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What is the value of a driver licence? A contingent valuation study of Australian adults

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A B S T R A C T

Background: Holding a driver licence is a vital part of life for many Australians, facilitating social connections and enabling access to employment, education and health services. There is a lack of evidence, however, about the value the community attaches to driver licences. This study investigates the monetary value that a sample of Australian adults place on holding a driver licence and how such valuations vary on the basis of individual characteristics.

Methodology: A contingent valuation study of 1054 Australian adult licence holders (with an oversampling of Indigenous Australians) was carried out to derive the sample's willingness to pay (WTP) to avoid losing their driver licence for a period of one year. Interval regression analyses were undertaken to determine the association between a range of demographic and driving-related characteristics of respondents and their WTP valuations.

Results: The sample was representative of the Australian population in terms of state of residence and gender. Mean WTP based on the base model was \$2290 to avoid losing a driver licence for a year (95% CI \$2156–\$2431). Indigenous participants had a mean WTP higher than other respondents (\$2789 as opposed to \$2240, $p < .001$). Once individual characteristics were controlled for, there was no significant difference in the WTP results between Indigenous and non-Indigenous participants. WTP was significantly higher for respondents who drove multiple times a week (\$396 higher WTP, $p = .012$) than those who did not and who required a car for work compared to those who did not (\$520 $p = .002$). WTP increased with higher incomes and was greatest for those earning over \$120,000 annually (\$1352 higher than those earning under \$40,000 per year, $p < .001$). Those living in urban areas had a significantly lower WTP compared to non-urban residents (\$407 lower than other respondents, $p = .012$) and WTP decreased with age (\$14 lower per additional year of age, $p = .03$). Those who had incurred a licence suspension in the past 5 years had significantly higher WTP (\$1686 $p < .001$), than those who had not, and those who had incurred a traffic fine in the past 5 years reported a higher WTP than those who had not (\$358 $p = .032$).

Conclusions: Holding a driver licence was found to be of substantial value to participants. While support for alternative methods of transport is important, these results highlight the importance of programs to support driver licensing, and those addressing known disparities in licensing status across population groups, such as those faced by Australia's Indigenous communities.

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Given the link between licensing and wider social and economic opportunities, such programs can potentially play a broad role in addressing social disadvantage and exclusion.

1. Introduction

Significant variations in driver licensing rates exist across the Australian population with culturally and linguistically diverse populations experiencing lower rates of licensing than other groups. Aboriginal and Torres Strait Islander (Indigenous) Australians, for example, are far less likely than other Australians to hold a valid driver licence (Committee on Law and Safety, 2013; Department of Transport WA, 2012; Skinner and Rumble, 2013; Neumann and Australia, 2011; SA Health et al., 2014). A range of barriers have been identified facing Indigenous Australians from obtaining a driver licence (Cullen et al., 2016a). The importance of these disparities are not well understood, however, a growing body of evidence has investigated the benefits associated with holding a driver licence.

On top of (and potentially as a result of) the potential transport benefits, holding a driver licence has also been shown to be associated with a range of positive social indicators including better employment, health and education outcomes for the licence holder (Ivers et al., 2016). Further, licensing-related offences play a major role in the involvement of disadvantaged populations in the criminal-justice system (Cullen et al., 2016a; Anthony and Blagg, 2012; Job and Bin-Sallik, 2013). Indigenous Australians are over-represented in prison, and are incarcerated at a higher rate than non-Indigenous people for licensing and regulatory offences (Australian Institute of Health and Welfare, 2015). For example, the imprisonment rate for Indigenous people in New South Wales found guilty of a licensing offence in 2011 was 12% compared to 5% for non-Indigenous people (NSW, 2013). In response to these inequities and the importance placed on holding a licence, a number of interventions to improve licensing rates (through increased uptake of licences and interventions to reduce losing licences) among Indigenous Australian communities and other marginalised groups have emerged (Cullen et al., 2016b,c). There is limited economic evidence demonstrating the value of such programs, however, casting doubt over the appropriate level of investment that should be directed to these interventions.

1.1. Contingent valuation

Unlike market-based goods, there are no readily available market-prices for driver licences that can be used to assess the value that a community places on holding a licence. This is a common issue across many fields of applied economics including in the areas of environmental protection, health and transportation. A number of techniques have been developed over recent decades as a means to value such non-market goods including those based on both stated and revealed preferences of populations. Revealed preference methods derive a value for the good in question based on analysing actual consumer behaviour while stated preference methods ask respondents to make choices or provide a value for a good or service under hypothetical situations (Hensher et al., 2005). Contingent valuation studies are one such stated-preference method based on surveys in which respondents provide values that they are willing to pay for a certain good or service which are then typically used in cost-benefit analyses (Carson, 2011). While they are subject to a number of limitations, in particular regarding how accurately respondents represent their true WTP value with regards to a hypothetical situation, formal guidelines have been developed to minimise these shortcomings and a literature has developed demonstrating the validity of contingent valuation methodologies (Bateman et al., 2008).

1.2. Existing valuations

In spite of the social and policy importance of driver licences, there have been few published attempts to derive a value associated with holding one. Jogensen and Wentzel-Larsen (2002) conducted a study of 1287 Norwegian adult respondents who had access to a car to estimate what Norwegian drivers would be willing to pay in order to avoid losing their licence for six, twelve or twenty-four months (Jogensen and Wentzel-Larsen, 2002). The authors found that a driver's WTP to avoid losing their driver licence increased significantly with income, dependence on the car for employment, the amount of driving experience, being male, younger and living in rural areas. To avoid losing their licence for two years, respondents were willing to pay the equivalent of approximately the average Norwegian monthly wage (Hunnes et al., 2009). The authors elicited this value with a single open-ended question. The validity of such a method has been challenged in the contingent valuation literature due to concerns over a number of biases and the reliability of the valuations elicited with referendum style questions believed to elicit more accurate values (Carson, 2011; Arrow et al., 1993). No Australian-based estimates of the value of a licence were found in the literature.

This paper addresses this gap in the literature through a robust investigation of the value that a sample of Australian adults place on holding a licence. Specifically, we examine the following research question: how much are people willing to pay to avoid losing their driver licence for a period of one year and how does this vary based on the individual characteristics of our sample? The methods used in this study and theoretical underpinnings of our work are presented in the next section, before the results of the contingent valuation study and modelling exercise are presented. Finally, we conclude with a discussion of the main findings along with a summary of the major policy implications of these results, suggestions for further research and an overview of the main limitations of this study.

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