

Expenditures in NY Municipalities

Brief Background:

Two New York municipalities (Warwick and Monroe) are interested in predicting changes in expenditures resulting from proposed construction of new housing projects. The issue is that if the expenditures increase, the town may have to generate more funds through say property tax. The data is from 1992 over a number of municipalities in New York. The municipalities wish to build a model that can predict expenditures in the years 2005 and 2025 from a variety of demographic and income-related predictors. Though this is a future prediction, we are viewing the years 2005 and 2025 as new observation labels. More importantly is predicting expenditures over expected changes in the predictors resulting from the new housing projects. Since these changes fall within the range of the data set, we are not extrapolating per se.

The data set contains three identifiers for the municipality (ID, State, County codes) and six predictors, as shown in the following table. The variable “percent intergovernmental” represents the percentage of revenue coming from state and federal grants and subsidies.

Variable	Defintion
ID	Identity number
ST	State code
CO	County code
EXPEN	Expenditure per person
WEALTH	Wealth per person
POP	Population
PINT	Percent intergovernmental
DENS	Density
INCOME	Mean income per person
GROWR	Growth rate

The projections for Warwick and Monroe are show in the following table.

Town	Year	POP	WEALTH	PINT	DENS	INCOME	GROWR
Warwick	1992	16225	72908	24.7	170	19044	30.3
	2005	20442	85000	24.7	214	19500	35.0
	2025	31033	89000	26.0	325	20000	40.0
Monroe	1992	9338	55067	8.8	599	16726	30.0
	2005	10496	58000	8.8	695	17100	35.0
	2025	13913	60000	10.1	959	18000	35.0