6 p.m. than flow in and we suggest that for NTE cost calculation purposes these trips would have taken place in all events since they are workers returning home.

These figures merit greater consideration but for the purposes of this study we are intent upon obtaining a reasonable basis of attribution of the total public transport costs that might be ascribed to the NTE.

The highest proportion that this could be, we would suggest, is 10% and we use this figure in reporting the cost calculation in Sections 7 and 8 below. Certainly the proportion of incomers at weekends is no more than 10% for social purposes and since total travellers out at peak weekends after 6 p.m. represent only 15% of all daily outgoing travellers we believe that this is more than conservative.

Over half of this 15% travel by private media. Therefore it might be that an even more conservative figure would be 7.5% of all Transport Costs but we do have an additional factor to take into account when assessing attributable cost for this study purpose.

All these key transport costs are covered by the revenue received from the general public who pay the fares. Therefore we would finally suggest that it is only that proportion of publicly delivered transport services that is subsidized by government that should have the 10% figure applied to it.

In taking this approach we are also ignoring the fact that after a certain time not only do public media run with skeleton staff but in some cases the services are reduced or addressed by alternative provision such as the NightRider replacement bus service.

We have found no evidence that new capital equipment programmes are directly inspired by the requirements of the night time economy. It might be reasonable to apportion some costs of capital equipment renewal to night time wear and tear but it would represent a very small part of the overall cost.

It was a recommendation to the client in Data Framework sign off was that we would not consider infrastructure costs unless clear that capital expenditure has been made primarily to support the NTE.

5.3.4 Other Public Service Costs

For the purposes of the cost aspect of this study it was identified that there are a number of NTE cost related expenses incurred directly by Sydney City Council, which are part of its changing annual budgets.

After discussion with a number of department heads in the Council it was agreed that costs for the relevant year of measurement – financial 2008/9 should be verified by channelling through the Director of Finance. Primarily this was intended to support the sense checking process since as with all other aspects of the NTE there are costs incurred by the City that can be perceived as directly attributable to the NTE whilst there are others where the input of the responsible manager may lead to a more accurate overall outcome.

Key examples of relevant department costs include:

- Administration
- Culture & Events
- Parks
- Community facilities
- Planning, design and public realm
- Transport and traffic management
- Cleansing and environment
- Safety.

6 Study Methodology

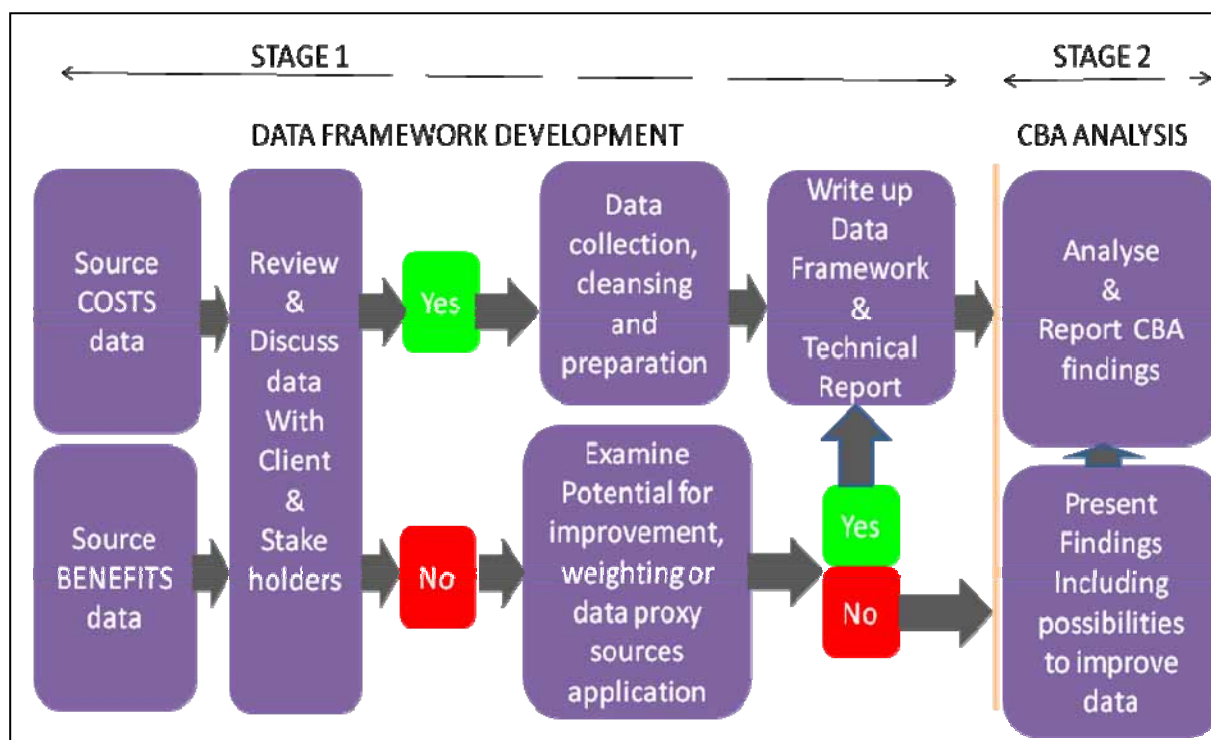
This research was carried out over a 3 month period from July to September 2011 by Terry Bevan of TBR³⁶ and statistical colleague Andrew License and Alistair Turnham of MAKE Associates and key local partner Michael Lester a Sydney based Economist, of Long View Partners.

6.1 Structure of the Methodology

Below we represent the methodology process diagram from our original proposal for this work

This process was designed to achieve the following objectives

- It recognised the lack of prior knowledge about the data that is available to measure the impact of the NTE economy and proposed a process which concentrated on data evaluation to deliver a Data Framework for NTE analysis
- It identified the steps of knowledge acquisition which would be necessary to provide a comprehensive first view of the costs and benefits of the NTE
- It set out the collection, analysing and reporting initiatives that would be necessary to deliver an initial picture to the City of Sydney Council and its stakeholders
- It commits to explaining the technical issues that remain and the ways in which Sydney might address them in order to develop a continuous process which will give increasingly better information about its NTE and the opportunities that this provides



³⁶ TBR is the trading name of Trends Business Research Ltd, an economic and skills consultancy. www.tbr.co.uk

6.2 Methodology Steps

As is evident from the methodology diagram above the early part of the methodology process was concerned with reviewing the elements of cost and benefit that it is important to include in the study and verifying the quality and accessibility of available data.

We have already explained the use of revenue and benefit related data sets in 5.2 above.

Much of our early work required contact with a wide range of organisations and people who are acknowledged in Appendices 1 and 2 in order to both understand the availability of data and its timeliness for the study. In the process we also discussed a number of views about the NTE with the contacts that were made. By and large these views go unreported in this study since it is not our brief to deliver an understanding of attitudes and perspectives on the NTE.

Broadly speaking our methodology required us to report at two key stages to the client.

The first of these stages revolved around the delivery of a Data Framework.

The Data Framework is a record of all relevant contacts for the cost benefit analysis. It contains

- Contact details for the key sources of data
- It explains how we have used the data
- It remarks on the limitations of the data
- It provides a base line to assess future requirements for measurement

Once we had obtained client's approval to the Data Framework we were able to commission research and commence analysis. This forms the second key stage of the commissioned project that concludes with report delivery and a presentation of our key findings to the client and the stakeholder group that is engaged in this agenda.

On the basis of both the approved Data Framework and the agreed shortcomings in available e sources we took up the full data files that were identified in Stage 1 and began to analyse this data and transcribe it into statistical outputs in Excel spreadsheet formats and Tables which comprise and sum to an overall view of the economic benefits and the economic costs of the Sydney NTE.

The Tables in Sections 7 and 8 of this report will show the layers of the individual cost and benefit elements and how they build to the overall picture.

We have sought to place these results in a wider Sydney and New South Wales context in order that the economic role of the NTE can be more fully understood.

Our report of findings and our conclusions about the strategic implications of the findings is contained in Sections 7 and, 8 (Findings and Detailed Findings) ,9 (Conclusions) and 10 (Strategic Implications).

The purpose of the methodological approach has been to deliver an overall view on the economic health of the Sydney NTE grounded in the significant part that it plays in the Sydney economy and in the wider NSW and Australian context.

We explain how the economic success of the NTE is critical to the success of the wider economy and community and to the standing of Sydney as a city of global reputation and importance.

We bring out the key strengths of the NTE and the problematic 'cost' areas that require attention so that issues that surround the NTE are addressed to the benefit of the community and the city.

We summarise shortcomings in existing data in Section 11 – Technical Recommendations in order that the City has a blue print of the key research steps it might take in the future to assist in further clarification of the role of the NTE.

Our methodological approach ensures that the results of the work are not a 'black box' which stakeholders would find difficult to comprehend, challenge or accept and therefore will help everyone to accept that the NTE is not a negative aspect of economic and community life but an extremely important net contributor to the economy without Sydney would be distinctly weakened in a number of respects.

7 Headline Findings

7.1 Cost Benefit Overview

This section is a summary of the key overview of the costs and benefit findings.

The primary point that we would like to make about the findings is that they should not be looked at as if they are the two different faces of the same coin with on the one hand a desirable economic context and on the other an undesirable price. There is little purpose to be served by looking at the figures in a search for offsetting benefits or explanations that support a particular approach to the NTE.

As we have noted throughout this report our primary duty has been to examine the factors that represent the benefits of the NTE that can be measured. Equally we have sought to bring together the primary costs which it may be said exist simply because the NTE exists and which in some cases represent costs which reflect the consequences of poor social behaviour around the NTE.

It is not all clear to us that such judgements are entirely correct but this is not part of our brief.

We suggest that it is proven beyond all reasonable doubt – if indeed there were doubt – that the NTE represents a substantial asset to the people of Sydney. It is also clear and this was also well understood before this study that there are unacceptable costs which arise from the behaviour of a minority of people during the hours that the NTE operates – whether connected directly with badly managed operations or a consequence of more deep rooted social concerns.

Both the potential of the NTE and the negative social behaviour attracted to its light need to be addressed through agendas which recognise the existence of one another and which support one another whilst at the same time accepting the most fundamental point of all that the solutions to problems do not require action that is at the expense of the night time economy.

Our key recommendation would be that economic development and social management are pursued as two different agendas that require the direct and indirect support of parties committed to either or both agendas. The scale of the NTE represents more of an opportunity than job 'done' and the nature of the societal disturbance remains a challenge for which new solutions should be brought to the table.

The headline findings are discussed and tabulated below.

7.2 Headline Benefit Findings

The Sydney LGA Night Time economy is an important component of the overall Sydney economy.

We have assessed its sales revenues in 2009 as being close to \$2.7 billion.

This figure only takes into account what we have termed the core NTE and therefore is more than defensible as a revenue earner for the city, delivering c3% of all turnover in the LGA economy without consideration of the related services which ensure that the NTE is effective .

This revenue and its associated employment allows the public sector to collect an estimated \$400 million pounds in key direct and indirect taxation which is redistributed to provide a wide range of public services at local and state levels.

The NTE in Sydney LGA provides over 27,000 jobs in that economy which represents c7% of all employment in the LGA.

On a New South Wales wide basis the equivalent figure for jobs is close to 340,000 and represents about 10% of all employment in the State. This is a critical part of all economic activity and it more than merits the focus by the City Council on its future development from an economic standpoint whatever the requirements for improvements in behaviour control and management might be.

There are aspects of the NTE which remain beneath the statistical and strategic radar with a wide range of very small firms (not yet charging GST) that may provide a platform for further growth in the NTE.

There is relevant evidence that the drinks only section of the NTE has experienced decline in the LGA whilst food related activities have grown. This transition is not so pronounced in Metropolitan Sydney and NSW where drinks sales and employment continues to hold higher proportions of overall activity.

The size and importance of the Sydney LGA NTE has been framed by comparison over the same time frame with the Westminster NTE economy in the UK. Westminster contains by far the largest concentration of NTE firms in the UK economy and yet its measured sales revenue and activity levels is proportionate to that of LGA Sydney with a smaller geography and employment base across all activities – NTE and non NTE.

7.2.1 LGA Sydney – Core NTE

The following section tabulates some of the breakdowns of difference across aspects of

- NTE activity performance in the LGA by the three primary core sub sectors
- The relative role of the NTE economy compared to the overall LGA economy
- The position and relative performance of the LGA to Metropolitan Sydney and NSW

Where possible we have made comparisons of 2006 and 2009 performance

The tables cover firm numbers, employment and sales revenue both within and outside the NTE economy. The first four tables in this section concentrate on NTE only statistics.

Table 1: Comparison of 2006 and 2009 NTE LGA Sydney – Businesses and Employment

Activity Type	Businesses			Employment		
	2006	2009	% Change	2006	2009	% Change
Drink	311	287	-7.7%	4,562	4,181	-8.4%
Entertainment	332	322	-3.0%	7,173	6,222	-13.3%
Food	1,943	2,141	10.2%	15,542	16,711	7.5%
Total	2,586	2,750	6.3%	27,277	27,115	-0.6%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.1)

Of primary interest in Table 1 is the net growth in the number of firms that is entirely due to growth in the food sub sector of the NTE. This more than offsets the decline in Entertainment and Drink businesses. Similarly there has been a shift in employment towards food outlets that almost compensates for the decline in non-food based employment.

Looked at through the prism of firms and collocated employment there is a clear need to grow and broaden the range of core NTE activities that are not drink only related.

Indications in other aspects of our work suggest that culture and sports related activities should be areas of potential investigation for growth and increase in the existing range of food based businesses.

The relative loss in Entertainment employment over the period examined suggests that some large firms have closed or that the 'churn' of firms is producing ones with average smaller sizes. The overall change in employment is negligible and shows this part of the economy as resilient during the onset of the global financial crisis.

Table 2: Comparison of NTE Core Firms 2009 with Metropolitan Sydney and NSW

Activity Type	Sydney LGA		Sydney SD		New South Wales	
	Firms	%	Firms	%	Firms	%
Drink	287	10.4%	952	7.3%	1,963	9.9%
Entertainment	322	11.7%	2,778	21.4%	4,507	22.8%
Food	2,141	77.9%	9,244	71.3%	13,329	67.3%
Total	2,750	100.0%	12,974	100.0%	19,799	100.0%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.1)

Table 2 above looks more closely at how the NTE in the LGA differs in respect of its broad firm population to the incidence of NTE businesses in Metropolitan Sydney and New South Wales. There is a paradox here between percentages for each activity and the employment figures in Table 3 below.

Whereas there appear to be a higher percentage of drink firms in the LGA at 10.4% of all businesses the figures for the other two geographies are lower – particularly Metropolitan Sydney.

The explanation for this difference is largely that firms outside the LGA are larger on average than firms inside the LGA.

Table 3: Comparison of NTE Core Employment 2009 with Metropolitan Sydney and NSW

Activity Type	Sydney LGA		Sydney SD		New South Wales	
	Emp	%	Emp	%	Emp	%
Drink	4,181	15.4%	48,061	22.1%	71,500	21.1%
Entertainment	6,222	22.9%	49,697	22.9%	86,773	25.6%
Food	16,711	61.6%	119,433	55.0%	181,099	53.4%
Total	27,115	100.0%	217,191	100.0%	339,372	100.0%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.1.)

In Table 3 above we see the explanation for the differences in Table 2. Over 20% of employment outside the LGA is in drinks related businesses whilst this figure is only 15% in the LGA itself.

Table 4: Comparison of NTE Core Sales Turnover (A\$m) 2009 with Metropolitan Sydney and NSW

Activity Type	Sydney LGA		Sydney SD		New South Wales	
	Turnover	%	Turnover	%	Turnover	%
Drink	\$425.0	15.7%	\$5,115.3	24.3%	\$7,697.6	23.4%
Entertainment	\$868.6	32.1%	\$5,863.7	27.9%	\$9,949.9	30.2%
Food	\$1,408.5	52.1%	\$10,066.4	47.8%	\$15,263.9	46.4%
Total	\$2,702.1	100.0%	\$21,045.3	100.0%	\$32,911.4	100.0%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.1)

In Table 4 above we have our first indication of the relative value of these core NTE firms to the LGA Sydney and wider economy. The difference in percentages between the LGA and the two larger geographies is maintained in terms of the breakdowns of the sub sectors.

The balance between the activities is always in favour of food establishments but this reduces as we move into the larger geographies emphasising the statistical message about the importance of food within the LGA.

7.2.2 LGA Sydney All NTE (including non core) and Non NTE

The tables in this section compare the same performance of LGA NTE Sydney with the other two geographies but now include all non-core NTE and all other business activity totals within the comparisons. This sets the NTE into a wider and deeper framework of reference.

The figures indicate that there has been a small amount of growth in core NTE firms over the 2006 to 2009 period of c6% but employment change is lower which suggests that within the dynamic of the NTE firms there has been restructuring with some smaller firms replacing some larger ones or that firms have reined in employment levels possibly at a time when a downwards cycle is anticipated in trading.

Table 5: Change 2006 and 2009 LGA Sydney – Total Economy – Businesses and Employment

Activity Type	Businesses			Employment		
	2006	2009	% Change	2006	2009	% Change
Core NTE	2,586	2,750	6.3%	27,277	27,115	-0.6%
Non-Core NTE	4,469	4,490	0.5%	79,425	80,717	1.6%
Total NTE	7,055	7,240	2.6%	106,702	107,832	1.1%
Non NTE	11,942	12,120	1.5%	271,567	279,197	2.8%
Total Economy	18,997	19,360	1.9%	378,269	387,029	2.3%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.2)

In Table 6 below we see for the first time the relative importance that NTE firms have in the LGA compared to Metropolitan Sydney and New South Wales. Both these larger geographies have larger NTE businesses but Sydney LGA has 14% of all its firms operating in the defined core NTE whilst the figure drops to half of that in the larger geographies. This difference in the level of the firm base probably signifies the importance of food related activity in the LGA and the probable need to focus on continuously raising the standards of the sector for purposes of attracting more visitors and increasing the reputation of Sydney as a gastronomic centre.

Table 6: Firms 2009 – Total Economy Breakdown

Activity Type	Sydney LGA		Sydney SD		New South Wales	
	Firms	%	Firms	%	Firms	%
Core NTE	2,750	14.2%	12,974	6.9%	19,799	7.0%
Non-Core NTE	4,490	23.2%	28,949	15.4%	43,045	15.2%
Total NTE	7,240	37.4%	38,005	20.3%	56,552	20.0%
Non NTE	12,120	62.6%	149,566	79.7%	226,855	80.0%
Total Economy	19,360	100.0%	187,571	100.0%	283,407	100.0%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.2)

Table 7: Overview of Employment 2009 – Total Economy Breakdown

Activity Type	Sydney LGA		Sydney SD		New South Wales	
	Emp	%	Emp	%	Emp	%
Core NTE	27,115	7.0%	217,191	10.0%	339,372	10.6%
Non-Core NTE	80,717	20.9%	364,035	16.8%	523,133	16.3%
Total NTE	107,832	27.9%	581,226	26.8%	862,505	26.9%
Non NTE	279,197	72.1%	1,585,950	73.2%	2,342,592	73.1%
Total Economy	387,029	100.0%	2,167,176	100.0%	3,205,097	100.0%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.2)

In Table 7 above and in Table 8 below we appreciate that although the Sydney LGA has a proportionately larger NTE firm base there are a number of larger firms in the wider geography that drive up the employment percentage and the revenue earned. What messages this has for the LGA would depend upon a more detailed analysis of the firm base and the reasons for the differences together with the opportunities and threats that may face different types of operating business.

Table 8: Overview of Sales Turnover (A\$m) 2009 – Total Economy Breakdown

Activity Type	Sydney LGA		Sydney SD		New South Wales	
	Turnover	%	Turnover	%	Turnover	%
Core NTE	\$2,702.1	3.2%	\$21,045.3	3.9%	\$32,911.4	4.1%
Non-Core NTE	\$12,478.4	15.0%	\$71,672.9	13.3%	\$104,803.6	13.1%
Total NTE	\$15,180.5	18.2%	\$92,718.2	17.2%	\$137,714.9	17.3%
Non NTE	\$68,062.8	81.8%	\$446,411.2	82.8%	\$659,618.7	82.7%
Total Economy	\$83,243.3	100.0%	\$539,129.4	100.0%	\$797,333.6	100.0%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_7.2.2)

7.2.3 Comparison with Westminster

We wondered if comparing LGA Sydney economic activity with the major NTE in the United Kingdom might throw up some useful contrasts for policy development.

The two tables below illustrate the performance of Sydney with the largest NTE economy in the UK – Westminster – over the same time frame. Given that Sydney LGA is the financial centre of the economy we have also provided the same figures for City of London.

Table 9: Core NTE Activities – International Comparison 2006 to 2009

Area	Activity	Businesses			Employment		
		2006	2009	% Change	2006	2009	% Change
Sydney <i>Working Age Pop</i> <i>69,700</i>	Drink	311	287	-7.8%	4,562	4,181	-8.3%
	Entertainment	332	322	-3.1%	7,173	6,222	-13.3%
	Food	1,943	2,141	10.2%	15,542	16,711	7.5%
	Total	2,586	2,750	6.3%	27,277	27,115	-0.6%
Westminster <i>Working Age Pop</i> <i>236,000</i>	Drink	755	666	-11.8%	12,765	10,478	-17.9%
	Entertainment	187	146	-21.7%	5,950	5,762	-3.1%
	Food	2,853	2,702	-5.3%	38,926	39,677	1.9%
	Total	3,795	3,515	-7.4%	57,640	55,917	-3.0%
City of London <i>Working Age Pop</i> <i>7,900</i>	Drink	280	236	-15.9%	2,578	2,780	7.8%
	Entertainment	23	11	-53.3%	74	60	-19.2%
	Food	562	578	2.7%	6,615	7,280	10.1%
	Total	865	824	-4.8%	9,267	10,120	9.2%

Source: Combined FES/ABS 2006-2009 & TBR/MAKE NightMix 2009 (TBR Ref: W4/Sec_7.2.3)

In Table 9 above there may be more lessons to be drawn for Westminster than for Sydney. We can see the impact of the UK recession in these figures as the overall percentage of NTE businesses falls by c7% and employment is down by 3%. However the most striking figure is the number of employees per business that must be employed in Westminster. Even though the numbers have declined the average number of employees per firm is clearly greater. This would be fine if the numbers for turnover were telling us that these are larger businesses but that is not the full picture that is conveyed or confirmed by Table 10 below.

Again we would need more information to fully understand what is happening but productivity certainly appears to be better in Sydney at c \$100,000 per employee.

Otherwise the general trends are remarkably similar in the movement down of drink businesses and the increase in food related businesses. However statistically the change is more pronounced in Sydney and we can see the productivity issue in the turnover per head figures in Table 10 below.

The comparison does disguise a different issue that is that in Australia the average productivity of these types of business is much lower than across a wide basket of other sectors. There is need in Sydney to look at the productivity issue and both ask questions and engage with firm models that exceed the average that is shown.

Table 10: Core NTE Activities – International Comparison Summary for 2009

Area	Activity	Businesses	Employment	Turnover (A\$m)	Turnover / Emp (A\$k)
Sydney <i>Working Age Pop</i> <i>69,657</i>	Drink	287	4,181	\$425.0	\$101.6
	Entertainment	322	6,222	\$868.6	\$139.6
	Food	2,141	16,711	\$1,408.5	\$84.3
	Total	2,750	27,115	\$2,702.1	\$99.7
Westminster <i>Working Age Pop</i> <i>236,000</i>	Drink	666	10,478	\$653.1	\$62.3
	Entertainment	146	5,762	\$601.9	\$104.5
	Food	2,702	39,677	\$3,168.0	\$79.8
	Total	3,515	55,917	\$4,422.9	\$79.1
City of London <i>Working Age Pop</i> <i>7,900</i>	Drink	236	2,780	\$191.2	\$68.8
	Entertainment	11	60	\$5.2	\$86.5
	Food	578	7,280	\$697.6	\$95.8
	Total	824	10,120	\$894.0	\$88.3

Source: Combined FES/ABS 2006-2009 & TBR/MAKE NightMix 2009 (TBR Ref: W4/Sec_7.2.3)

7.2.4 Tax Findings

Tax revenues collected as a result of business and employee activity in the NTE was not considered as part of the original client brief. However we have had a first look at the likely scale of these revenues in Section 8.1.4 below which deals with benefits in greater detail.

Our indicative findings are that the LGA NTE results in the generation of key tax revenues in excess of \$400 million. This is meant only to be a ball park figure and requires further investigation.

7.3 Headline Cost Findings

These findings consist of four components that have been flagged earlier in the report.

- The largest estimated net cost to the public accounts is transport at \$64.8 million
- Policing is the second largest cost but because we have used both a narrow and wide estimate we report in summary a figure of \$24.18 million as a median. This is explained in the text that follows and in detailed policing costs in Section 8.
- Health costs for the two hospitals with ED services in the LGA we estimate to be \$4 million
- \$31million is the NTE cost attributed to the activities and services of the City Council

In total these costs do not exceed \$120 million. This is a small proportion of the attributed and measured revenue benefits. However as we state elsewhere in this report this is an incorrect way of looking at these outputs. There is not much point in the comparison. There is only point in using the quantum in each case, as base line information in order to develop two very different strategic aspects of the NTE to the development of the NTE.

- Its successful economic development and diversification
- Its engagement to help minimise the impacts of anti social behaviour

What is clear in the cost outputs is that they represent a range of elements of which some clearly would signify improvement if the costs could be reduced and the resources invested for different purposes. We have in mind some aspects of health and policing costs here.

On the other hand the net publicly attributable transport costs lead us towards another aspect of the NTE. The need to consider night time services which help to improve the experience.

It may be that until the critical mass is raised that major strategic changes in transport services are not justified but it is also clear that the lack of ability to move away from the NTE at hours when problems are likely to occur may exacerbate incidents.

The heavy dependence on taxis from 12 p.m. provides a useful service but emphasises the disappearance of other public means of conveyance at that time. Taxis account for 80% of public transport trips out of the LGA from midnight to 3 a.m.

The public administration support costs will change from year to year and perhaps the most important aspect is not the general requirements for street and parking maintenance but small investments in the future in improved CCTV in especially the Kings Cross area and in lighting and space strategy which helps to build propositions that will bring non drink related new activities into the centre of the city.

7.3.1 Police Costs

Costs for policing Sydney LGA NTE fall into two logical categories.

The first is *staff time*, which is easier to attribute because it is specific to the LGA and varies depending on how many personnel senior officers believe are required to maintain order.

Secondly, we apportion a share of the annual (2009/10) NSW police non-staff *operating costs* to the LGA NTE. To do this we have used the proportion of staff time as above.

Further, we have provided two estimates of the minimum and maximum figures. For reasons beyond the scope of this study these are substantially different. There is little doubt that the minimum is a substantial underestimate. The maximum is no doubt an overestimate.

Using this logic we estimate that the **minimum staff cost of police Sydney's NTE in 2009/10 was around \$300,000 a year**. This, figure, which appears at first to be unusually small, only covers *alcohol-related* issues at night. It does not cover general police patrolling of the LGA's NTE as well as a number of issues which are beyond the scope of our study.

At the other end of the spectrum, **the maximum cost of policing Sydney's NTE in 2009/10 was around \$2.5m dollars**. However, because this covers *all* officer time between approximately 6pm and 6am in the LGA, it is an overestimate. This is because it includes the police dealing with non NTE-related issues such as speeding, RTAs (where alcohol has not been drunk in the NTE), domestic violence and youth issues.

It is impossible, without substantial further work, to be more precise. Obviously in future, the aim will be to bring these figures into sharper focus. However, the 'true' figure is in-between these two poles, and **the median figure of \$1.38m** is useful as a benchmark for progress.

The share of NSW Police's annual non-staff operational costs³⁷ related to Sydney LGA NTE is as follows.

Using the same proportions as above, we estimate that the **minimum attribution of policing Sydney LGA's NTE in 2009/10 was around \$5m** of the force's overall \$500 million non-staff budget.

At the other end of the spectrum, **the maximum figure is \$41m**.

Again, the first figure will be an underestimate and the latter an overestimate. However, this is due to different reasons to the staff costs note above. There are fixed costs within the non staff operational figures that would need to be there regardless of whether or not Sydney had an NTE.

E.g. the police head quarters building (rather than a local station), IT systems and the like.

The median of these non-staff operational costs is £22.8m.

So in total, the cost of policing Sydney's NTE can be put at between approximately **\$5.3m a year and \$43.5m** a year (at 2009/10 costs).

7.3.2 Health Costs

Are assessed to be in the region of \$1.7 million without considering costs beyond A & E Services and we believe that based upon the indirects we established in the police figures it would not be unreasonable to double this figure to c\$4 million.

Costs for health within Sydney LGA's NTE are very much a 'representative benchmark', rather than an exhaustive survey of all health costs associated with the city's NTE, which, due to their complexity, was not possible to discern within this study and even a task that a dedicated study might find impossible to answer. The reasons for this are those noted in section 5, where we outline the issues of dealing with health data within the city and state more generally.

Therefore, the costs we present in this section are based mainly on staff time (with some basic emergency department (ED) supply costs included). Unlike police costs, it does not have a separate section where we attribute a proportion of the cost of operating the hospitals and the NSW health service more generally to the NTE. This is because this is much more complicated than the police task and substantially outside the scope of this study and the data that is readily available.

³⁷ The costs of running the police service, e.g. buildings, cars, uniforms, outside consultants, finance services etc.

Therefore, as noted in section 5, we have taken the data from the LGA two main hospitals that have EDs and used the BOCSAR 2005 study of ED costs at one of them, St Vincent's, as a proxy for the other – the Royal Prince Alfred (or RPA).

As noted in section 5, this means that costs for patients once they have left the ED, either to enter ICU or other hospital ward or have self discharged are not included. While the number of people admitted from ED is only around a quarter to a third, depending on the hospital, the cost of care is much higher than ED, so we must assume that this could be equal to or even exceed the ED costs set out here.

Again we must state that the costs below are based on alcohol-related admissions at the hospitals for both *injuries* and *intoxications*. Therefore, this will include those sustained during the day and the night and those that occurred in the NTE or those that might have occurred in the home or other location. It also includes people who have arrived at the hospitals from outside the LGA.

However, while this means in the first instance the total is an overestimate, the figures do not include those who do not present at a hospital and then leave without treatment and have to visit a doctor or return later when not intoxicated themselves. Nor does it include those who arrive at hospital injured by somebody who was intoxicated but who themselves were not intoxicated.

Neither does it include more contested externalities such as lost days of work as a result of an injury sustained while intoxicated and the cost of legal and insurance services in following such a case through. So there is every chance that the additional costs that are not accounted for will outweigh the inclusion of alcohol-related injuries and intoxications from outside the NTE.

Therefore, although the figures given are a 'benchmark' 'sampling' against which future progress in reducing the negative alcohol-related externalities of the NTE can be measured, rather than an exhaustive 'census', they are based on reasonable assumptions.

They almost certainly underestimate the negative impacts on health of the NTE.

Taking these limitations into account we estimate that the **minimum cost of providing ED healthcare to Sydney LGA NTE in 2009/10 was around \$1.7m dollars per year.**

7.3.3 Local Government Costs

All council costs relating to the NTE are estimated at \$31m. The largest cost is cleansing and environment with planning, design and public realm the next largest cost.

However, as section 8 shows, these are made up of both *direct* costs, e.g. those that the NTE requires in order to maintain good order, cleanliness and safety (as well as events and entertainment), and *indirect* costs, e.g. where we have apportioned a small and conservative share of the overall running of relevant council internal services to the NTE.

7.3.4 Transport costs

Are suggested to be a maximum of \$ 64.8 million

This is broken down between

Rail - \$50 million

Road - \$5.2 million

Ferry - \$9.6 million

This estimate is based upon the following approach to the key aspects of transport cost measurement.

Rail Transport

The overall Rail Passenger revenue attributed to provision in the LGA for 2009 was \$724³⁸ million.

We know from traffic movement statistics that have been averaged over a five-year period to 2010 that the maximum proportion of this figure that could be allocated to the delivery of Night Time Services would be 10% of this total which would amount to \$72 million. By some perspectives this figure could be as placed as low as 5%.

However we also know from public documents³⁹ that the rail transport system is adjudged to depend for c70% of its revenue on state subsidy. We may therefore deduct 30% from this figure to arrive at an estimated cost of \$50 million for the rail aspect of costs that could be attributed to the NTE. (The actual IPART determination for 2009 was 28,5% but the materiality of this difference for the purposes of the study is not considered to be significant)

In reality this 10% of all rail travel figure might be lower as applied to the NTE since a higher proportion of returning travellers use private means of transport to get home after 6 p.m. and the actual percentage of people travelling home by rail at the highest point in the numbers (weekends 2010) is only 5% of all surveyed outward movements.

Also many of these returning individuals would not have been engaged in any way with the NTE. It is also clear from the transport movement figures that the three quarter of the outward movements after 6 p.m. are completed by 9 p.m. and that alternative arrangements are made on many service routes for Night Rider bus provision to take over the services.

On the basis of all the above we do not consider it reasonable to even flag the absence of capital equipment provision and servicing since clearly the rail routes are not used as a primary means of conveyance by a very high proportion of inhabitants or travellers.

We take the same approach to the other key forms of public transport media.

The proportion of travellers who use the other media after 6 p.m. are quite small in so far as

Bus Travel

Bus travel accounts for 11% of 24-hour movements and 10% of after 6 p.m. movements.

Based on the overall figures for Bus travel as per the survey we suggest that the cost that needs to be added to rail cost for the purposes of this study is 25% of the reported figures for road public transport since this is the proportion of all bus services after 6 p.m. to the 24 hour total of estimated journeys that were provided in the later time period.

This would deliver an additional cost to factor in to the study cost estimates of \$ 5.2 million.

However we propose that this figure is considered to be provisional since as far as can ascertain the major road service provider operates at a higher level of sales turnover than our officially sourced figure suggests. At the same time the provision of this service does not seem to require large state subsidy and is close to self sustaining from its passenger revenues.⁴⁰

Ferry Travel

Travel by Ferry accounts for only c2% of after 6 p.m. movements and this is 38% of Ferry movements out of the LGA until shutdown. Approximately 12% of the total figure occurs between 9 p.m and shutdown and we suggest that this is a conservative figure to first base any assumptions that individuals are returning from some night time engagement within the LGA.

³⁸ Per ABS/FES 2009 calculated basis for organisations and total turnover within the LGA

³⁹ IPART Review of City Rail Fares 2009-2012 (Published December 2008)

⁴⁰ State Transit Authority Annual Report 2010

On this basis we would apportion 12% of the higher £130 million reported figure and then deduct the 38% which appears to be supplied by passenger fares. Thus our total for this aspect would be \$9.6 million.

Ferry travel is undergoing major restructuring in Sydney that will include the purchase of 6 new ferries but we do not believe that this is material to the findings in this aspect of our work.

The 2010 Accounts state that c62% of the operational expenses of the ferry services in 2009 were met by government and we would normally consider this in any costs of transport for the purposes of this study. However we also note that the reported income of the Ferry Company was in excess of £130 million that is again at variance with our ABS based figures. This would not be the case if those figures were already corrected for state subsidy. We will need to confirm this and use the higher figure in the calculation.

We note in the Annual Report of Sydney Ferries in 2010 that 50% of its passengers are for leisure purposes. These journeys will be largely daytime since the Ferry service closes down too early for it take any role in the movement of late night visitors back to destinations outside the LGA.

All these costs and the related basis of measurement are discussed in greater detail in Section 8 below.

All figures relate to the same time period on which we have based the benefit findings

8 Detailed Findings

In this section we study the detailed messages from the findings.

The reported benefit statistics are broken down in greater detail and wherever possible compared over time from 2006/7 to 2009 but with emphasis on the most recent date since this study was always intended to provide a first snapshot of economic costs and benefits in order to deliver a reliable starting point for the measurement of change and development of the NTE.

Some initial calculations of tax benefits are made.

The basis for the cost calculations is provided in greater detail.

8.1 Benefits in Detail

8.1.1 Introduction

Under benefits in this section of the report we take a more detailed look at the range of activities that comprise the three sub sectors of the core NTE. This is particularly important in order to understand the potential avenues for future growth and change that is presented by the economic structure.

Given that we have been able to cross reference three different data bases in the collection of this material we are reasonably satisfied that the activities and proportionality of the numbers may be relied upon. However within the scope of the work we have not been in a position to verify the details of every business that has been included. Such a cleaning process would only be possible with full access to the full financial firm details of the businesses that are captured in the study.

Usually this is only possible as a process of validation via a private sector database since public sector data management such as that of ABS would not permit such examination. Given that a very high proportion of the firms in the study together with their employment details have been verified by the work of the City Council FES Survey we believe that stakeholders can reasonably rely on these details.

We have found nothing in our use of ABS and D & B data which does anything to seriously question the soundness of the core FES picture that was delivered in 2006 (and which will be repeated for 2011 and available in 2012). D & B and ABS do allow us to enhance the usefulness of the data in respect of the benefits of the NTE.

This permits us to provide a view of the detailed activities in the NTE and their relative importance by revenue, employment and business numbers to the Sydney economy both relatively and absolutely.

We also take a slightly more detailed look at the indirect revenues generated by the taxation regime.

8.1.2 Core NTE

In Table 11 below the three core broad sub sectors of Drink, Entertainment and Food are split out as far as is possible under our application of the ANZIC descriptions of business type.

For the first time we see that Drink is split into Liquor Retailing and Pubs, Taverns and Bars whilst Hospitality Clubs are part of the Entertainment sub sector. This allows us to understand that the decline in the Drink sub sector is almost entirely due to a decline in liquor retailing and this may partly be because such retailing has shifted across into the major food retailing businesses. This would require further research to verify this.

Also we are able to see the growth in smaller aspects of the NTE such as Creative and Performing Arts although the overall change in the Entertainment sub sector is not encouraging and the most important underlying shift is towards Food based operation.

In Section 8.2 we comment separately on the large number of non-employed and non GST registered businesses since whilst micro businesses these figures should take those numbers into account when assessing strategic involvement. (See Section 8.2 below)

However if we strip away the sometimes confusing numbers and percentages we can see that ANZIC code 4511 Cafes and Restaurant's has been the main driver of change in this period. This is in respect of firm change and employment growth.

Table 11: Detailed Core NTE Breakdown - 2006 to 2009

Activity	ANZSIC	Description	Businesses			Employment		
			2006	2009	% Chg	2006	2009	% Chg
Drink	4520	Liquor Retailing	252	230	-8.9%	4,197	3,794	-9.6%
	4123	Pubs, Taverns and Bars	59	57	-3.0%	365	387	6.0%
	Total		311	287	-7.8%	4,562	4,181	-8.3%
Entertainment	551	Motion Picture & Video	7	8	15.5%	182	208	14.3%
	900	Creative & Performing Arts	132	123	-6.8%	2,036	2,067	1.5%
	911	Sports & Physical Recreation	83	95	13.9%	739	710	-3.9%
	912	Horse & Dog Racing	4	4	-12.5%	41	38	-6.7%
	913	Amusement & Other Recreation	8	6	-20.1%	26	20	-23.2%
	920	Gambling Activities	26	27	5.3%	2,911	2,218	-23.8%
	4530	Clubs (Hospitality)	42	41	-3.2%	871	818	-6.1%
	9534	Brothel Keeping & Prostitution	30	18	-40.0%	367	142	-61.2%
	Total		332	322	-3.1%	7,173	6,222	-13.3%
Food	4511	Cafes & Restaurants	1,438	1,617	12.4%	12,659	13,737	8.5%
	4512	Takeaway Food Services	505	525	3.9%	2,883	2,974	3.1%
	Total		1,943	2,141	10.2%	15,542	16,711	7.5%
	Core Total		2,586	2,750	6.3%	27,277	27,115	-0.6%

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_8.1.2)

In Tables 12 and 13 below we gain some impression of the relative size structure of the firms within sub sector activities by firm numbers and total recorded employment. Here Liquor Retailing has a counter intuitive feel since compared to all the other activities it has a much larger proportion of its firms with more than 20 employees at 30% of all firms.

Table 12: Detailed Core NTE Breakdown – Firms 2009

Activity	ANZSIC	Description	A: 1 to 4	B: 5 to 19	C: 20+	Total
Drink	4520	Liquor Retailing	42	118	69	230
	4123	Pubs, Taverns and Bars	24	31	2	57
	Total		67	149	71	287
Entertainment	551	Motion Picture & Video	1	3	5	8
	900	Creative & Performing Arts	67	36	19	123
	911	Sports & Physical Recreation	53	38	4	95
	912	Horse & Dog Racing	1	2	1	4
	913	Amusement & Other Recreation	5	1	0	6
	920	Gambling Activities	17	8	3	27
	4530	Clubs (Hospitality)	9	16	15	41
	9534	Brothel Keeping & Prostitution	2	17	0	18
	Total		155	120	47	322
Food	4511	Cafes & Restaurants	694	794	129	1,617
	4512	Takeaway Food Services	282	230	12	525
	Total		976	1,024	141	2,141
	Core Total		1,198	1,293	259	2,750

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_8.1.2)

This pattern is reemphasised in Table 13 but in terms of absolute employment we would expect the shift to larger size organisations. Nevertheless there is a discernible difference between the number of employees in small and large firms across the activities where again Cafes and Restaurants that employ 1 to 4 people contribute 60% of all employment in that size range.

Table 13: Detailed Core NTE Breakdown – Employment 2009

Activity	ANZSIC	Description	A: 1 to 4	B: 5 to 19	C: 20+	Total
Drink	4520	Liquor Retailing	125	1,245	2,425	3,794
	4123	Pubs, Taverns and Bars	68	229	90	387
	Total		193	1,474	2,515	4,181
Entertainment	551	Motion Picture & Video	4	25	180	208
	900	Creative & Performing Arts	160	356	1,551	2,067
	911	Sports & Physical Recreation	118	403	190	710
	912	Horse & Dog Racing	1	8	29	38
	913	Amusement & Other Recreation	14	6		20
	920	Gambling Activities	47	63	2,109	2,218
	4530	Clubs (Hospitality)	29	175	613	818
	9534	Brothel Keeping & Prostitution	2	140	0	142
	Total		374	1,176	4,672	6,222
Food	4511	Cafes & Restaurants	2,098	6,671	4,968	13,737
	4512	Takeaway Food Services	803	1,714	456	2,974
	Total		2,901	8,386	5,424	16,711
	Core Total		3,468	11,036	12,611	27,115

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_8.1.2)

In Table 14 below we gain some impression of the sales value contributed by the activities within the sub sectors. We do suggest that these figures are examined in greater detail together with the non GST reported firms in 8.2 because they add greatly to the overall picture if one is considering possible avenues of growth and existing expertise to contribute to such growth.

Table 14: Detailed Core NTE Breakdown – Turnover (A\$m) and Turnover per employee (A\$k) 2009

Activity	ANZSIC	Description	Turnover (A\$m)	TO/Head (A\$k)
Drink	4520	Liquor Retailing	\$319.8	\$84.3
	4123	Pubs, Taverns and Bars	\$105.2	\$271.9
	Total		\$425.0	\$101.6
Entertainment	551	Motion Picture & Video	\$85.0	\$408.6
	900	Creative & Performing Arts	\$286.4	\$138.6
	911	Sports & Physical Recreation	\$98.4	\$138.6
	912	Horse & Dog Racing	\$5.3	\$138.6
	913	Amusement & Other Recreation	\$2.8	\$138.6
	920	Gambling Activities	\$307.4	\$138.6
	4530	Clubs (Hospitality)	\$68.9	\$84.3
	9534	Brothel Keeping & Prostitution	\$14.4	\$101.2
	Total		\$868.6	\$139.6
Food	4511	Cafes & Restaurants	\$1,157.9	\$84.3
	4512	Takeaway Food Services	\$250.6	\$84.3
	Total		\$1,408.5	\$84.3
	Core Total		\$2,702.1	\$99.7

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_8.1.2)

8.1.3 Non-Core NTE

In Table 15 we take a detailed look at the non-core activities that relate to and to some extent depend upon the NTE core. Comments are given below the table. The Green highlighted rows in this case represent the services that we have undertaken to examine more closely to identify detailed NTE costs.

Table 15: Detailed Non-Core NTE Breakdown – Firms, Employment, Turnover (A\$m) & Turnover per employee (A\$k) 2009

Activity	ANZSIC	Description	Firms	Emp	Turnover (A\$m)	TO/Emp (A\$k)
Care	771	Public Order & Safety Services	14	2,353	\$226.1	\$96.1
	840	Hospitals	19	3,409	\$219.1	\$64.3
	Total		33	5,762	\$445.3	\$77.3
Creative Education	8212	Arts Education	71	860	\$41.6	\$48.4
Cultural	601	Libraries & Archives	10	71	\$29.0	\$408.6
Design	692	Architectural, Engineering & Technical Services	709	9,943	\$1,722.7	\$173.3
Education	821	Adult, Community & Other Education	29	254	\$12.3	\$48.4
Food	411	Supermarket & Grocery Stores	293	1,540	\$418.9	\$271.9
	412	Specialised Food Retailing	148	947	\$257.5	\$271.9
	Total		441	2,487	\$676.4	\$271.9
Hospitality	4400	Accommodation	242	7,936	\$668.9	\$84.3
Infrastructure	29	Waste Collection, Treatment & Disposal Services	1	5	\$3.9	\$732.9
	751	Central Government Administration	56	7,561	\$704.1	\$93.1
	752	State Government Administration	118	15,030	\$1,399.6	\$93.1
	753	Local Government Administration	27	1,210	\$112.7	\$93.1
	9531	Laundry & Dry Cleaning Services	114	646	\$65.3	\$101.2
Total		316	24,452	\$2,285.6	\$93.5	
Promotion	694	Advertising Services	253	6,686	\$1,158.4	\$173.3
Research	692	Architectural, Engineering & Technical Services	1	6	\$1.0	\$173.3
	695	Market Research & Statistical Services	129	3,168	\$548.8	\$173.3
Retail	422	Electrical & Electronic Goods Retailing	153	1,179	\$320.6	\$271.9
	424	Recreational Goods Retailing	150	908	\$246.9	\$271.9
	425	Clothing, Footwear & Personal Accessory Retailing	1,211	7,396	\$2,011.2	\$271.9
	426	Department Stores	37	1,141	\$310.3	\$271.9
	427	Pharmaceutical & Other Store Based Retailing	481	2,809	\$763.7	\$271.9
	4241	Sport & Camping Equipment Retailing	52	556	\$151.1	\$271.9
	4242	Entertainment Media Retailing	63	410	\$111.5	\$271.9
	4243	Toy & Game Retailing	26	150	\$40.8	\$271.9
Total		2,173	14,549	\$3,956.1	\$271.9	
Sports Education	8211	Sports & Physical Recreation & Instruction	7	24	\$1.1	\$48.4
Transport	462	Road Passenger Transport	15	100	\$21.0	\$210.7
	472	Rail Passenger Transport	13	3,436	\$724.0	\$210.7
	482	Water Passenger Transport	8	204	\$43.0	\$210.7
	4623	Taxi & Other Road Transport	12	588	\$123.8	\$210.7
	9533	Parking Services	29	192	\$19.5	\$101.2
Transport Total		77	4,520	\$931.2	\$206.0	
Non-Core Total			4,491	80,717	\$12,478.4	\$154.6

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_8.1.3)

The non-core Table 15 above covers the wide range of activities and organisations that link in some way to the NTE. We have eliminated all this activity and turnover from the benefits statement but it is still important to mention since it contains most of the business activities which support the NTE in some way (e.g. Transport Services, Arts Education, Libraries and Archives, Accommodation and Infrastructure) and some which also provide services to the NTE but are barely engaged with it (such as a wide range of retailing).

Also it is here where the issues of cost and benefit are most evident. Some of these services are heavily state subsidised and some are regarded as providing services that would be best applied elsewhere if the regulatory and management regime of the NTE is improved. (E.g. aspects of Public Order, Hospital and Infrastructure Costs)

We have dealt with this key aspect of the subject by looking at those costs quite separately (See Section 7.3 above and 8.3 below – Costs in Detail) and by seeking to assess through the body of available research the extent to which they do represent costs which if not the direct responsibility of NTE enterprises are at least in need of acknowledgement for the purposes of either managing, reducing or eliminating their impact.

Table 15 is far too detailed to comment on in detail. It is in this report to remind us of the economic linkages between core and non-core NTE activities and in some ways is a better (clearer) representation of the inter related impact of change on the Sydney economy and where it would have effect than the use of a 'multiplier' to calculate values of related and secondary employment and revenue.

We assess the NTE to touch the overall size of this non-core sector in ways that are mainly beneficial and the sector itself accounts for over 80,000 employees in the LGA and c\$12 billion in sales revenue.

This in itself is a benefit of the NTE since without the symbiosis the economic performance would be greatly reduced by the disappearance of the core NTE revenues and the purchases that help to sustain these activities.

8.1.4 Tax Revenues

Providing information on taxes collected was not in our original brief but the benefits of the NTE are not simply confined to employment and the potential for revenue and reputation growth.

There is considerable interest from stakeholders in the social and community related consequences and costs of the interaction with NTE services of people disposed to abuse alcohol and other substances.

The tax estimates are meant to be no more than an indication at this stage but they do help to explain the public benefit of core NTE business activity.

Whilst with the exception of property rates the Sydney LGA collects a very small part all the tax levied on its NTE the businesses nevertheless play an important part in the public receipts that are redistributed for a wide variety of purposes by federal and state governments.

Below we identify and comment briefly on the key taxes collected that arise from the existence of NTE businesses. It is not our intention to provide an exact figure but these estimates deliver a representation of values based upon the measured proportionality of NTE firms and employment in Sydney LGA NTEs compared to the firm and employment totals recorded by ABS for 2008/9⁴¹ and by the ATO⁴² in its public reporting of key tax receipts collected for the same period.

⁴¹ ABS 6206.0 Labour Force Australia, 2009 and ABS 8150.0 Counts of Australian Businesses 2007 to 2009

⁴² Australian Tax Office 7.18 Appendix 18 Financial Schedule 2009/10 Figures relate to 2008/9 Note 18.

8.1.4.1 Corporate Tax

Corporate Tax is levied at the rate of 30% on all taxable profits. In the year 2008/09 the ATO⁴³ reports tax collections of c\$61 billion for this tax. If we assume that LGA Sydney based core NTO businesses represent the average performance of all businesses then the figure quoted in 8.1.4.5 below represents an approximate estimate of corporate tax revenues from NTE businesses.

We have noted elsewhere that NTE businesses may overall be less productive per employee than many other types of Australian activity but equally this seems to be compensated as reported in federal labour statistics by lower average wage levels. Therefore without conducting a detailed study we have no grounds for not regarding this as a reasonable indication of the position.

8.1.4.2 Property Rates

The figure for Property Rates is supplied by the Sydney City Council for the year to June 2009.

It is based upon actual valuations and levied returns retained by the LGA which are capped by State Government.

This figure does not include fees for services such as sewerage, garbage, streets and for electricity, gas. Telecoms and water usage that are paid directly.

8.1.4.3 Pay Roll Tax

Pay Roll Tax is levied and collected by State government as a percentage of labour costs. The current rate of tax is 5.45% levied on company but only if wages bill exceeds \$678,000.

Therefore in our calculation we have assumed that in 2009 only 32.9% of the 2750 business in the core NTE would be subject to this tax since all other firms have employment that is not likely to take them to this threshold.

In addition to the payroll tax companies will pay 9% of wages for superannuation purposes at rate of 9% directly into private independent superannuation funds. These funds greatly increase the capacity of markets to fund capital projects but we have not included it since the ultimate beneficiary is the employee and not the public sector.

Companies can also be liable for Compensation Insurance paid at rates up to 15% in industries where there is significant risk. This is paid to State Government Insurance Agencies (Work cover in NSW)

8.1.4.4 GST

This is collected nationally by ATO⁴⁴ and is currently at a rate of 10% .

Since most core NTEs deliver products directly to the public we have taken the view that the NTE firms in LGA Sydney (all of which are GST registered businesses) will contribute to the overall \$43 billion collected in 2008/9 in proportion to their fraction of all GST registered Australian firms. No distinction is made between the GST that they may have paid to acquire their own services and the GST they have rendered in payment for their own services since this would be a form of double counting and we have no opportunity in this study to examine how NTE business differ from other business in respect of their GST impact. At the end of the day if the NTE businesses did not exist Federal receipts would be diminished by the gross amount less that provided by the businesses which, hypothetically, could replace them.

GST is redistributed through the system to State governments.

⁴³ Australian Tax Office - Reference Appendix 7.18 Financial Report 2009/10

⁴⁴ Australian Tax Office

8.1.4.5 Personal Taxation

In 2009 personal taxation was based upon the following schedule

\$0 to \$6000 Nil ; \$6k to \$34k – 15c for each \$ above \$6k

\$34 to \$80k - \$4200 plus 30c per each \$ above £34k

\$80k to \$180k - \$18000 plus 40 cents per each \$ above \$80k

\$180k and above - \$58000 plus 45c each \$ above \$180k

The ATO collected c\$126 billion through the tax system in 2008/9.

Assuming that employees in the NTE businesses would represent an unadjusted average of the amount collected in proportion to the percentage of employees in the Sydney NTE LGA businesses as a fraction of all Australian employment as at June 2009 then taxes taken into the system would amount to \$316 million. We have discounted this figure to 72% of that total based upon the reported annual wage averages earned in sectors that are typically NTE⁴⁵ in nature.

8.1.5 Calculation of Taxes as derived benefit to economy from NTE

TAX REVENUES	PERSONAL TAX	CORPORATE TAX	PAYROLL TAX	PROPERTY RATES	GENERAL SALES TAX	OVERALL TOTAL
Estimate	\$227 million	\$81 million	\$69 million	\$30 million	\$57 million	\$457 million

These tax benefits exclude all tax collected on such tradable commodities as fuel and liquor which whilst very large sources of revenue for government are substantially less than the taxes cited.

8.1.6 The spatial distribution of the NTE in 2009

The location and interrelationship of businesses is a key facet in the development of the NTE. There is no doubt that Sydney needs to foster a wider business base which places emphasis on food and a definition of entertainment which is based around culture and the creative arts.

The 2 Maps below are commissioned from Sydney City Council to illustrate the present geographic spread of the core NTE business.

Because of the concern with the drink component of the NTE economy the maps are drawn to illustrate the latest co location of both Food to Entertainment and Drink to Entertainment.

Given that there are approximately the same number of entertainment venues as drinks venues it is interesting to see the greater level of clustering between drink and food as compared to drink and entertainment between the two maps.

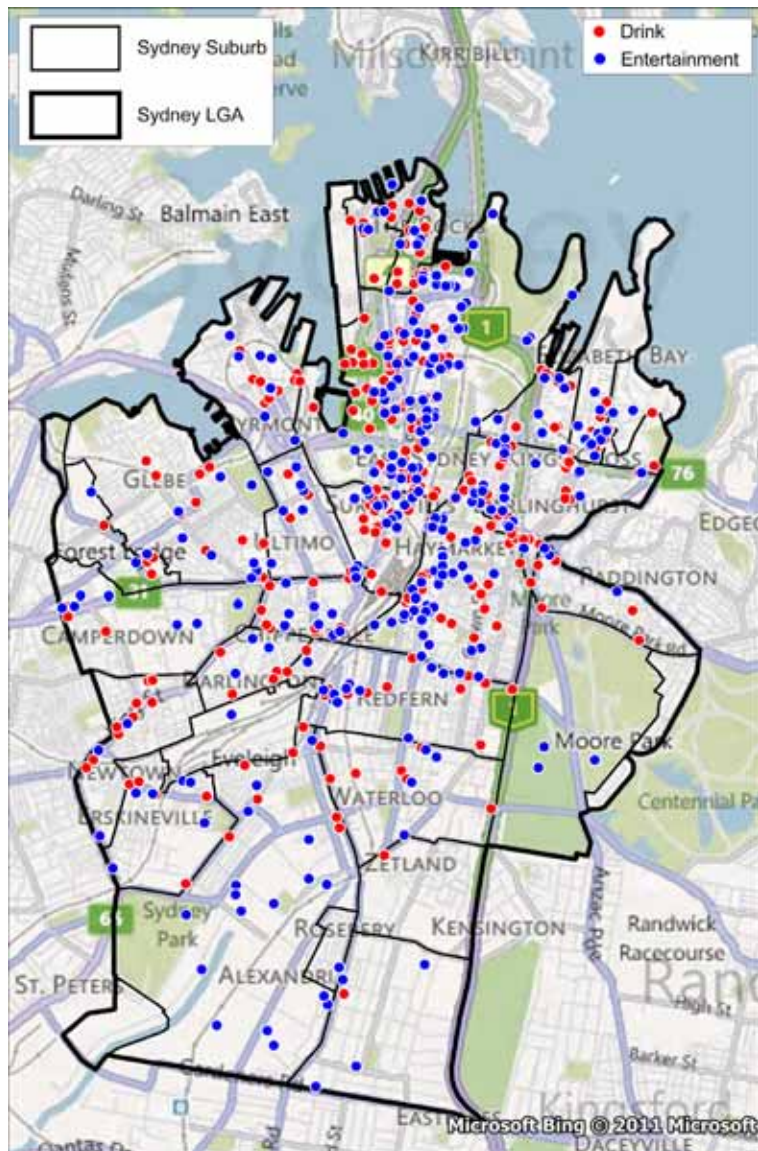
Whilst we are aware that research attaches great significance to the co location of drink and food it is simply obvious from these maps that there are not many places to go and that for the most part the collocated geographic distribution should be taken as a plus for the business levels of the LGA NTE.

What is missing from these maps are the detailed future initiatives which broaden the appeal of the geography at night and the more useful detail that would come from looking at similar map plots for the hours of 12 midnight and 3 a.m. in the morning. There will be much sparser opening and coverage at the hours when most problems occur.

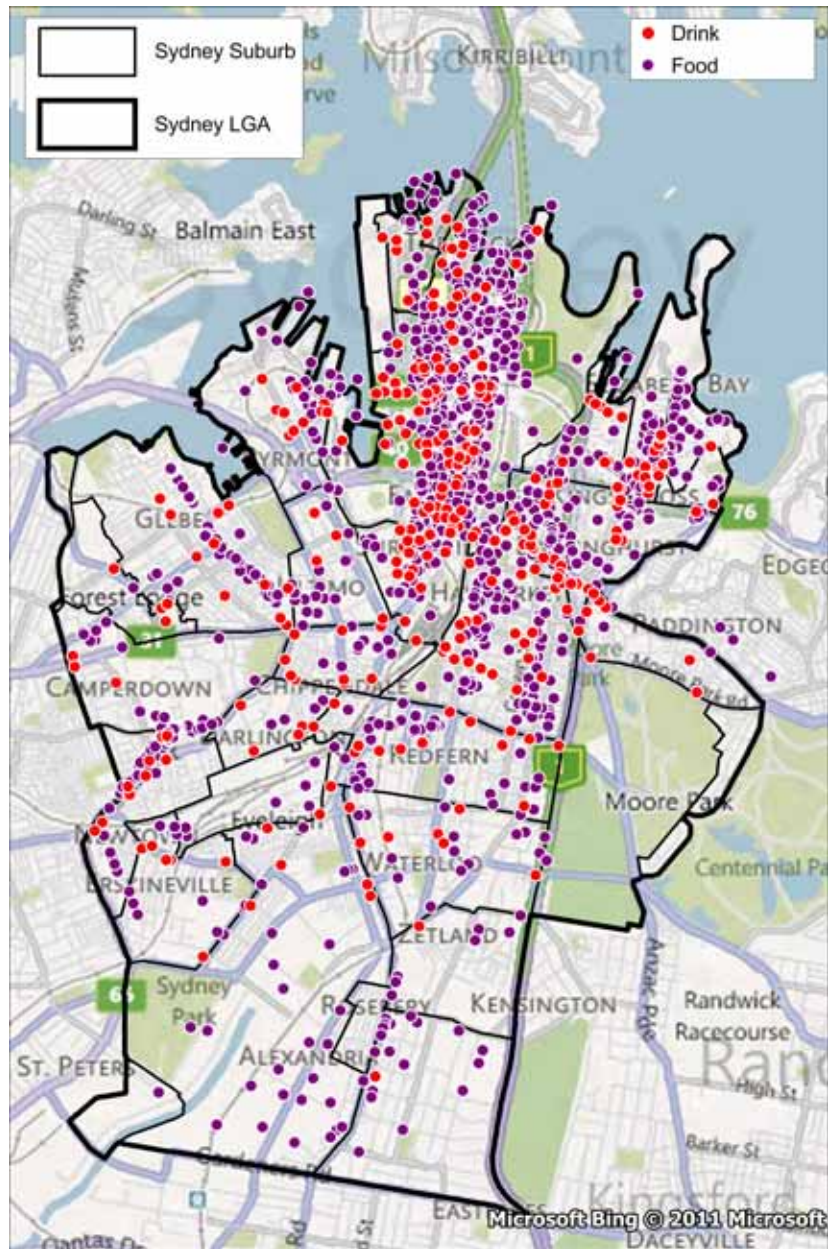
⁴⁵ ABS 6306.0 – Employee Earnings and Hours – Aug 2008 P22 Section 8 AI Persons

We have been made aware of the small bars programme which has much to commend it since it focuses on very small establishments where unbridled drinking is much less likely to go unchecked but we suggest that the creative initiative in this programme would be better served by a policy which encourages food consumption as much as drink intake and which also helps provide foci for evening entertainment that are not the bars in themselves. E.g. music and art in the bars or related external cultural events.

Figure 1: Spatial distribution of Food and Entertainment Firms in the NTE in LGA Sydney



Source: FES 2006 & TBR Observatory 2011

Figure 2: Spatial Distribution of Food and Drink Firms in the NTE in LGA Sydney

Source: FES 2006 & TBR Observatory 2011

8.2 Firms of the Future

An interesting discovery in this research is that both ABS and D & B manage data on firms that were not recorded by the FES study. The primary reason for this is that the firms are very small and in the case of the D & B data are not registered for GST. We have not had opportunity to examine these data in detail but even on the basis of the ABS figures they add 100% to the firm numbers. D & B data would suggest that this is a very conservative estimate.

We have applied the ABS figures for these organisations in Table 16 below alongside the figures so far reported in the main body of our research for employment.

This gives a clear indication of the proportional numbers and activities of these organisations.

In Table 17 below we have also made some estimate of the added sales value of these organisations.

At this stage we intend no more than a flag to be placed alongside this subject.

None of these figures form part of our key findings. We recognise that many of these organisations will be lifestyle, part time activities without diminishing the value that they could bring to this agenda.

In addition many of the firms could provide the enterprise basis for renewed or redirected activity.

TBR's original field of research was based upon the first global small firms research conducted using a sound statistical sample by David Birch at the Massachusetts Institute of Technology. Subsequent work has always reaffirmed the critical value of these small businesses in building the economic future.

Table 16: Contribution of Non-Employing firms to the NTE firm base - 2009

Activity	ANZSIC	Description	Employing	Non-Employing	Total
Drink	4520	Pubs, Taverns and Bars	230	80	310
	4123	Liquor Retailing	57	49	106
	Total		287	129	416
Entertainment	551	Motion Picture & Video	8	6	14
	900	Creative & Performing Arts	123	324	447
	911	Sports & Physical Recreation	95	115	210
	912	Horse & Dog Racing	4	3	7
	913	Amusement & Other Recreation	6	8	14
	920	Gambling Activities	27	15	42
	4530	Clubs (Hospitality)	41	10	50
	9534	Brothel Keeping & Prostitution	18	33	51
	Total		322	514	835
Food	4511	Cafes & Restaurants	1,617	416	2,033
	4512	Takeaway Food Services	525	172	697
	Total		2,141	588	2,729
	Core Total		2,750	1,231	3,981
	Non-Core Total		4,491	3,140	7,630
	Total NTE		7,240	4,371	11,611
	Total Non-NTE		12,120	15,242	27,362
	Total Economy		19,360	19,613	38,973

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_8.2)

In Table 17 below we see how important these small organisations might be in considering development policy for Creative and Performing Arts and Sports and Physical Recreation.

Table 17: Contribution of Non-Employing firms to the NTE Turnover (A\$m) base - 2009

Activity	ANZSIC	Description	Employing	Non-Employing	Total
Drink	4520	Pubs, Taverns and Bars	\$319.8	\$6.8	\$326.6
	4123	Liquor Retailing	\$105.2	\$13.3	\$118.5
	Total		\$425.0	\$20.1	\$445.1
Entertainment	551	Motion Picture & Video	\$85.0	\$2.5	\$87.5
	900	Creative & Performing Arts	\$286.4	\$44.9	\$331.3
	911	Sports & Physical Recreation	\$98.4	\$16.0	\$114.4
	912	Horse & Dog Racing	\$5.3	\$0.4	\$5.7
	913	Amusement & Other Recreation	\$2.8	\$1.0	\$3.8
	920	Gambling Activities	\$307.4	\$2.1	\$309.4
	4530	Clubs (Hospitality)	\$68.9	\$0.8	\$69.7
	9534	Brothel Keeping & Prostitution	\$14.4	\$3.3	\$17.7
	Total		\$868.6	\$71.1	\$939.7
Food	4511	Cafes & Restaurants	\$1,157.9	\$35.1	\$1,192.9
	4512	Takeaway Food Services	\$250.6	\$14.5	\$265.1
	Total		\$1,408.5	\$49.6	\$1,458.1
		Core Total	\$2,702.1	\$140.7	\$2,842.8
		Non-Core Total	\$12,478.4	\$656.6	\$13,135.0
		Total NTE	\$15,180.5	\$797.4	\$15,977.8
		Total Non-NTE	\$68,062.8	\$3,628.0	\$71,690.8
		Total Economy	\$83,243.3	\$4,425.4	\$87,668.7

Source: Combined FES/ABS 2006-2009 (TBR Ref: W4/Sec_8.2)

Overall we measure that these very small firms add c\$140 million in sales turnover to the NTE.

The figure itself is less significant than that fact that we have c1200 one person firms with average turnover in the region of \$140,000 and we are reasonably sure that these figures understate the actual position.

We will return to this subject in our conclusions and recommendations.

8.3 Costs in Detail

8.3.1 Introduction

This section provides an analysis of the related costs that directly and indirectly impact upon the Sydney LGA. They are assumed to relate directly to the impact of servicing the core NTE whether that is infrastructure support, regulation or addressing the negative impacts of anti social behaviour.

8.3.2 Health Costs

Related Tables will show the size and distribution of health costs of the Sydney LGA including

- Alcohol-related hospital admissions, Staff costs, Ambulance Services etc.

St Vincent's

The overall cost of admissions adjusted for inflation and an increase in overall patient volumes was, for 2009/10, around \$780k.

Table 18: Costs of Alcohol-Related Admissions to St Vincent's Hospital

Costs of alcohol-related injury and intoxication admissions to St Vincent's Hospital	Output
Total admissions to St Vincent's ED during the 2005 study period	4,878
Number of days over which the study was conducted in 2005	56
Number of <i>injury</i> admissions to St Vincent's ED during the 2005 study period which were alcohol-related	241
Average cost of each alcohol-related <i>injury</i> admission	\$263.61
Average daily number of related-related <i>injuries</i> admissions at St Vincent's ED (i.e. 241 / 56)	4
Annual number of <i>injury</i> admissions to at St Vincent's ED which were alcohol-related (i.e. 4 x 365)	1,571
Total cost of annual alcohol-related <i>injury</i> admissions at St Vincent's	\$414,077
Number of <i>intoxication</i> admissions to St Vincent's ED during the 2005 study period which were alcohol-related	66
Average daily number of alcohol <i>intoxication</i> admissions at St Vincent's ED (i.e. 66 / 56)	1.2
Annual number of <i>intoxication</i> admissions to St Vincent's ED which were alcohol-related (1.2 x 365)	430
Average cost of each alcohol-related <i>intoxication</i> admission	\$220
Total cost of annual alcohol related <i>intoxication</i> admissions at St Vincent's	£94,654
Total cost of all alcohol-related admission at St Vincent's 2005	\$508,731
Increase from 2005 to 2009/10 in all types of admissions at St Vincent's	32.1%
Increase in total costs from 2005 to 2009/10 based on 32.1% rise in general admissions	\$672,033
Increase in inflation from 2005 to 2009/10 (compound RBA figures)	15.8%
Total equivalent cost for 2009/10 of all alcohol-related admission to St Vincent's Hospital	\$778,215

Source:

As noted above, we have broken down the costs by hospital. Because St Vincent's is the hospital most associated with the LGA's NTE. Because this is the only study where we have data for ED admissions on any scale, this is the most appropriate place to begin the analysis.

The BOCSAR study of St Vincent's published in 2005 observed 4,878 general admissions over two 28-day periods – one in September 2004 and one in February 2005.

Of these 4,878 admissions, the study noted that 1,345 of them were 'positive' within the terms of the study, i.e. presenting individuals appeared to observing staff that they were alcohol-related admissions based on injury or intoxication.

However, for the reasons set out in section 5, they were only conclusively able to ask or breathalyse 241 people regarding their alcohol consumption.

This part of the methodology and the costings model (which the researchers adjusted for inflation) was based on a Flinders Medical Centre study, which assessed both the cost of care and created a model for how to decide if somebody is presenting based on an alcohol-related incident.

NSW's own 'Cost of Care Standards', which the study also deploys, gives a higher costing (by about 50%), for the reasons set out in section 5.

However for the purposes of this study, we have used the lower, more conservative estimate, because, as highlighted previously, there are clear areas where the figures in the BOCSAR study are not directly correlative with the NTE. So, this allows us to be more confident that we are not overestimating the impact when the figures are finally presented.

The total (lowest) cost of annual alcohol-related injury admissions (2005) was \$414k and of intoxications, \$95k. The total estimate of Emergency Department admissions in 2005 to St Vincent's due to alcohol-related problems was therefore \$509k.

However, this does not take account of either increased patient volumes or inflation by 2009/10, the year of our own study's benchmark. Therefore we have adjusted this for the increase in patients (almost a third at St Vincent's) and inflation (compounded between 2005 and 2010 based on rates published by the Reserve Bank of Australia). This figure sums to c\$778k.

Royal Prince Alfred

Below are figures based on St Vincent's standards which have been transposed for patient volumes at the Royal Prince Alfred's ED for 2009/10.

Table 19: Costs of Alcohol-Related Admissions to Royal Prince Alfred Hospital

Costs of alcohol-related injury and intoxication admissions to Royal Prince Alfred Hospital	Output
Total admissions to the RPA ED in 2010	51,000
Annual total of RPA <i>injury</i> admissions which may be alcohol-related, based on St Vincent study figures	2,520
Annual total of RPA <i>intoxications</i> admissions which may be related-related at based on St Vincent study figures	690
Total annual average alcohol-related admissions at RPA	3,210
Average cost of each related <i>injury</i> admission (taken from 2005 St Vincent's study)	\$264
Average cost of each alcohol <i>intoxication</i> admission (taken from 2005 St Vincent's study)	\$220
Total cost of annual alcohol-related injury admissions at RPA (at 2005 costs)	\$665,196
Total cost of annual alcohol related intoxication admissions at RPA (at 2005 costs)	\$151,808
Total cost of all alcohol-related admissions at RPA 2005	\$817,004
Increase in inflation from 2005 to 2009/10 (compound RBA figures)	15.8%
Total equivalent cost for 2009/10 of all alcohol-related admission to RPA Hospital	\$946,090

Source:

The number of admissions at RPA is higher than St Vincent's. However, there is one major caveat to this. While the RPA does receive a large volume of patients at night and from the city's NTE, it is not located as close to the NTE activity as St Vincent's. Therefore, its proportion of admissions related to alcohol misuse in the NTE is probably lower.

However, because we have no comparable RPA study to the St Vincent's one, then we felt it was more robust to use the attributions from St Vincent's. Nevertheless, while this is likely to overestimate the numbers of ED presentations at RPA related to alcohol, it is not unreasonable to believe that this is a fair reflection of reality. This is because the figures we have taken from the St Vincent's study are the very lowest the study presents.

Therefore, the adjusted ED staff costs at RPA for dealing annually with alcohol related injuries and intoxications are in the region of \$950k. This figure includes an adjustment for inflation (compounded)

though not for increased patient numbers because the figure of 51,000 is based on the 60,000 patients admitted in 2010 (minus 9,000 children, i.e. 51,000).

Total ED costs of alcohol related presentations in Sydney LGA

The combined costs of alcohol-related admissions to both main Sydney LGA hospitals' EDs in 2010 are c\$1.7m dollars. This is not dissimilar to the median figure of the police staff costs, though as noted above, the on-costs of those who exit A&E and who need further treatment are likely to be much higher than the ED costs themselves.

Table 20: Costs of Alcohol-Related Admissions to both Sydney LGA Hospitals

Costs of alcohol-related injury and intoxication admissions to both Sydney LGA Hospitals	Output
Total combined 2009/10 alcohol related admission for St Vincent's and RPA adjusted for inflation	\$1,724,305

Source:

8.3.3 Crime & Justice Costs

Staff costs

As we noted in Section 7 we will be using the approximate number of police officers on a typical night deployed within Sydney LGA as our proxy for dividing both police staff costs attributable to the LGA's NTE, as well as apportioning a share of the fixed costs of running the police service of NSW overall.

The first table below shows staff costs for those officers working within the Sydney LGA night-time economy. The total staff cost annually is approximately \$300k.

Table 21: Officer Time Costs for Alcohol-Related Tasks – Sydney LGA

Calculation 1: Sydney LGA, 'night' time officer time costs for alcohol-related tasks	Output
Total IMA police officer hours surveyed in 2005 (all tasks, day and night)	41,562
Number of days over which the study was conducted	56
Number of IMA officer hours spent per day (day and night) on all tasks (i.e. 41,562 / 56) during study	742
Average percentage of IMA officers who are deployed within Sydney LGA (current estimate)	70%
Average number of police officer hours spent daily (day and night) on all tasks in Sydney LGA over study period	520
Percentage of officer time spent on all tasks post 1pm, i.e. 'night' (study average)	33.1%
Number of officer hours spent per 'night' (i.e. post 1pm) within the Sydney LGA on all tasks	172
Average percentage of officer time spent on alcohol related issues post 1pm (NSW study average)	12.2%
Number of hours post 1pm spent each 'night' on alcohol-related issues within Sydney LGA	21
Number of hours per 'night' spent dealing with alcohol-related issues X number of days in year (365)	7,656
Average cost of police salary per hour (mean of typical officer team pay rates)	\$33.55
Average penalty rate for later shifts	\$3.49
Typical 'night' time team rate	\$37.04
Night team rate + payroll tax at 5.75%	\$39.17
Number of hours spent over 1 year in LGA on alcohol-related issues at night x 2009/10 wage rate	\$299,899

Source:

However this is likely to be a substantial underestimate for the following reasons:

1. The data taken from the NRDELf study is only applicable to alcohol-related incidents. Also it does not include the general patrolling of the LGA at night that will consume considerable police time and will be focused mainly in the entertainment zones of the NTE rather than the city generally.

2. Similarly, it does not include incidents that are unrelated to alcohol, but which are linked to the existence of an NTE, such as monitoring and arresting drug dealers, serious criminals who use the NTE as a cover for their activities, dealing with unlicensed prostitution and so on.
3. NRDLERF's methodology acknowledges that officers may have failed to record in their survey instruments where activity alcohol-related on every occasion.

However, while these are likely to be contributory factors in substantial underestimating, there will also be some overestimates. This is because while alcohol-related incidents are a useful proxy for both proactive and relative policing in the NTE, the figures also include non-NTE incidents that are alcohol-related. These will include domestic violence, drink driving (where individuals have not been to a licensed premises but consume in-home) as well as other incidents where the police have been called, alcohol is involved, but it cannot really be considered NTE, e.g. underage drinking in neighbourhoods.

Therefore, an alternative way of examining the police resource required to manage the LGA at night is to take all the time spent by officers arriving on duty post-1pm (most of whom are working 12 hrs shifts from 6.30pm) and attributing it to the NTE.

As the table below shows, this gives a higher cost of policing the LGA at night - almost \$2.5m dollars.

Table 22: Officer Time Costs for ALL Tasks – Sydney LGA

Calculation 2: Sydney LGA, 'night' time officer time costs for all tasks	Output
Total IMA police officer hours surveyed in 2005 (all tasks, day and night)	41,562
Number of days over which the study was conducted	56
Number of IMA officer hours spent per day (day and night) on all tasks (i.e. 41,562 / 56)	742
Average percentage of IMA officers who are deployed within Sydney LGA	70%
Average number of Sydney LGA officer hours spent daily (day and night) on all tasks over study period	520
Percentage of officer time spent on all tasks post 1pm, i.e. 'night' (study average)	33.1%
Number of officer hours spent per 'night' (i.e. post 1pm) within the Sydney LGA on all tasks	172
Number of hours per 'night' spent dealing with alcohol-related issues X number of days in year (365)	62,766
Average cost of police time per hour (Mean of all officer pay rates in 2005)	\$33.55
Average penalty rate for later shifts	\$3.49
Typical 'night' time team rate	\$37.04
Night team rate + payroll tax at 5.75%	\$39.17
Number of hours spent over 1 year in LGA on policing night x 2009/10 wage rate	\$2,458,548

Source: ?

However whilst focusing on *alcohol-related* incidents alone is almost certainly an *underestimate* of police staff resources used at night in the LGA to manage its NTE, the method above using all police staff time at night is almost certainly an overestimate.

This is because it includes all police time from 6.30pm to 6.30am. And this includes police operations that are not NTE related, such as burglaries, road traffic accidents (where alcohol is not involved), distressed individuals, theft of vehicles and theft from vehicles (although there is an argument that if they are parked in or near NTE zones then these are possibly NTE-related because they wouldn't be there without it) and so on.

A 'true' figure is somewhere between these two calculations. Perhaps close to \$1m. However, for the purposes of this study, we err on the side of caution and attribute the smaller figure in our overall calculations.

Operating costs

We have noted previously that it is difficult to attribute a proportion of the non-staff operating costs of the NSW Police service to Sydney LGA NTE. We attempt this with the data available, both from the NRLDEF study and the annual (2009/10) accounts and additional materials provided by NSW Police itself.

Below are the force's overall costs. These include 'operating expenses' (from vehicles to training; buildings to fuel bills). It also includes losses on capital assets, grants given out to other organisations, e.g. community groups, the cost of borrowing monies and all other expenses that do not fit any of these accounting lines.

Table 23: Total NSW Police Non-Staff Expenditure - 2009/10

Total NSW Police <i>non-staff</i> expenditure in 2009/10	Output
Operating expenses (non-staff)	\$415,656,000
Depreciation and amortization	\$115,226,000
Grants and subsidies	\$3,795,000
Finance costs	\$12,498,000
Other expenses	\$2,939,000
Total NSW Police non-staff expenditure in 2009/10	\$550,114,000

Source: NSW 2009/10 Accounts

Overall the non-staff costs for NSW Police in 2009/10 were approximately \$550m. The force operated a small surplus and nearly all of its income came from the state government, with a very small amount of revenue from sales of goods and services and income on financial balances.

Therefore, without getting into complicated accounting procedures it is not possible to work out exactly how much of the cost is borne by the taxpayer. But it is perfectly reasonable to say that of the \$550m nearly all is a cost to residents of NSW.

Therefore, if we use the same LGA proxies as we used for staff costs – both for 'alcohol-related incidents' (the first table) and for 'police activity at night' (the second), we get the following shares of the overall NSW non-staff budget.

Table 24: Share of NSW Police non-staff costs attributed against alcohol-related activity in Sydney LGA at night 2009/10

Share of NSW Police non-staff costs attributed against <i>alcohol-related</i> activity in Sydney LGA at night 2009/10	Output
Total number of hours spent by NSW Police officers on all tasks, day and night over the study period	130,300
Number of hours from NSW Police total spent on all tasks, day and night but <i>within</i> the IMA over the study period	41,562
Average percentage of officers from IMA who are deployed within Sydney LGA (current estimation)	70%
Number of officer hours from IMA who are deployed within Sydney LGA (current estimation) (i.e. 70% of 41,562)	29,093
Percentage of officer time spent on all tasks post 1pm, i.e. 'night' (study average)	33.1%
Total number of hours spent by NSW Police officers within Sydney LGA on all tasks <i>at night</i> over the study period	9,630
Average percentage of officer time spent on <i>alcohol-related tasks, post 1pm (i.e. 'night')</i> (NSW study average)	12.2%
Average number of officer hours spent on alcohol-related tasks, post 1pm (NSW study average) during study period	1,175
Total percentage of all NSW police officer time spent within the LGA at night and on alcohol-related tasks	0.9%

Proportion of NSW Police budget (non-staff) attributable to policing alcohol-related tasks in Sydney LGA at night (i.e. 0.9% of \$550.114m)	\$4,960,102
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Table 25: Share of NSW Police non-staff costs attributed against all night-time activity in Sydney LGA 2009/10

Share of NSW Police non-staff costs attributed against <i>all night-time</i> activity in Sydney LGA 2009/10	Output
Total number of hours spent by NSW Police officers on all tasks, day and night over study period	130,300
Number of hours from total above spent on all tasks day and night but <i>within</i> the IMA over the study period	41,562
Average percentage of officers from IMA who are deployed within Sydney LGA (current estimation)	70%
Average of officer hours from IMA who are deployed within Sydney LGA (current estimation) (i.e. 70% of 41,562)	29,093
Average percentage of officer time spent on <i>all tasks, post 1pm</i> (NSW study average)	33.1%
Number of all NSW Police hours for <i>all tasks</i> , day and night attributable to Sydney LGA (i.e. 33.1% of 29,093)	9,630
Percentage of NSW Police time spent by officers in Sydney LGA at 'night' (i.e. 33.1% of 22.3%)	7.4%
Proportion of overall <i>non-staff</i> budget attributable to the policing of Sydney LGA at night (i.e. 7.4% of \$550.114m)	\$40,656,572

As we noted previously, the figures are much higher for the share of expenditure when all night-time police activity within the LGA is taken into account, as opposed to alcohol-related. (I.e. approximately \$41m against \$5m).

The justification for this is that while the figure reasonably representative at the top line. And, while it would need more investigation if we were to rely on it for, say, accounting purposes, for the purposes of this study, there is no doubt that by reducing the level of negative externalities within the NTE, then the operational costs of NSW Police would themselves be reduced.

For example, the force would require fewer vehicles, less training and equipment for staff, fewer holding cells and so. While these are 'variable' costs. There would be some 'fixed' costs that would not diminish, for example, police headquarters buildings, ICT systems, outside consultants, annual accounting fees and so on, hence why this large figure is something of an over estimate.

8.3.4 Transport Costs

Related Tables will show the size and distribution of transport costs of the Sydney LGA: CityRail, Bus, Ferries, Taxis.

Following discussion with the NSW Bureau of Transport Statistics we decided to commission data which would help everyone understand the relative movement, volumes and purposes which lead people to be out and about after 6 p.m. at night compared to the same picture for the day time economy between 6 a.m. and 6 p.m. The commissioned statistics are based upon data covering two five-year periods in order to provide a level of comparison that rests upon a large statistical sample.

It may not be correct to the nearest decimal point but it is robust

The periods chosen were up to 2005/6 and up to 2009/10.

This data contains a great deal of useful information for the future management of the Night Time Economy. It has not been possible to consider every aspect of the information in this study.

For instance we understand that the Bureau holds data that is distributed across age ranges and together with reason for travel we believe that this would be helpful in furthering understanding of the extent to which proportions of different age ranges are buying in to the current offer of the NTE in the LGA and to help promote thinking to improve the spread of age range engagement.

Here we focus upon statistics which add a different perspective to our view of the relative size of the NTE compared to the day time economy and to the modes of transport adopted in those periods; the difference between activity levels at weekends and during weekdays and within the four quartiles of the night time period together with some statistical insights of relative volumes of people who are out and about for social and shopping reasons.

The picture we get is that of an NTE that is

- Busy but only to the point of engaging with c15% of city inhabitants – be those residents, workers or tourists.
- Busier by about 50% in the weekend time periods
- Comprising participants who are c50% based in the city already and have little need for transport
- Not particularly demanding of the scale of the public transport media – although the levels of service provided may be the cause of problems as people try to get home
- Quite dependent on private taxi services at all times
- More dependant, where they travel from outside the LGA, on private transport
- Very active from 6 p.m. to 12 p.m. but quite modest in activity after that point
- Pretty unconnected with retail, with very low levels of activity from 6 p.m. to 9 p.m.

Tables 18 and 19 below distinguish between the weekday proportions of trips that are taken for social purposes comparing 2005/6 with 2009/10. We see that the overall level of post 6 p.m. social trips is around 30 to 40%% of all post 6 p.m. trips and that in the latest period the numbers have increased by about 12%.

The 3-hour time bands show that most of these trips occur between 6 p.m. and 9 p.m.

The compelling statistic is that only 4% of inbound trips are suggested as being for social reasons.

Table 18: Total number of weekday (Sun-Wed) trips for social & recreational reasons – 2005/06

Travelling Period	Trips in to Sydney LGA			Trips within Sydney LGA		
	Social	Total Trips	Proportion	Social	Total Trips	Proportion
Between 6am and 6pm	77,345	475,700	16.3%	150,287	606,314	24.8%
Between 6pm and 6am	25,481	77,434	32.9%	38,495	101,197	38.0%
<i>Between 6pm and 9pm</i>	<i>17,932</i>	<i>45,466</i>	<i>39.4%</i>	<i>22,593</i>	<i>64,180</i>	<i>35.2%</i>
<i>Between 9pm and 12am</i>	<i>4,424</i>	<i>16,746</i>	<i>26.4%</i>	<i>8,207</i>	<i>20,403</i>	<i>40.2%</i>
<i>Between 12am and 3am</i>	<i>2,353</i>	<i>5,825</i>	<i>40.4%</i>	<i>3,860</i>	<i>8,949</i>	<i>43.1%</i>
<i>Between 3am and 6am</i>	<i>773</i>	<i>9,397</i>	<i>8.2%</i>	<i>3,834</i>	<i>7,666</i>	<i>50.0%</i>
Total Trips - Weekdays	102,826	553,134	18.6%	188,782	707,511	26.7%

Source: Sydney Bureau of Transport 2005/06 (TBR Ref: W5/2005-06)

Table 19: Total number of weekday (Sun-Wed) trips for social & recreational reasons – 2009/10

Travelling Period	Trips in to Sydney LGA			Trips within Sydney LGA		
	Social	Total Trips	Proportion	Social	Total Trips	Proportion
Between 6am and 6pm	78,643	505,778	15.5%	180,956	737,737	24.5%
Between 6pm and 6am	25,241	82,806	30.5%	43,326	125,335	34.6%
<i>Between 6pm and 9pm</i>	<i>20,123</i>	<i>46,868</i>	<i>42.9%</i>	<i>27,864</i>	<i>81,352</i>	<i>34.3%</i>
<i>Between 9pm and 12am</i>	<i>2,354</i>	<i>18,731</i>	<i>12.6%</i>	<i>7,426</i>	<i>25,056</i>	<i>29.6%</i>
<i>Between 12am and 3am</i>	<i>1,870</i>	<i>5,319</i>	<i>35.2%</i>	<i>5,735</i>	<i>13,488</i>	<i>42.5%</i>
<i>Between 3am and 6am</i>	<i>894</i>	<i>11,888</i>	<i>7.5%</i>	<i>2,301</i>	<i>5,441</i>	<i>42.3%</i>
Total Trips - Weekdays	103,884	588,584	17.6%	224,282	863,072	26.0%

Source: Sydney Bureau of Transport 2009/10 (TBR Ref: W5/2009-10)

The next two tables look at the same data for the weekends and the main distinction is that in the first time period the level of social trips increases to well over the 250% level of midweek but this is still only just over 10% of all trips.

Table 20: Total number of weekend (Thurs-Sat) trips for social & recreational reasons – 2005/06

Travelling Period	Trips in to Sydney LGA			Trips within Sydney LGA		
	Social	Total Trips	Proportion	Social	Total Trips	Proportion
Between 6am and 6pm	94,520	504,288	18.7%	160,858	670,445	24.0%
Between 6pm and 6am	69,892	126,039	55.5%	71,122	148,610	47.9%
<i>Between 6pm and 9pm</i>	<i>51,396</i>	<i>83,361</i>	<i>61.7%</i>	<i>50,119</i>	<i>98,737</i>	<i>50.8%</i>
<i>Between 9pm and 12am</i>	<i>15,245</i>	<i>29,213</i>	<i>52.2%</i>	<i>16,800</i>	<i>32,032</i>	<i>52.4%</i>
<i>Between 12am and 3am</i>	<i>2,303</i>	<i>5,586</i>	<i>41.2%</i>	<i>2,747</i>	<i>10,580</i>	<i>26.0%</i>
<i>Between 3am and 6am</i>	<i>947</i>	<i>7,876</i>	<i>12.0%</i>	<i>1,456</i>	<i>7,262</i>	<i>20.1%</i>
Total Trips – Weekend	164,412	630,327	26.1%	231,980	819,055	28.3%

Source: Sydney Bureau of Transport 2005/06 (TBR Ref: W5/2005-06)

As between the first and second periods there is an increase in social trips only amongst respondents already living or domiciled as tourists.

Table 21: Total number of weekend (Thurs-Sat) trips for social & recreational reasons – 2009/10

Travelling Period	Trips in to Sydney LGA			Trips within Sydney LGA		
	Social	Total Trips	Proportion	Social	Total Trips	Proportion
Between 6am and 6pm	89,503	522,267	17.1%	204,150	784,779	26.0%
Between 6pm and 6am	66,556	126,890	52.5%	80,426	189,805	42.4%
<i>Between 6pm and 9pm</i>	<i>49,458</i>	<i>83,599</i>	<i>59.2%</i>	<i>54,408</i>	<i>125,172</i>	<i>43.5%</i>
<i>Between 9pm and 12am</i>	<i>14,357</i>	<i>30,747</i>	<i>46.7%</i>	<i>21,972</i>	<i>48,484</i>	<i>45.3%</i>
<i>Between 12am and 3am</i>	<i>2,210</i>	<i>3,574</i>	<i>61.8%</i>	<i>3,013</i>	<i>7,447</i>	<i>40.5%</i>
<i>Between 3am and 6am</i>	<i>531</i>	<i>8,970</i>	<i>5.9%</i>	<i>1,033</i>	<i>8,702</i>	<i>11.9%</i>
Total Trips – Weekend	156,058	649,157	24.0%	284,576	974,584	29.2%

Source: Sydney Bureau of Transport 2009/10 (TBR Ref: W5/2009-10)

8.3.5 A Shopping Insight

The four tables below compare the numbers of respondents citing shopping as the reason for their post 6 p.m. trips as between 2005/6 and 2009/10 and comparing week days and weekends.

Table 26: Total number of weekday (Sun-Wed) trips for shopping visits – 2005/06

Travelling Period	Trips in to Sydney LGA		Trips out of Sydney LGA		Trips within Sydney LGA	
	Shopping	Proportion	Shopping	Proportion	Shopping	Proportion
Between 6am and 6pm	32,003	93.7%	32,864	91.3%	113,068	90.3%
Between 6pm and 6am	2,155	6.3%	3,122	8.7%	12,208	9.7%
<i>Between 6pm and 9pm</i>	<i>2,081</i>	<i>6.1%</i>	<i>2,785</i>	<i>7.7%</i>	<i>10,926</i>	<i>8.7%</i>
<i>Between 9pm and 12am</i>	<i>.</i>	<i>.</i>	<i>335</i>	<i>0.9%</i>	<i>892</i>	<i>0.7%</i>
<i>Between 12am and 3am</i>	<i>74</i>	<i>0.2%</i>	<i>.</i>	<i>.</i>	<i>.</i>	<i>.</i>
<i>Between 3am and 6am</i>	<i>.</i>	<i>.</i>	<i>.</i>	<i>.</i>	<i>390</i>	<i>0.3%</i>
Total Trips - Weekdays	34,158	100.0%	35,986	100.0%	125,276	100.0%

Source: Sydney Bureau of Transport 2005/06 (TBR Ref: W5/2005-06)

The most important point about all these statistics is that the overall levels of 'shopping' trips are very small indeed. On weekdays in 2005/6 only c6% of all inbound trips are for shopping purposes and inside the LGA whilst the figure rises to c9% much of this would be local provision shopping.

The percentage for post 6.p.m is well under 1% of all trips

5 years later (Table 24 below) these figures have hardly changed.

Table 23: Total number of weekday (Sun-Wed) trips for shopping visits – 2009/10

Travelling Period	Trips in to Sydney LGA		Trips out of Sydney LGA		Trips within Sydney LGA	
	Shopping	Proportion	Shopping	Proportion	Shopping	Proportion
Between 6am and 6pm	38,573	95.2%	38,214	87.4%	128,827	90.3%
Between 6pm and 6am	1,954	4.8%	5,511	12.6%	13,806	9.7%
<i>Between 6pm and 9pm</i>	<i>1,445</i>	<i>3.6%</i>	<i>4,280</i>	<i>9.8%</i>	<i>11,608</i>	<i>8.1%</i>
<i>Between 9pm and 12am</i>	<i>509</i>	<i>1.3%</i>	<i>822</i>	<i>1.9%</i>	<i>1,163</i>	<i>0.8%</i>
<i>Between 12am and 3am</i>	<i>.</i>	<i>.</i>	<i>182</i>	<i>0.4%</i>	<i>1,036</i>	<i>0.7%</i>
<i>Between 3am and 6am</i>	<i>.</i>	<i>.</i>	<i>227</i>	<i>0.5%</i>	<i>.</i>	<i>.</i>
Total Trips - Weekdays	40,527	100.0%	43,725	100.0%	142,633	100.0%

Source: Sydney Bureau of Transport 2009/10 (TBR Ref: W5/2009-10)

The weekend figures in Tables 25 and 26 below follow the same pattern although there is a slight increase in 2009/10 in shopping trips flagged as within the LGA.

Table 24: Total number of weekend (Thurs-Sat) trips for shopping visits – 2005/06

Travelling Period	Trips in to Sydney LGA		Trips out of Sydney LGA		Trips within Sydney LGA	
	Shopping	Proportion	Shopping	Proportion	Shopping	Proportion
Between 6am and 6pm	49,537	93.4%	39,632	86.2%	128,763	91.2%
Between 6pm and 6am	3,513	6.6%	6,346	13.8%	12,369	8.8%
<i>Between 6pm and 9pm</i>	<i>3,179</i>	<i>6.0%</i>	<i>5,545</i>	<i>12.1%</i>	<i>9,810</i>	<i>7.0%</i>
<i>Between 9pm and 12am</i>	<i>333</i>	<i>0.6%</i>	<i>412</i>	<i>0.9%</i>	<i>1,243</i>	<i>0.9%</i>
<i>Between 12am and 3am</i>	<i>.</i>	<i>.</i>	<i>.</i>	<i>.</i>	<i>927</i>	<i>0.7%</i>
<i>Between 3am and 6am</i>	<i>.</i>	<i>.</i>	<i>385</i>	<i>0.8%</i>	<i>389</i>	<i>0.3%</i>
Total Trips - Weekend	53,050	100.0%	45,978	100.0%	141,132	100.0%

Source: Sydney Bureau of Transport 2005/06 (TBR Ref: W5/2005-06)

In all cases the pattern is a small level of retail trips between 6 p.m. and 9 p.m. There is scarcely any retail activity of any sort after 9 p.m. and none to which any statistical significance can be attached.

This position may indicate a considerable opportunity to the LGA economy if retailers can be persuaded to add their contribution to the NTE. As we have seen in other places the benefits outweigh the opportunities to increase retail sales since they bring different groups of people into the NTE.

This may not simply be a question of extending opening hours but new and novel ways of integrating the retail economy with the night time economy/

Table 27: Total number of weekend (Thurs-Sat) trips for shopping visits – 2009/10

Travelling Period	Trips in to Sydney LGA		Trips out of Sydney LGA		Trips within Sydney LGA	
	Shopping	Proportion	Shopping	Proportion	Shopping	Proportion
Between 6am and 6pm	42,549	94.2%	40,243	81.9%	139,137	89.3%
Between 6pm and 6am	2,629	6.5%	8,902	20.4%	16,646	11.7%
<i>Between 6pm and 9pm</i>	<i>2,629</i>	<i>5.8%</i>	<i>6,703</i>	<i>13.6%</i>	<i>13,932</i>	<i>8.9%</i>
<i>Between 9pm and 12am</i>	<i>.</i>	<i>.</i>	<i>1,484</i>	<i>3.0%</i>	<i>681</i>	<i>0.4%</i>
<i>Between 12am and 3am</i>	<i>.</i>	<i>.</i>	<i>406</i>	<i>0.8%</i>	<i>906</i>	<i>0.6%</i>
<i>Between 3am and 6am</i>	<i>.</i>	<i>.</i>	<i>315</i>	<i>0.6%</i>	<i>1,126</i>	<i>0.7%</i>
Total Trips – Weekend	45,179	100.0%	49,144	100.0%	155,783	100.0%

Source: Sydney Bureau of Transport 2009/10 (TBR Ref: W5/2009-10)

8.3.6 Council Service Costs

The detailed costs of \$31 million separate out both *direct* and *indirect* costs.

The majority of council costs are *direct*, i.e. those incurred by the council in dealing directly with planning and managing its NTE. An example of this is the NYE events, which cost around \$5m and as these take place post-6pm we have attributed all of this to the NTE. Another example of a direct cost is the functioning of the city council operated aquatics centres after 6pm. As a proportion of their overall operational hours the NTE proportion of these centres tends to be about 10-20% and so these have been apportioned appropriately.

Logically, virtually all services attributed to the NTE are a cost rather than a benefit. However, Safety remains a revenue generator due to grant funding from outside. *Indirect* costs included attributing a small percentage (usually 5% but dependent on each service) to services where there is an NTE component but where it is beyond the scope of our study to work these out. An example might be HR and workforce services. Clearly this doesn't have a direct cost, however, there are a number of city workers who operate after dark.

Examples include security, city rangers, employees at council facilities and the like who require the same HR support services as those workers who contribute to the council's business during the day. Therefore 5% of this total is a moderate attribution and while it is unfortunate that we are not able to go into any further examination of each service area, this remains in our view and on balance a likely underestimate of the overall impact of the NTE on these types of general 'back office' services.

Ultimately the *indirect* costs are actually a benefit, because although they are substantial overall, the costs are slightly outweighed by income into the administration functions of the council e.g. where the council receives income from say enforcement action, grants or taxes.

The total cost of planning and managing the city's NTE represented just over 1% of the council's annual \$200m+ expenditure.

9 Conclusions

The key purpose of this research study was to inform the vision and action plan of the 20 year Night Time City Policy (NTCP) of the City of Sydney with essential information about the economic costs and benefits of the Night Time economy.

We do not claim to have exhaustively covered this agenda but we do claim to give the city the first clear indication of all these dynamics and from our previous work and wide literature review in this study we realise that this step probably places Sydney ahead of its competitors.

Our recommendations in Section 10 and our Technical recommendations in Section 11 are designed to help Sydney develop this position.

We have been able to provide a clear snapshot of the Night Time economy in 2009 within the context of the wider LGA, Greater Sydney and NSW picture.

Some readers may ask why not more recently than that?

The answer to this question is entirely related to the process of data acquisition from responsible managers of economic data such as the Australian Bureau of Statistics. All data suppliers are unable to share the information that they have earlier than the point at which they have been able to analyse it.

In Australia financial records for the year ending June 2011 are in many cases not yet filed.

In respect of 2010 the data collectors are still completing inclusion and verification processes.

It was for partly for this reason that we asked Dun & Bradstreet to supply information to the study. We know that as a private sector data collector and user D & B is able to share more recent information.

This information has been useful to our study particularly in the context of verifying sales values by types of NTE firm and in identifying the existence of the basement level of businesses which may play a bigger role in the future of the NTE as well as the wider economy (the micro businesses).

In meeting many obstacles in data collection we have been reminded of the continuing difficulties facing analysts of change in economic performance. Every supplier or stakeholder expects that one understands his or her data limitations or the obviousness of the case that they stand behind.

There are no data suppliers who have a complete picture of the NTE economy. The picture is created by an acceptable view of the activities that should be considered and the protocols that are agreed to be observed in assessing that data.

Conscious of the need to deliver a 'conservative and defensible' study the writers have not sought in any way to embellish views of what might be considered to be the Night Time Economy of LGA Sydney and have carefully left out numbers and subjects which merit consideration in the future but which might create controversy at this point since we know that other ways need to be found to deliver more precise measurements of, for example, the use of public transport after 6 p.m. or that part of the accommodation industry which actually serves the NTE.

Therefore we present this first snapshot of the Sydney LGA NTE believing that it provides the City Council and its stakeholders with the sound information it seeks to place the value of the NTE in perspective.

10 Policy Recommendations

This section of our report needs to begin with a caveat.

The primary objective of our work has been to identify the size and nature of the Sydney NTE on as recent a time line as we could identify. In fulfilling that objective it was also important to place the NTE economy in the context of the overall LGA economy and within the wider perspective of Metropolitan Sydney and New South Wales.

Having made this point we have been engaged with the NTE agenda for a number of years that has been long enough to help us realise that transferable knowledge only works if it recognises the primacy of the geography and dynamics under review. In conducting this study we have clearly developed an appreciation of the strengths and weaknesses of the Sydney NTE and we have also had occasion to experience and discuss how Sydney works as an NTE with the people we have met in the study process.

Therefore this section begins with an opinion and concludes by relating that opinion to the facts that have been identified in the study.

10.1 Opinion

The core proposition in this opinion is that Sydney LGA may have a much greater opportunity to grow its NTE than is presently the case.

Both in statistical terms and on the ground the Sydney LGA economy conveys an impression of scale and vitality as an international city. Nevertheless it is a city that empties at night. There are many more people who work in the LGA than actually live there and we suspect that once they have left the city that the attractions of the local community in which they live are a bigger dynamic.

The preponderant NTE activity in the LGA is dining or fast food – both of which go with a place on the move. Restaurants and Take Aways are far and away the single biggest activity in the night time economy and we suspect also in the daytime leisure economy. This is because LGA Sydney, whatever the international reputation of Metropolitan Sydney is predominantly a place where people work.

It would be valuable to investigate the comparative work, play and live dimensions of the people of LGA Sydney with other major urban centres without being over comparative since no two locations are ever so alike that we may simply translate the behavioural distribution of one to another.

We have sought to begin a comparison of LGA Sydney with Westminster in the UK since Westminster has far and away the largest NTE in the UK and have a diversity and depth of activities that it is difficult to rival (for example the Theatre cluster in the West End or the Night and Day time eating cluster in Soho). Westminster also boasts many of the leading visitor attractions in the UK including the Houses of Parliament, Westminster Abbey and Buckingham Palace.

Some of these features make the comparison less exact but Sydney has its own key attractions if we have the visitor (local or international) in mind. LGA Sydney is also hemmed in by harbour and other waterways and this is both an attraction and a limitation with the need to develop on the basis of what is there. During the day time there is a sense of spatial limitation in Sydney which probably stems from the high levels of people and traffic movements through streets made relatively narrow by the levels of on street parking.

On the other hand Sydney by night does not have this feeling. But in spite of understanding that the City Council applies the highest standards to public lighting it does seem a city at night that is slightly under lit. Equally there few large night spaces which have good lighting even in the areas around the Rocks and in parts of George Street.

One has the sensation that Sydney could come more alive at night by a combination of encouragement – not perhaps of more major events – but the improved use of some night time spaces through lighting and activities which are encouraged in related buildings during the night time hours.

We have been made aware of the small bars programme in our research and we believe that this is entirely in keeping with the proactive point that we are making although it was difficult to see what patrons of these bars do in terms of moving on to other activities which increase the value of the NTE without building more programmes of events which provide the essential reason for moving on.

It is difficult without further engagement to set out how this process would begin but one can see that the cultural events programme might be a place to start which will touch a range of the right interests without requiring the participation of retail, which could follow if it sees more activity, or if a sufficiently engaging process is pursued to obtain retail buy in.

In essence we are saying that there seem to be grounds for a more proactive programme which 'switches on' Sydney at night in a more encompassing way.

10.2 Recommendations

Our key recommendation arising from this study is that our client considers how it may best take forwards a two strand approach to the development of the Night Time Economy.

There is no doubt that there is a fundamental need for independently led focus upon the strategy which will bring about an increasingly successful NTE economy. This focus needs its own management structure and its own champions to develop continuous debate with the relevant stakeholders and experts in this field. In a similar way the subject of reducing the negative social impacts which play around the space of the NTE merits and should have its own focus of policy development and management.

If we take the key recommendation forwards then our next recommendations are as follows

A new NTE space and activity development agenda

There is enough evidence in the data to suggest that by and large the LGA has a narrow attraction for workers and inhabitants and whilst most incoming workers are making their way home well before 9 p.m. there is a relatively small influx of people coming into the LGA. This applies at weekends and as well as during the week. It would seem to us that beneath the reported statistics may lie a challenge to widen the appeal of the LGA at night which requires the bringing together of specialists in a number of disciplines to improve the background experience as well as the focus events which might provide more healthy attraction than simply places to eat and drink.

Closer engagement of the stakeholders involved in the negative side of the NTE

If anger is a component of the disruption that breaks out in the NTE it seems no less a characteristic of some of the Stakeholders who see unacceptable behaviour and misuse of public resources as a thorn that is not grasped because politicians are nervous of the 'liquor' lobby.

We are not in a position to comment on the accuracy of this but it seems important that it is treated with the contempt that it merits and that these Stakeholders receive the platform that they need to pilot and champion reform. Nothing else could be in the best interests of the NTE and its related impact on the reputation of the City. However we suggest that this must be done with the clear support of the commercial interests in the LGA night time economy and that the new strategy banishes all sense of silo management.

The explicit agenda

Food is growing and primary component of the existing NTE. This should be built upon with regard to processes that raise the quality and reputation of what is provided at all levels.

The Italian reputation for providing good food whatever the service outlet level is an excellent example of this. It will also help to raise average wages in what is a relatively low paid industry.

We like the small bars programme as a facet of a more diverse NTE. The venues use small spaces very well and are more easy to manage because of their size. We would like to see more linkage to food and to a wider entertainment agenda such that they do not become typecast as drinks only establishments.

There is cause to consider the better use of open spaces allied to particular attraction programmes. A case in point is the large space between the main council building and the cathedral church. It has wonderful potential but like a number of places around the LGA it is not very well lit at night and lighting is only one facet of what might be done to improve the use of the space as a main area of attraction.

Parts of the core NTE areas are festooned with 'no drinking here' signs. We wonder if the overall impression is not more encouraging of negative perceptions than supportive of community objectives. This perspective is tied in closely with the need to present a more positive image in the LGA NTE which is part of a broader policy to encourage wider community participation.

The creative and cultural linkages with the NTE need to be reviewed and developed.

Both travel statistics and the broad activity patterns support the view that Sydney is more a city that switches off in the evening rather than switching on. As a discussion theme we believe that this should be high on the agenda.

Information

This study has clearly demonstrated large gaps in knowledge about activity and behaviour and this is characteristic of the issues faced by new policy development. We address some of these issues in more detail in the next section but Sydney needs an improved research agenda to help it take strategic advantage of its resources and over its competitors.

Stakeholders

Do they need to be better connected? We have drawn attention to the key role played by taxi services in the delivery of safe transit to NTE users. As an example is taxi services well connected to policy development?

11 Future Research

Here we comment on important aspects of the research process which relate to the need for Sydney to engage in improved information development such that it retains a strategic city lead based upon the information it is able to access through research resource channels.

Many of these points are prompted by the challenges we experienced in the study process.

1. There is a need to consider investment in quantitatively reliable survey research to help tie down more accurate information in the following areas
 - Business Survey to obtain more precise information on the breakdown of business activity between the two 12 hour time periods (and by 3 hours at night). This should cover both core and non-core businesses and be statistically weighted by size and types of activity
 - User Survey to obtain more precise information about the extent to which residents and non-residents use NTE services and with what frequency and whether they are single activity or multiple activity users. We know of no existing statistically based research.
 - Tourism Survey to measure the extent and detail by costed aspect of spending by tourists on NTE activities. Profiling of tourism to establish if there is a category of NTE Tourism and how it differs from other types of tourism. The connection between tourism and specific event visiting is also an important aspect of this work as is the time frame of the tourist visit.
2. The publically available data on NTE organisations is limited in its transparency. In this work we were able to persuade ABS to deliver data to a level that allowed us to apply our rules of NTE specific activity but nevertheless in some areas they were unable to give us the level of detail that we would have preferred. For example in some cases they could not break down to 4 digit levels of ANZIC because they felt it would conflict with confidentiality undertakings. Equally information on the size of businesses by employment and turnover is only given in defined banded levels – again to protect anonymity.

We recommend pursuing further work with Dun & Bradstreet because ultimately a reliable private sector database will supply all the information that is required. However this is not a short-term process. The suppliers update their latest information and write over the previous entries. In the UK we have circumscribed this problem by purchasing data on an annual basis and retaining the data for comparison with later years as they are reported.

This is not a simple process but it is quite feasible and it would give Sydney considerable competitive city advantage over the long term.

3. There are key areas where more technical research would benefit the cost measurement process. One of these is establishing the total cost of the NTE 'patient journey' through the health system – at present the ability to measure costs are limited to the 'tip of the iceberg'.
4. In lieu of being able to (or a willingness) to invest resources in a whole 'patient journey' analysis of the costs from street or licensed premise to recuperation, then we recommend at least using the criteria set out in this report to repeat analyse the health costs in, say, three years, to measure progress against the city's 20 year NTE vision as it is established.
5. We recommend post report discussion session with the Council in order to ensure that the information in the Data Framework workbook is fully discussed and any necessary avenues are followed up to ensure that Sydney data on the NTE gradually becomes exemplar.

This economy directly influences up to 40% of the entire Sydney economy and therefore the related investment is easy to justify and to pay back.

6. We affirm the importance of

- Continuous but improved measurement in key areas
- Annual review of progress
- Sharing improvements, setbacks and innovative ways forwards with communities

Of particular importance is the linkage between knowledge of performance that is believable and the development of

- Higher levels of investment
- Setting of KPIs and recording of change to affirm progress that is being made
- Using change to create a knowledge base to change policy
- Growing the reputation of the City both nationally and internationally

Sydney has an outstanding chance to become a world leader and exemplar in the NTE agenda.

If this becomes based upon aspiration and intuition it will run out of steam.

The only approach is continuous planned research, which improves knowledge and ensures that KPIs are revisited and revised and feted and shared with all stakeholders when it is appropriate.

12 Appendices

12.1 Appendix 1: Contacts during the research programme

There follows a list of principal contacts made with stakeholders in this Agenda during the study process.

In some cases there have been multiple contacts because of the nature of the issues e.g. Australian Bureau of Statistics concerning a range of data delivery matters.

The contacts are listed in alphabetical order

- **Allen Consulting Group**
- **Australian Bureau of Statistics Sydney, NSW and Canberra contacts**
- **Australian Hotels Association**
- **Bureau of Transport Statistics**
- **BOCSAR**
- **Clubs New South Wales**
- **Dun & Bradstreet Australia**
- **IBIS World**
- **IPART**
- **Kings Cross Area Local Police Command HQ**
- **New South Wales Ambulance Services**
- **New South Wales Department of Correctional Services**
- **New South Wales Department of Transport**
- **New South Wales Health**
- **New South Wales Police – Internal Finance Systems**
- **NSW Office of Liquor, Gambling and Racing**
- **RailCorp**
- **Restaurant and Catering Australia**
- **St. Vincent’s Hospital**
- **Sydney City Council – 18 Departmental Contacts**
- **Sydney City Council – FES Management Team**
- **Sydney Ferries**
- **Taxi Council**
- **Transit New South Wales**

12.2 Appendix 2: Data sources

Instead of detailing all individual data sources here we refer our client to the Data Framework workbook that contains full details of contacts and measured subjects.

The Data Framework is a key deliverable of this research process and provides the starting point for future considerations of change or improvement in research programmes to effect improved understanding of performance in the NTE.

However our key data sources have been

- **Australian Bureau of Statistics Sydney, NSW and Canberra contacts**
- **Bureau of Transport Statistics**
- **BOCSAR**
- **Dun & Bradstreet Australia**
- **Sydney City Council – FES Management Team**

We would like to thank members of these teams and the other organisations and individuals for their unfailing courtesy and assistance in this project

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