Preliminary Analysis of the Degree and Patterns of Seasonal Mobility within Australia

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Abstract

Seasonal variation or seasonality is a critical, yet under-researched, dimension of temporary mobility. Koenig and Bischcoff's (2003) recent paper 'Seasonality of tourism in Wales; a comparative analysis' outlined a methodology for examining and comparing patterns of seasonality in tourism data. The methodology outlined in that paper has been replicated here using Australian data.

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1. Introduction

This exercise uses the statistical methods outlined in Koenig and Bischcoff (2003) to analyse the seasonal variation of domestic visits to states within Australia.

The two aims of this exercise are:

- To examine the statistical methods used by Koenig and Bischcoff (2003) in their analysis of seasonality of tourism in Wales
- To perform a preliminary analysis on Australian data in order to describe the dominant seasonal components of temporary mobility at a state level.

The following report will consist of an outline of the methodology employed, including data sources and statistical methods, results derived from the analysis, a discussion of the results and concluding comments.

2. Data and methods

2.1 Data Sources

The data used in the following analysis has been collected by the National Visitor Survey (Bureau of Tourism Research) between1998 and 2002. The annual survey is based on a sample of 80 000 people throughout Australia(Bureau of Tourism Research 2002). The size of the sample has precluded a number of analyses from this exercise, due to the large error present in data for some states and territories. Most notably all territories are excluded, as well as selected 'purpose of visit' data for South Australia, Western Australia and Tasmania. The NVS is a similar data source to the United Kingdom Tourism Survey (UKTS), used in the analysis by Koenig and Bischcoff (2003). Interestingly the UKTS has a smaller sample size that the NVS (Star UK 2003).

For this exercise the following variables have been analysed;

- Purpose of Visit (*Visits to friends and relatives* (*VFR*), *Holiday/leisure* and *Business*)
- Month Returned
- State of Visit

It must be noted that the variable used to capture seasonality in this investigation differs from that used by Koenig and Bischoff (2003).The latter analysis was based on month trip started while the following uses data on month returned. This has implications for the interpretation of the results.

2.2 Statistical Methods

As stated, one of the primary aims of this exercise was to examine the methodology employed by Koenig and Bischcoff (2003) in their analysis of seasonality of tourism in Wales. As a result the statistical methods employed here follow those set out in that paper.

The first stage of analysis involved the application of measures of variability to the data set. The indicators used were;

- Coefficient of Variation (**CV**)
- Seasonality Indicator (**SI**)
- Gini Coefficient (**GC**)

These statistics calculate the spread of the data around the mean and produce scalar measures that can be used for the comparison of variability between data sets. A more complete description of these indicators may be found in Koenig and Bischcoff (2003).

The second stage of analysis moved from simple measure of variability towards a description of seasonal patterns. The most basic method employed was the Seasonal Plot, generated from normalized data, which facilitated visual interpretation of seasonal patterns. Though useful tools, Seasonal Plots do not allow for quantitative statements to be made regarding the stability or the structure of seasonality. In order to move towards more quantitative measures of seasonal pattern the Coefficient of Variability (**CVar.**) was introduced. This simply involved calculating the Coefficient of Variation separately for each month(Koenig & Bischoff 2003, p. 239). This measure made it possible to determine the persistence of monthly peaks and troughs in visitor numbers, over the study period.

The third stage of analysis involved Time Series Decomposition. A linear regression was applied to the deseasonalised data in order to produce a model visitation pattern free of seasonal influence. The real data values were then expressed as a percentage of the model data values in order to determine the Seasonal Factor (**SF**) for each month. A second measure applied at this stage was the Peak Seasonal Share (**PSS**) which relates the overall growth/reduction of temporary mobility to the growth/reduction in demand during the peak month(Baum & Lundtorp 2001; Koenig & Bischoff 2003). Only a cursory analysis using this method was carried out.

The final stage of analysis involved the application of the Amplitude Ratio (**AR**) and the Index of Similarity (**IS**). The Amplitude Ratio facilitates the comparison of seasonal patterns over a number of years, quantifying the stability of any seasonal pattern and illuminating trends in the overall increase or decrease of seasonal concentration of visits to a region. The Index of Similarity compares the seasonal pattern of two regions, producing a figure, similar in nature to the Correlation Coefficient. This measure is the first stage in developing a typology of

seasonality for regions within Australia, as it allows for the comparison of seasonal patterns between regions.

3. Results

3.1 Measures of Variability

The results of the first stage of analysis can be found in Table 1. The three measures produced results between 0 and 1, with **0** indicating no seasonality (stability) in the data when the Coefficient of Variation (**CV**) and the Gini Coefficient (**GC**) were used and **1** indicating stability when the Seasonality Index (**SI**) was applied. The three measures of variability generally rank the states in a similar order; however the **CV** and the **GC** correspond more closely to each other than either to the **SI**. This effect was also noted in Koenig and Bischcoff (2003).

Table 1: Coefficient of Variation, Seasonality Indicator and Gini Coefficient for trips by purpose all states Australia

	1998			1999			2000			2001			2002			Mean		
	CV	**SI**	**GC**	**CV**	**SI**	**GC**	**CV**	**SI**	**GC**	**CV**	**SI**	**GC**	**CV**	**SI**	**GC**	**CV**	**SI**	**GC**
Holidays / leisure																		
Australia	0.33	0.52	0.14	0.30	0.54	0.12	0.27	0.57	0.12	026	0.58	0.12	0.25	0.58	0.11	0.28	0.56	0.12
NSW	0.39	0.48	0.18	0.33	0.52	0.14	0.28	0.58	0.13	0.30	0.56	0.14	0.25	0.62	0.12	0.31	0.55	0.14
Victoria	0.43	0.44	0.18	0.41	0.45	0.17	0.33	0.53	0.16	0.38	0.48	0.16	0.32	0.54	0.15	0.37	0.49	0.16
Queensland	0.22	0.66	0.11	0.24	0.61	0.12	0.25	0.60	0.12	0.23	0.70	0.12	0.24	0.62	0.12	0.24	0.64	0.12
SA	0.33	0.55	0.16	0.29	0.58	0.15	0.35	0.54	0.18	0.26	0.60	0.13	0.33	0.56	0.16	0.31	0.57	0.16
WA	0.23	0.77	0.12	0.27	0.63	0.14	0.32	0.60	0.16	0.18	0.76	0.10	0.33	0.56	0.16	0.26	0.66	0.14
VFR																		
Australia	0.17	0.71	0.08	0.14	0.72	0.07	0.19	0.71	0.09	0.16	0.83	0.09	0.19	0.73	0.10	0.17	0.74	0.09
NSW	0.18	0.71	0.09	0.17	0.69	0.08	0.22	0.69	0.11	0.18	0.78	0.10	0.16	0.78	0.09	0.18	0.73	0.09
Victoria	0.23	0.63	0.11	0.15	0.77	0.08	0.25	0.64	0.12	0.22	0.74	0.12	0.27	0.63	0.13	0.22	0.68	0.11
Queensland	0.20	0.77	0.11	0.15	0.74	0.08	0.21	0.77	0.11	0.22	0.75	0.12	0.23	0.73	0.13	0.20	0.75	0.11
SA	0.27	0.61	0.14	0.19	0.68	0.10	0.34	0.51	0.15	0.22	0.71	0.12	0.34	0.56	0.17	0.27	0.61	0.14
WA	0.25	0.66	0.13	0.17	0.80	0.09	0.18	0.82	0.10	0.17	0.74	0.09	0.24	0.61	0.11	0.20	0.72	0.10
Business																		
Australia	0.17	0.84	0.09	0.15	0.77	0.08	0.15	0.82	0.07	0.17	0.79	0.09	0.17	0.83	0.09	0.16	0.81	0.08
NSW	0.16	0.85	0.08	0.20	0.77	0.10	0.17	0.77	0.09	0.21	0.71	0.11	0.17	0.78	0.09	0.18	0.77	0.10
Victoria	0.27	0.72	0.14	0.23	0.70	0.13	0.16	0.73	0.08	0.18	0.81	0.10	0.14	0.80	0.08	0.20	0.75	0.10
Queensland	0.30	0.76	0.16	0.24	0.70	0.12	0.27	0.72	0.14	0.24	0.76	0.13	0.29	0.72	0.15	0.27	0.73	0.14
All trips																		
Australia	0.17	0.68	0.08	0.15	0.70	0.07	0.15	0.72	0.07	0.12	0.77	0.06	0.14	0.58	0.11	0.15	0.72	0.07
NSW	0.20	0.69	0.10	0.16	0.69	0.08	0.16	0.73	0.08	0.15	0.75	0.08	0.14	0.77	0.07	0.16	0.73	0.08
Victoria	0.24	0.59	0.10	0.21	0.62	0.09	0.22	0.63	0.10	0.21	0.64	0.10	0.21	0.64	0.10	0.22	0.62	0.10
Queensland	0.12	0.76	0.06	0.15	0.76	0.08	0.13	0.80	0.07	0.15	0.81	0.08	0.15	0.81	0.08	0.14	0.79	0.07
SA	0.22	0.71	0.11	0.20	0.71	0.10	0.19	0.67	0.10	0.14	0.75	0.07	0.19	0.70	0.10	0.19	0.71	0.09
WA	0.13	0.76	0.07	0.15	0.76	0.08	0.19	0.75	0.10	0.12	0.81	0.07	0.16	0.74	0.08	0.15	0.77	0.08
Tas	0.32	0.52	0.15	0.34	0.52	0.15	0.23	0.67	0.13	0.25	0.64	0.12	0.31	0.55	0.15	0.29	0.58	0.14

The results showed that for all states, *Holiday/leisure* travel was the most seasonal. This holds true over the five year period of analysis. At a state level, Victoria showed the most seasonal variability in *Holiday/leisure* travel (CV = 0.37, SI = 0.49, GC=0.16) and the second most variability for *All trips*, behind Tasmania. The small sample size of data for Tasmania

may have influenced the measure of variability; hence it should be interpreted with caution. Queensland showed the least monthly variation in *Holiday /Leisure* and *Business* travel. According to the CV and GC, *VFR* travel to NSW (CV= 018, GC = 0.09) was the most stable, the SI however indicated that *VFR* travel to Queensland was more stable (SI = 0.75). *VFR* travel to SA was the most variable (CV= 0.27, SI = 0.61, GC=0.11).

3.2 Seasonal Patterns

Seasonal plots (Appendix A) facilitate the visual analysis of the variation in trip volumes throughout the year. The seasonal plots for A*ll trips* showed a slight January peak, followed by a drop in the volume of trips taken in February. The volume of trips tended to be stable throughout the remainder of the year, with slight peaks occurring in April, July and October, suggesting a pattern of institutional seasonality. The seasonal plots for *Holiday/leisure* travel showed the strongest seasonal trends, with all states experiencing a significant increase in the volume of visitors in January. These plots also appeared to follow a general seasonal pattern reflecting the timing of the annual school holidays.

VFR travel also showed a January peak, however the relative magnitude of this peak was less than that for *Holiday/leisure*. It was difficult to discern any seasonal pattern for *Business* trips throughout the year. The most striking element was the trough in *Business* trips occurring in December and January.

Table 2: Coefficient of variability for each month by purpose of visit, states Australia

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Mean
Australia													
All trips	0.05	0.05	0.06	0.03	0.06	0.07	0.04	0.03	0.05	0.03	0.04	0.04	0.04
Holiday	0.05	0.07	0.09	0.04	0.06	0.08	0.03	0.06	0.07	0.03	0.07	0.04	0.06
VFR	0.06	0.05	0.07	0.06	0.07	0.07	0.09	0.04	0.07	0.05	0.07	0.08	0.06
Business	0.07	0.12	0.09	0.10	0.10	0.12	0.04	0.03	0.09	0.10	0.10	0.05	0.08
NSW													
All trips	0.07	0.08	0.08	0.04	0.05	0.10	0.07	0.03	0.10	0.04	0.06	0.06	0.07
Holiday	0.10	0.09	0.10	0.05	0.10	0.12	0.06	0.11	0.21	0.08	0.11	0.08	0.10
VFR	0.08	0.05	0.14	0.11	0.04	0.13	0.10	0.05	0.12	0.07	0.08	0.10	0.09
Business	0.10	0.18	0.08	0.18	0.07	0.11	0.19	0.13	0.05	0.11	0.21	0.05	0.12
Victoria													
All trips	0.04	0.10	0.05	0.04	0.10	0.07	0.10	0.05	0.08	0.03	0.05	0.06	0.06
Holidays	0.10	0.15	0.12	0.04	0.11	0.10	0.11	0.06	0.07	0.08	0.09	0.10	0.09
VFR	0.10	0.15	0.15	0.05	0.06	0.05	0.23	0.12	0.06	0.06	0.14	0.13	0.11
Business	0.26	0.19	0.12	0.11	0.22	0.16	0.12	0.12	0.23	0.16	0.15	0.13	0.16
Qld													
Holidays	0.06	0.06	0.12	0.09	0.11	0.07	0.13	0.12	0.08	0.08	0.08	0.08	0.09
VFR	0.06	0.12	0.13	0.11	0.08	0.15	0.11	0.16	0.16	0.20	0.10	0.07	0.12
Business	0.29	0.30	0.19	0.36	0.24	0.20	0.13	0.11	0.18	0.19	0.20	0.14	0.21
All trips	0.04	0.05	0.12	0.07	0.08	0.07	0.07	0.11	0.10	0.04	0.07	0.04	0.07
SA													
All trips	0.07	0.09	0.09	0.08	0.14	0.07	0.06	0.06	0.06	0.08	0.11	0.06	0.08
Holidays	0.04	0.09	0.16	0.06	0.25	0.08	0.17	0.04	0.18	0.13	0.13	0.19	0.13
VFR	0.16	0.14	0.10	0.11	0.16	0.06	0.17	0.14	0.20	0.17	0.18	0.26	0.15
WA													
All trips	0.14	0.14	0.12	0.10	0.08	0.18	0.05	0.09	0.09	0.13	0.11	0.13	0.11
Holiday	0.14	0.19	0.24	0.10	0.15	0.15	0.07	0.11	0.13	0.11	0.24	0.08	0.14
VFR	0.21	0.19	0.08	0.06	0.20	0.19	0.17	0.08	0.09	0.24	0.13	0.14	0.15

The Coefficient of Variability (**CVar.**) measured the persistence of seasonal patterns over the study period (1998-2002). The results for all states were quite low, suggesting the presence of a persistent seasonal pattern for *All trips*, *Holiday/leisure* and *VFR*. Business trips showed greater variability across the period, especially in Queensland in which the **CVar.** exceeded 0.3 for some months. A lack of strong seasonal pattern precluded Business travel from the next stage of analysis, which involved the generation of Seasonal Factors (Koenig & Bischoff 2003).

3.3 Seasonal Factors

The generation of seasonal factors (Appendix B) allowed for a quantitative comparison of seasonality across regions and for purpose of trips. Across all states there exists a January peak in the volume of *All trips*. This ranges from 123.39% in Queensland to 165.39% in Tasmania. There is a second peak in the number of *All trips* in April for all states and a third peak in October for all states except Victoria. This suggests a strong institutional factor affecting circulation within Australia as the peaks coincide with the school holidays for the study period. Queensland deviates from this general trend with a longer period of high visitation from July - October with the Seasonal Factor staying above 100%. No other state has this extended winter season.

The largest seasonal peaks are those for *Holiday/leisure* travel, with Victoria having a seasonal factor of 200.80% in January. This can be interpreted as the January share of trips being double what would be expected if no seasonality was present. The second largest peak in *Holiday/leisure* trips is for NSW, with a January peak of 176.93%. The lowest January peak is for WA with 157.00% followed closely by Queensland with a seasonal factor of 159.09%.

VFR trips show an interesting deviation from the seasonal pattern present in *Holiday/leisure* travel, with the annual peak in visitor volume spanning December and January. This contrasts with the low seasonal factor for *Holiday/leisure* trips in December, which ranges between 77.41% for WA and 92.08% for Queensland. The difference in seasonal pattern between these groups may be related to the average duration of stay for these trips, and the impact of this on the data needs to be examined.

3.4 Amplitude Ratio and the Index of Similarity

The final two indicators generated in this exercise were the Amplitude Ratio and the Index of Similarity. The Amplitude Ratio (Table 3) tests the stability of the seasonal factors across the study period (Koenig & Bischoff 2003).

Table 3: Amplitude Ratio

	Australia	NSW	Victoria	Queensland	SA	WA	Tas
All Trips							
1999	0.9090271	0.9544136	0.8760257	0.947799503	1.0021727	0.9140432	0.9677367
2000	0.9641114	0.9717213	1.0418823	0.969374144	0.9592989	0.9553318	0.9627167
2001	1.0023825	1.0220541	0.9823277	0.960167297	0.9465872	1.0245715	0.9909468
Holiday/leisure							
1999	0.9613529	0.9603109	0.9141549	0.954490482	1.025117	1.0265811	
2000	0.9794123	0.9953323	1.0412849	0.977527036	0.9609729	0.9719643	
2001	0.9657886	0.9705455	0.9880896	0.998448881	0.9885765	1.0062892	
VFR							
1999	0.6901975	0.9020324	0.9257584	1.01552072	0.8015616	0.8807263	
2000	0.9519225	0.9590391	0.9946699	0.981323759	0.8998941	0.9694401	
2001	0.9964524	1.0109663	1.0015291	0.936497	1.1861062	0.9812897	
Business							
1999	0.9788627	0.9524708	0.998206	0.973279876			
2000	1.0005996	0.9609002	0.847235	0.957849831			
2001	0.9629677	0.9540107	0.9099205	0.980119247			

The Amplitude Ratios for all states and purpose of trips are close to 1, suggesting a high level of stability across the three years for which these indicators were generated. The largest variation in Seasonal Factors was for South Australia *VFR* data in which the Amplitude ratios increase from 0.80 in 1999 to 1.1861062 in 2001. This suggests an increase in the seasonality of *VFR* trips over time.

The Index of Similarity (Table 4) was generated for *All trips* between all states and *Holiday/leisure* trips for NSW, Victoria, Queensland, SA and WA. The index is interpreted in a similar fashion to the Correlation coefficient (Koenig & Bischoff 2003) with a high degree of similarity occurring when the Index of Similarity approaches 1 or -1.

Table 4: Index of Similarity

All trips

	NSW	Vic	Qld	SA	WA	Tas
NSW		0.2	0.51	0.38	0.31	-0.2
Vic	0.25		0.19	0.43	0.14	0.2
Qld	0.51	0.2		0.38	0.39	-0.2
SA	0.38	0.4	0.38		0.28	0.1
WA	0.31	0.1	0.39	0.28		-0.2
Tas	-0.2	0.2	-0.2	0.1	-0.2	

Holidays

	NSW	Vic	Qld	SA	WA	Tas
NSW		0.5	0.15	0.54	0.41	
Vic	0.46		0.1	0.46	0.35	
Qld	0.15	0.1		0.22	0.38	
SA	0.54	0.5	0.22		0.37	
WA	0.41	0.4	0.38	0.37		
Tas						

The value generated between the states generally produced low values for the Index of Similarity suggesting significant differences in the patterns of seasonality for *All trips* and *Holiday/leisure* trips throughout Australia.

4. Discussion

The above analysis had two aims:

- To examine the statistical methods used by Koenig and Bischcoff (2003) in their analysis of seasonality of tourism in Wales
- To perform a preliminary analysis on Australian data in order to describe the dominant seasonal components of temporary mobility at a state level.

The methodology used by Koenig and Bischcoff (2003) in their analysis of tourism in Wales provides a useful framework for future analysis of various forms of seasonality. The progressive nature of the analysis allows for a step wise determination of various elements of seasonality. While providing a good foundation for analysis, the work done by Koenig and Bischcoff could be expanded. In particular, introducing a 'duration of stay' variable into the analysis would go some way in negating the effect of any time lag in the data caused by the 'month returned' variable. One possible option is to perform the analysis using a 'visitor nights' variable. This has not been done here due to a concern about the nature of the variable, particularly the risk of clumping 'long trip' visitor nights into the month returned data, producing distorted values for each month.

The second aim of this exercise was to describe the dominant seasonal components of temporary mobility in Australia. The analysis showed that seasonal patterns within Australia vary significantly between regions and by purpose of trip. A number of interesting characteristics of seasonality emerged through this analysis. Of particular interest was the difference in peak season between *VFR* and *Holiday/leisure* trips, with the peak in *VFR* spanning December and January and the peak in *Holiday/leisure* travel occurring only in January. This may be directly related to the length of these trips and further analysis incorporating a 'duration of stay' variable would be useful.

The seasonal pattern of temporary mobility in Australia suggests a strong institutional element with peaks in visitor numbers occurring within the school holiday periods. The notable exception is the winter season that is apparent in the Queensland data. This season, spanning July to October, is highly suggestive and supports a number of hypotheses relating to the experience of 'Grey Nomads' in Queensland. An analysis based on origin of visitors would prove useful in determining the migrant components of this seasonal peak.

The strong seasonality of Victorian temporary mobility is also worth further investigation. The January peak for Holiday/leisure travel is significantly higher than that for other states. Analysis incorporating a spatial variable, such as origin of visitor, would assist in determining

the characteristics of those migrants, specifically whether the peak was due to intrastate or interstate migration.

5. Conclusion

The statistical methodology outlined by Koenig and Bischcoff (2003) allows for the start of a meaningful quantitative analysis on patterns of seasonality, particularly for the purpose of comparison. The drawing together of a diverse array of methods, previously used in isolation, allows for a systematic analysis of seasonality. The foundation developed by Koenig and Bischcoff (2003) forms a sound basis on which further work can be built. It may be appropriate to introduce determinants of space and duration in order to further expand the analysis done here. The preliminary analysis on Australian data highlights a number of key differences in the seasonal patterns of temporary mobility between Australian states. Further exploration using these techniques would contribute to a greater understanding of the seasonal patterns of temporary mobility within Australia.

Literature cited

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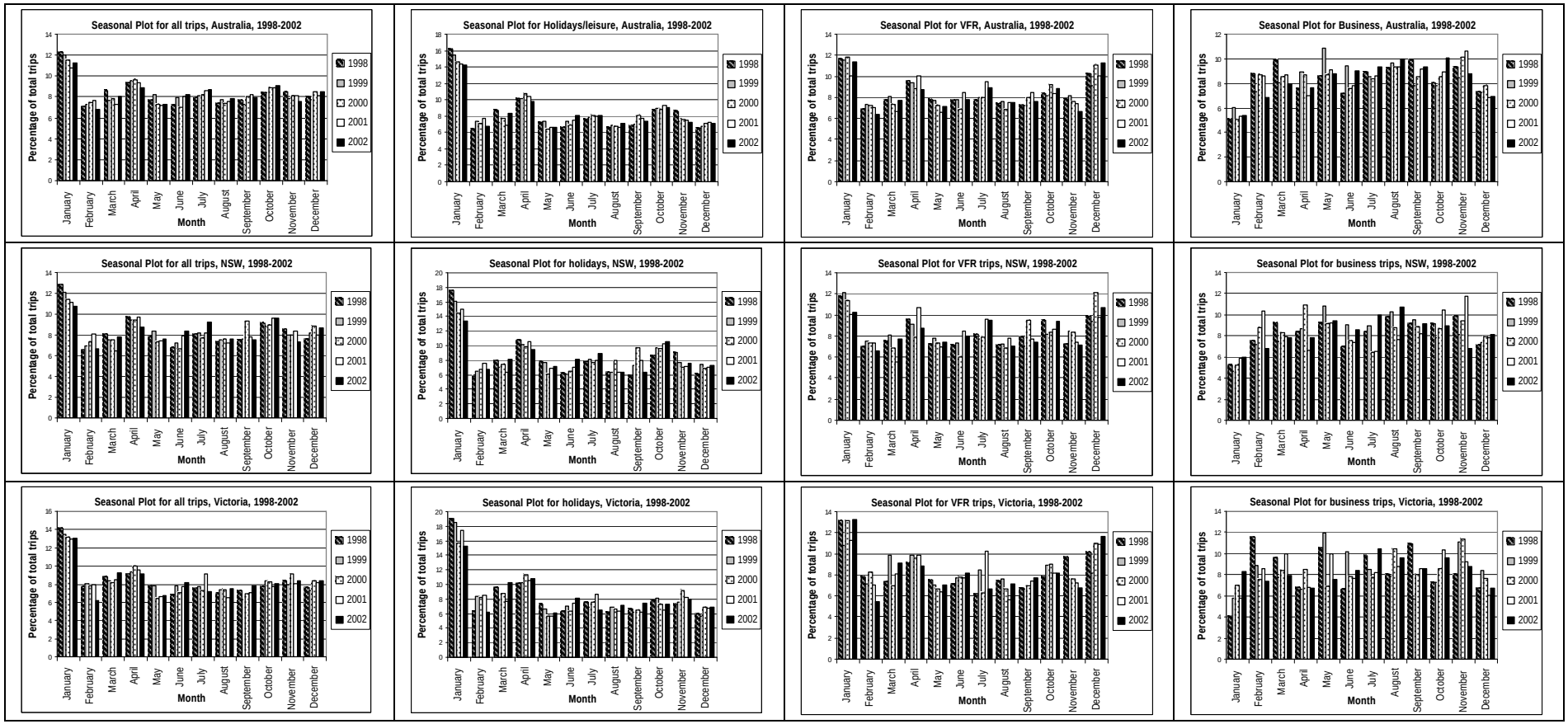
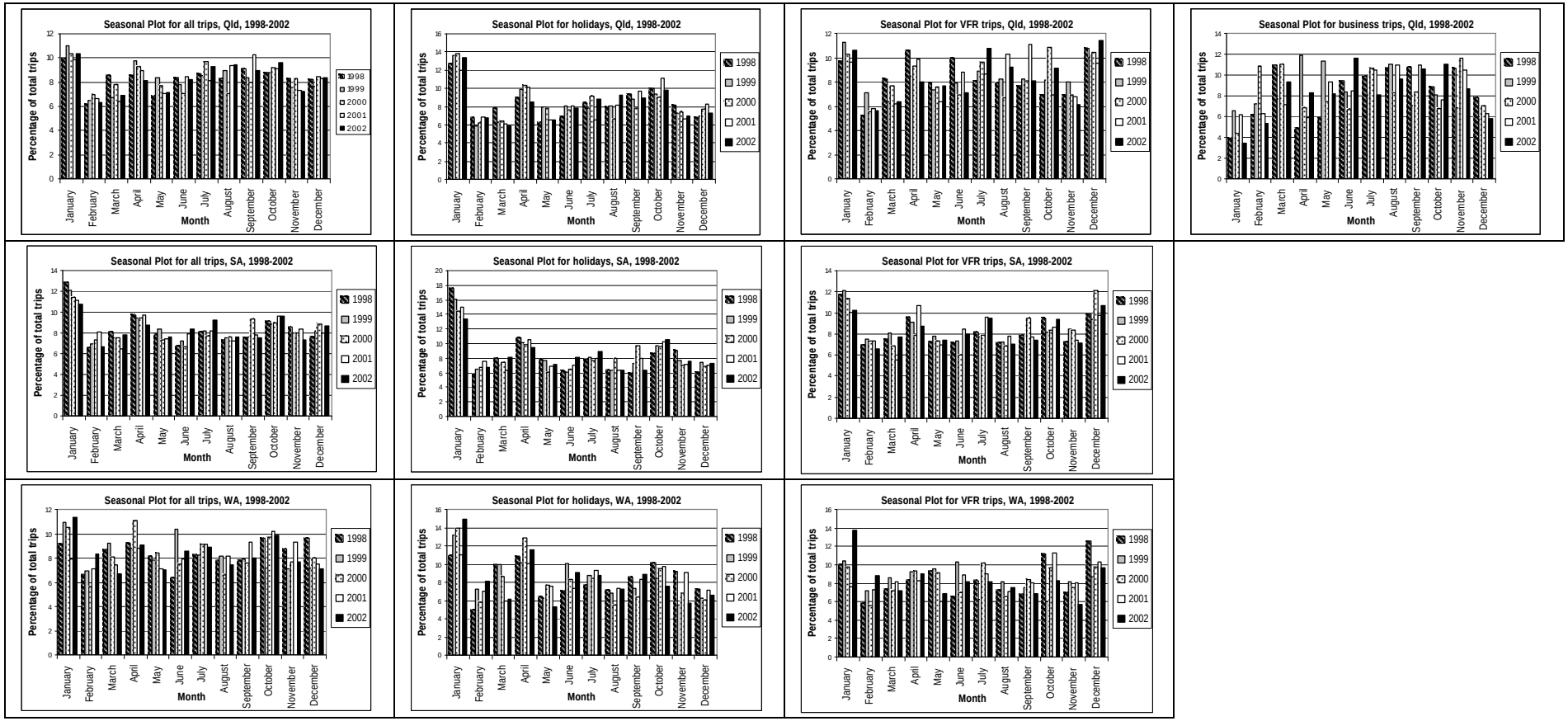
Appendix A


Seasonal Plot for all trips, Australia, 1998-2002
Seasonal Plot for Holidays/leisure, Australia, 1998-2002
Seasonal Plot for VFR, Australia, 1998-2002
Seasonal Plot for Business, Australia, 1998-2002
Seasonal Plot for all trips, NSW, 1998-2002
Seasonal Plot for holidays, NSW, 1998-2002
Seasonal Plot for VFR trips, NSW, 1998-2002
Seasonal Plot for business trips, NSW, 1998-2002
Seasonal Plot for all trips, Victoria, 1998-2002
Seasonal Plot for holidays, Victoria, 1998-2002
Seasonal Plot for VFR trips, Victoria, 1998-2002
Seasonal Plot for business trips, Victoria, 1998-2002
Percentage of total trips
Month
January
February
March
April
May
June
July
August
September
October
November
December
1998
1999
2000
2001
2002


Seasonal Plot for all trips, Qld, 1998-2002
Seasonal Plot for holidays, Qld, 1998-2002
Seasonal Plot for VFR trips, Qld, 1998-2002
Seasonal Plot for business trips, Qld, 1998-2002
Seasonal Plot for all trips, SA, 1998-2002
Seasonal Plot for holidays, SA, 1998-2002
Seasonal Plot for VFR trips, SA, 1998-2002
Seasonal Plot for all trips, WA, 1998-2002
Seasonal Plot for holidays, WA, 1998-2002
Seasonal Plot for VFR trips, WA, 1998-2002
Percentage of total trips
Month
January
February
March
April
May
June
July
August
September
October
November
December
1998
1999
2000
2001
2002

Appendix B

	NSW			Victoria			Qld			SA			WA			Tas
	All trips	Holidays	VFR	All trips	Holidays	VFR	All trips	Holidays	VFR	All trips	Holidays	VFR	All trips	Holidays	VFR	All trips
January	137.67	176.93	133.62	159.68	200.80	147.09	123.38	159.09	126.83	143.52	173.81	159.76	124.14	157.00	128.69	165.39
February	87.67	82.64	87.68	90.97	94.53	84.09	79.97	77.54	72.91	98.70	97.28	88.02	85.38	83.34	88.99	106.87
March	88.84	86.74	86.37	103.39	103.41	102.95	84.68	74.66	80.97	91.21	86.78	87.46	95.73	91.11	95.19	107.40
April	112.78	120.34	111.10	115.11	128.29	115.14	109.69	116.76	108.14	117.86	122.89	121.43	114.22	132.38	109.54	102.18
May	92.82	83.42	89.96	82.92	72.03	81.56	91.93	86.64	87.81	89.38	80.01	81.07	91.82	79.61	95.99	78.34
June	91.20	83.34	90.86	92.59	86.64	94.42	95.69	94.84	93.28	85.32	79.29	85.95	103.92	103.33	103.91	88.14
July	100.66	98.65	105.67	94.02	88.49	94.46	108.04	96.87	114.96	100.73	99.10	100.93	106.75	104.73	101.03	95.73
August	90.45	81.24	87.91	86.08	80.29	81.18	105.57	96.51	104.63	83.04	66.04	86.62	91.10	79.85	88.08	66.21
September	97.21	94.39	95.58	84.62	78.41	86.62	107.63	105.55	107.61	93.29	94.10	85.81	98.76	91.77	92.04	83.49
October	111.83	120.56	105.12	96.65	86.82	102.70	111.06	117.53	105.89	112.30	117.52	112.27	110.97	104.84	104.59	94.67
November	95.43	88.09	94.84	99.94	98.75	87.39	93.57	85.71	86.53	91.14	85.52	86.11	94.87	80.87	87.20	94.48
December	101.54	85.57	127.20	95.91	78.09	125.00	98.61	92.08	119.82	100.09	87.12	127.31	88.71	77.41	113.45	103.40

Appendix C

	Australia		
	All trips	VFR	Holidays/Leisure
January	139.1994	139.1384	179.5394
February	88.94938	86.35068	88.39786
March	93.80551	91.75874	91.87308
April	113.7355	113.1876	125.6059
May	91.00807	87.56607	82.65251
June	94.23911	93.35555	90.91456
July	101.4757	103.8351	97.99351
August	92.08499	88.38504	83.71378
September	94.77951	93.69331	92.13732
October	105.8829	102.7465	110.4486
November	95.09052	88.91402	91.03111
December	98.29658	122.1722	86.22185