

Appendix 1 - Data Sources

1.1 Sales

Monthly sales data for the Prius in the United States was purchased from the Automotive News Data Center, along with total monthly light vehicle sales and total monthly car sales. Annual market shares by EPA Vehicle Class were obtained from Appendix F of the US EPA's report *Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2009* (EPA 2009).

1.2 Government Incentives

Data describing government incentives for which the Prius is eligible were collated from numerous sources, based on the Union of Concerned Scientists' list of hybrid vehicle incentives (UCS 2010). The Federal Government's tax credit for advanced vehicles provided up to a \$3,150 tax credit for the purchase on a Prius in 2006-2007, until Toyota's sales threshold under this scheme was reached. The details of state and local government incentives were gathered from numerous government departmental websites. These incentives exist in numerous forms, including tax credits, tax deductions, high-occupancy vehicle (HOV) lane access, exemption from emissions testing and discounted parking. Only financial incentives were included in this model. The value of tax deductions was estimated as 15% of the amount of the tax deduction, the marginal tax rate that has applied to the mean per capita income in the United States each year over the past decade.

1.3 Dealer Incentives

Incentives that influence the price of the Prius include cash rebates to customers, reduced rate financing and discounts to dealers. Weekly data describing the range of incentives being offered by Toyota for purchase of the Prius for the period 2003-2010 were obtained from the Automotive News Data Center. Monthly dealer incentive data was calculated by averaging weekly incentives offered for each month, using a net present value calculation to estimate the present value of reduced-rate financing to consumers. Data relating the level of dealer incentive offered to the length of time the vehicle had been in the dealer's inventory (Figure 6) was obtained from JD Power's Power Information Network, a database

of real-time transaction data obtained from across thousands of dealerships in the United States.

1.4 Prius Supply

The Prius has been manufactured exclusively in Japan for all global markets since its introduction. Prius export data from Japan to the United States was obtained from Fourin. This data was available on an annual basis for 2000-2004, and a monthly basis for 2005-2010. For the period 2000-2004, monthly production and exports were estimated using linear interpolation.

1.5 Marketing Expenditure

Marketing expenditure data for the Prius was purchased from Kantar Media, a marketing intelligence provider. This data measures Toyota's monthly Prius marketing expenditure on radio, television, newspapers, magazines and the internet in the United States.

1.6 Vehicle Specifications

Specifications of the Prius and comparable vehicles such as Toyota's Corolla and Matrix models by Model Year were obtained from a consumer automotive website (CarsDirect 2010), including Manufacturer's Suggested Retail Price (\$), Dealer Invoice Price (\$), fuel tank capacity (gallons), city and highway fuel economy (miles per gallon) and interior volume (cubic feet). Greenhouse gas emissions (tons of CO₂/year) for each vehicle were obtained from the Department of Energy's Fuel Economy website (DOE 2010), based on 15,000 miles of driving per year split between 55% city driving and 45% highway driving.

1.7 Waiting List Length

The length of the waiting list for new Prius purchase was estimated by analyzing newspaper articles for the period 2000-2010. Articles that referred to a current waiting list for the purchase of a Prius in the US were identified using Factiva. For each month, an estimated waiting list length was calculated as the average of the waitlist estimates mentioned in articles during that month. In addition, the frequency of newspaper references to waiting lists in the US was collated each month. These two data sets, shown in Figure 11, have a correlation of 0.68.

1.8 Gasoline Prices

Monthly average gasoline prices were obtained from the U.S. Energy Information Administration (EIA 2010). The prices used in this analysis were the U.S. city average retail prices for regular automotive gasoline.

1.9 Household Income

National-level household income data was obtained from the (U.S. Census Bureau 2010) available on an annual basis for the period 2000-2009. Linear interpolation of this data was used to obtain an estimate of monthly household income.