Economic Impacts of Viticulture and Winemaking on Employment and Income in the Central Ranges Zone of New South Wales, Australia

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Abstract: The Australian wine industry continues to be buffeted by trends in global markets as well as changes to domestic consumption such that the economic viability of some wine producing regions has been significantly affected. Against this backdrop, this study focuses upon the Central West region of New South Wales (NSW) comprising the regional centres of Cowra, Orange and Mudgee. This wine region has the potential for high grape yields, creating a wide range in wine-grape quality, especially when irrigation is used. This study assessed the economic influence of viticulture and the wine-producing industry in terms of the direct, indirect and induced effects on regional output, value added, income and employment. More precisely, the research questions that directed the inquiry were:

- What were the economic impacts of the wine industry on employment in 2006-12?
- What were the economic impacts of the wine industry on income in 2006-12?

Method: One method of calculating the economic impact of a particular activity upon a given region is the use of Input-Output (I-O) tables. Using the collection of data by survey and tables supplied by Deloitte, ABS, Linden Chalmers and Viticulturists from the region, the study constructed a sub-category input-output table for ‘Viticulture’ in the ‘Other Agriculture Sector’ of the Central West regional table. By replacing the ‘Wines Spirit and Tobacco Sector’ with ‘Wineries’ and by using the GRIMP software developed by Guy West at the University of Queensland, the study developed input-output (IO) tables for 2012.

With these tables, multipliers were able to be derived. In turn, these multipliers were used to analyse the regional economic and employment impacts of the wine industry upon the Central West region. Through qualitative analysis of these data, the study then examined the interlocking relationships between industry types, so indicating particular strengths or weaknesses in the region’s economic system.
The study also considered whether these changes were the result of trends across NSW or whether they were due to local factors. This was explored with shift-share analysis by comparing the years of 2006 and 2012 to determine if there were actual changes reflecting NSW trends relative to local trends. We also considered if the adoption of labour-saving technologies in viticulture and wine production have had an effect on employment.

Results: In order to assess these impacts economically, we analysed the gross output, value added, household incomes and employment. It was estimated that in 2012, the wine industry gross output was $431 million, supplying a ‘value-added’ of $204 million. The industry benefitted the households of the Central West by no less than $96 million. This industry supplied 1737 positions of employment to the region’s workforce. However, a vine pull within the region of an estimated 3000 hectares between 2010 and 2012 has resulted in no increase in net employment taking place in the industry between 2006 and 2012. Instead, a considerable decrease in employment was estimated from core Australian Bureau of Statistics (ABS) employment figures, including the mean wage and total number of workers required. The same data indicated that there had been an increase in casual employment at the expense of full time employment.

Data from the study also suggested that fewer people need to be employed per hectare due to the adoption of labour-saving technological advances made in grape production, rather than a decrease in overall demand per se. Further, firms growing grapes have had little choice but to implement these changes due to the current grape price. Costs were not passed on to wineries as they will only pay current market value. Nevertheless, one way that low prices have been combated is by increasing yields.

Finally, the study demonstrated that viticulture multipliers were mostly higher than those of wineries. This means that viticulture has a greater flow-on effect than wineries per $1 million extra demand for wine. Many small towns within the Central West have vineyards and no wineries, and these places are benefiting greatly due to the economic and employment impacts. If the wine industry slows down further as the current trends suggest, then these small towns will be adversely affected.
Keywords: Central Ranges Zone, Central West region, economic impact employment multipliers, input-output analysis, regional development, wine industry.