Additional Resources for State Profiling Model Practitioners

Below is a list of useful resources that state workforce agency staff, who are responsible for building, maintaining or running WPRS profiling models, can use for assistance. This list is not exhaustive and will be regularly added to as useful resources are identified.

### How-to Guides

**7 Types of Regression Techniques You Should Know!**  
Sunil Ray, Analytics Vidhya Blog. August 2015

Basic tutorial on types of regression analyses, including linear, logistic, polynomial, stepwise, ridge, lasso, and elastic net and how to select the right type for your needs.

**How To Perform A Logistic Regression in R**  
Michy Alice, DataSciencePlus. September 15, 2015

Basic tutorial on Logistic Regression in R covering implementation, assessment, and the predictive ability of a model.

**Simple Guide to Logistic Regression in R**  
Analytics Vidhya Content team. November 1, 2015

Blog tutorial providing overview of Logistic Regression, derivation of Logistic regression equation, performance and R code.

**Practical Guide to Logistic Regression Model in R**  
Manish Saraswat

Blog tutorial providing overview of Logistic Regression in R and a sample problem to demonstrate implementation.
**Categorical Variables in Regression Analysis**
Maureen Gillespie, Northeastern University. May 3, 2010

How to treat categorical variables in characteristic modeling, how many variables are necessary, how they are represented, a sample data set, treatment coding, and output for treatment coding linear regression model.

**Reports, Studies and General Information**

**UNEMPLOYMENT INSURANCE: More Guidance and Evaluation of Worker-Profiling Initiative Could Help Improve State Efforts**

The study analyzed national data from USDOL from a 2006 Labor-sponsored survey on states’ profiling models. The study interviewed state staff in California, Delaware, Illinois, Kentucky, Texas, Washington and Wisconsin, and conducted site visits in four of these states.

Conclusions: Most states are using statistical profiling models. Eleven of the 45 states and territories that use statistical models include only the five variables recommended by USDOL. The study also found that 30 states have not revised their profiling models since they were developed in the mid-1990s.

**Worker Profiling and Reemployment Services Making the Connection: New Strategies for Reemploying Unemployment Insurance Claimants in the New Global Economy**

A PowerPoint presentation of the 2007 GAO report.
A Statistical Profiling Model of Long-Term Unemployed Risk in Ireland
Philip J. O-Connell, Seamus McGuinness, Elish Kelly. May 2010

The paper assesses the potential for developing a profiling model in Ireland in order to address the growing number of unemployed job seekers who become long-term unemployed. The study looked at 33,754 individuals who filed a claim for unemployment benefits between September and December 2006, and subsequently completed a questionnaire containing profiling factors (e.g. education, job history, age, etc.). The researchers developed six, twelve, and fifteen-month statistical profiling models. The paper cites the countries that use statistical profiling to identify the probable length of unemployment among unemployed claimants.

Treatment Effects for Profiling Unemployment Insurance Programs: Semiparametric Estimation of Matching Models with Fixed Effects
Jose Galdo. 2009

This article describes using Kentucky profiling data to evaluate which combinations of data and institutions lead particular econometric estimators to work well. An approach known as “propensity score matching” is used to properly form a valid comparison group.

Trends in Long-term Unemployment

This Spotlight on Statistics examines trends in long-term unemployment and the characteristics of people who have experienced it.

2013 Memo from Michigan Workforce Development official to Michigan Works! Agency Directors

Provides policy and procedures for processing profiled claimants in the state of Michigan.