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# **Adult Data Set**

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**Abstract**: Predict whether income exceeds \$50K/yr based on census data. Also known as "Census Income" dataset.



Data Set Characteristics:	Multivariate	Number of Instances:	48842	Area:	Social
Attribute Characteristics:	Categorical, Integer	Number of Attributes:	14	Date Donated	1996-05- 01
Associated Tasks:	Classification	Missing Values?	Yes	Number of Web Hits:	2761360

#### Source:

Donor:

Ronny Kohavi and Barry Becker Data Mining and Visualization Silicon Graphics. e-mail: ronnyk '@' live.com for questions.

#### **Data Set Information:**

Extraction was done by Barry Becker from the 1994 Census database. A set of reasonably clean records was extracted using the following conditions: ((AAGE>16) && (AGI>100) && (AFNLWGT>1)&& (HRSWK>0))

Prediction task is to determine whether a person makes over 50K a year.

#### **Attribute Information:**

Listing of attributes:

>50K, <=50K.

age: continuous.

workclass: Private, Self-emp-not-inc, Self-emp-inc, Federal-gov, Local-gov, State-gov, Without-pay, Never-worked. fnlwqt: continuous.

education: Bachelors, Some-college, 11th, HS-grad, Prof-school, Assoc-acdm, Assoc-voc, 9th, 7th-8th, 12th, Masters, 1st-4th, 10th, Doctorate, 5th-6th, Preschool.

education-num: continuous.

marital-status: Married-civ-spouse, Divorced, Never-married, Separated, Widowed, Married-spouse-absent, Married-AF-spouse.

occupation: Tech-support, Craft-repair, Other-service, Sales, Exec-managerial, Prof-specialty, Handlers-cleaners, Machine-op-inspct, Adm-clerical, Farming-fishing, Transport-moving, Priv-house-serv, Protective-serv, Armed-Forces. relationship: Wife, Own-child, Husband, Not-in-family, Other-relative, Unmarried.

race: White, Asian-Pac-Islander, Amer-Indian-Eskimo, Other, Black.

sex: Female, Male. capital-gain: continuous. capital-loss: continuous. hours-per-week: continuous.

native-country: United-States, Cambodia, England, Puerto-Rico, Canada, Germany, Outlying-US(Guam-USVI-etc), India, Japan, Greece, South, China, Cuba, Iran, Honduras, Philippines, Italy, Poland, Jamaica, Vietnam, Mexico, Portugal, Ireland, France, Dominican-Republic, Laos, Ecuador, Taiwan, Haiti, Columbia, Hungary, Guatemala, Nicaragua, Scotland, Thailand, Yugoslavia, El-Salvador, Trinadad&Tobago, Peru, Hong, Holand-Netherlands.

## **Relevant Papers:**

Ron Kohavi, "Scaling Up the Accuracy of Naive-Bayes Classifiers: a Decision-Tree Hybrid", Proceedings of the Second International Conference on Knowledge Discovery and Data Mining, 1996
[Web Link]

## Papers That Cite This Data Set<sup>1</sup>:



Rakesh Agrawal and Ramakrishnan ikant and Dilys Thomas. <u>Privacy Preserving OLAP</u>. SIGMOD Conference. 2005. [View Context].

Wei-Chun Kao and Kai-Min Chung and Lucas Assun and Chih-Jen Lin. <u>Decomposition Methods for Linear Support Vector Machines</u>. Neural Computation, 16. 2004. [View Context].

Saharon Rosset. Model selection via the AUC. ICML. 2004. [View Context].

Rich Caruana and Alexandru Niculescu-Mizil. <u>An Empirical Evaluation of Supervised Learning for ROC Area</u>. ROCAI. 2004. [View Context].

Rich Caruana and Alexandru Niculescu-Mizil and Geoff Crew and Alex Ksikes. <u>Ensemble selection from libraries of models</u>. ICML. 2004. [View Context].

Bianca Zadrozny. Learning and evaluating classifiers under sample selection bias. ICML. 2004. [View Context].

Bart Hamers and J. A. K Suykens. <u>Coupled Transductive Ensemble Learning of Kernel Models</u>. Bart De Moor. 2003. [View Context].

Andrew W. Moore and Weng-Keen Wong. <u>Optimal Reinsertion: A New Search Operator for Accelerated and More Accurate Bayesian Network Structure Learning. ICML. 2003. [View Context].</u>

Alexander J. Smola and Vishy Vishwanathan and Eleazar Eskin. Laplace Propagation. NIPS. 2003. [View Context].

I. Yoncaci. <u>Maximum a Posteriori Tree Augmented Naive Bayes Classifiers</u>. O EN INTEL.LIG `ENCIA ARTIFICIAL CSIC. 2003. [<u>View Context</u>].

Christopher R. Palmer and Christos Faloutsos. <u>Electricity Based External Similarity of Categorical Attributes</u>. PAKDD. 2003. [View Context].

S. Sathiya Keerthi and Chih-Jen Lin. <u>Asymptotic Behaviors of Support Vector Machines with Gaussian Kernel</u>. Neural Computation, 15. 2003. [View Context].

Thomas Serafini and G. Zanghirati and Del Zanna and T. Serafini and Gaetano Zanghirati and Luca Zanni. <u>DIPARTIMENTO DI MATEMATICA</u>. Gradient Projection Methods for. 2003. [View Context].

S. Sathiya Keerthi and Kaibo Duan and Shirish Krishnaj Shevade and Aun Neow Poo. <u>A Fast Dual Algorithm for Kernel Logistic Regression</u>. ICML. 2002. [View Context].

Ramesh Natarajan and Edwin P D Pednault. <u>Segmented Regression Estimators for Massive Data Sets</u>. SDM. 2002. [View Context].

Bianca Zadrozny and Charles Elkan. <u>Transforming classifier scores into accurate multiclass probability estimates</u>. KDD. 2002. [View Context].

Nitesh V. Chawla and Kevin W. Bowyer and Lawrence O. Hall and W. Philip Kegelmeyer. <u>SMOTE: Synthetic Minority Over-sampling Technique</u>. J. Artif. Intell. Res. (JAIR, 16. 2002. [<u>View Context</u>].

Stephen D. Bay. Multivariate Discretization for Set Mining. Knowl. Inf. Syst, 3. 2001. [View Context].

Bernhard Pfahringer and Geoffrey Holmes and Richard Kirkby. <u>Optimizing the Induction of Alternating Decision Trees</u>. PAKDD. 2001. [View Context].

Stephen D. Bay and Michael J. Pazzani. <u>Detecting Group Differences: Mining Contrast Sets</u>. Data Min. Knowl. Discov, 5. 2001. [View Context].

Jie Cheng and Russell Greiner. <u>Learning Bayesian Belief Network Classifiers: Algorithms and System</u>. Canadian Conference on Al. 2001. [View Context].

Zhiyuan Chen and Johannes Gehrke and Flip Korn. <u>Query Optimization In Compressed Database Systems</u>. SIGMOD Conference. 2001. [View Context].

Kristin P. Bennett and Ayhan Demiriz and John Shawe-Taylor. <u>A Column Generation Algorithm For Boosting</u>. ICML. 2000. [View Context].

Dmitry Pavlov and Jianchang Mao and Byron Dom. <u>Scaling-Up Support Vector Machines Using Boosting Algorithm</u>. ICPR. 2000. [View Context].

Gary M. Weiss and Haym Hirsh. <u>A Quantitative Study of Small Disjuncts: Experiments and Results</u>. Department of Computer Science Rutgers University. 2000. [View Context].

Dmitry Pavlov and Darya Chudova and Padhraic Smyth. <u>Towards scalable support vector machines using squashing</u>. KDD. 2000. [View Context].

Petri Kontkanen and Jussi Lahtinen and Petri Myllymaki and Tomi Silander and Henry Tirri. <u>Proceedings of Pre- and Post-processing in Machine Learning and Data Mining: Theoretical Aspects and Applications, a workshop within Machine Learning and Applications</u>. Complex Systems Computation Group (CoSCo). 1999. [View Context].

Jie Cheng and Russell Greiner. Comparing Bayesian Network Classifiers. UAI. 1999. [View Context].

Yk Huhtala and Juha Kärkkäinen and Pasi Porkka and Hannu Toivonen. <u>Efficient Discovery of Functional and Approximate Dependencies Using Partitions</u>. ICDE. 1998. [View Context].

John C. Platt. <u>Using Analytic QP and Sparseness to Speed Training of Support Vector Machines</u>. NIPS. 1998. [<u>View Context</u>].

Ron Kohavi. Scaling Up the Accuracy of Naive-Bayes Classifiers: A Decision-Tree Hybrid. KDD. 1996. [View Context].

Luc Hoegaerts and J. A. K Suykens and J. Vandewalle and Bart De Moor. <u>Primal Space Sparse Kernel Partial Least Squares Regression for Large Scale Problems Special Session paper</u>. Katholieke Universiteit Leuven Department of Electrical Engineering, ESAT-SCD-SISTA. [View Context].

Kuan-ming Lin and Chih-Jen Lin. <u>A Study on Reduced Support Vector Machines</u>. Department of Computer Science and Information Engineering National Taiwan University. [View Context].

Luca Zanni. An Improved Gradient Projection-based Decomposition Technique for Support Vector Machines. Dipartimento di Matematica, Universitdi Modena e Reggio Emilia. [View Context].

Jeff G. Schneider and Andrew W. Moore. <u>Active Learning in Discrete Input Spaces</u>. School of Computer Science Carnegie Mellon University. [<u>View Context</u>].

Omid Madani and David M. Pennock and Gary William Flake. <u>Co-Validation: Using Model Disagreement to Validate Classification Algorithms</u>. Yahoo! Research Labs. [View Context].

Ron Kohavi and Barry G. Becker and Dan Sommerfield. <u>Improving Simple Bayes</u>. Data Mining and Visualization Group Silicon Graphics, Inc. [View Context].

Shi Zhong and Weiyu Tang and Taghi M. Khoshgoftaar. <u>Boosted Noise Filters for Identifying Mislabeled Data</u>. Department of Computer Science and Engineering Florida Atlantic University. [View Context].

David R. Musicant. <u>DATA MINING VIA MATHEMATICAL PROGRAMMING AND MACHINE LEARNING</u>. Doctor of Philosophy (Computer Sciences) UNIVERSITY. [<u>View Context</u>].

William W. Cohen and Yoram Singer. <u>A Simple, Fast, and Effective Rule Learner</u>. AT&T Labs--Research Shannon Laboratory. [View Context].

Haixun Wang and Philip S. Yu. <u>SSDT-NN: A Subspace-Splitting Decision Tree Classifier with Application to Target Selection</u>. IBM T. J. Watson Research Center. [View Context].

S. V. N Vishwanathan and Alexander J. Smola and M. Narasimha Murty. <u>considerably faster than competing methods such as Sequential Minimal Optimization or the Nearest Point Algorithm</u>. Machine Learning Program, National ICT for Australia. [View Context].

Grigorios Tsoumakas and Ioannis P. Vlahavas. <u>Fuzzy Meta-Learning: Preliminary Results</u>. Greek Secretariat for Research and Technology. [<u>View Context</u>].

Josep Roure Alcobe. <u>Incremental Hill-Climbing Search Applied to Bayesian Network Structure Learning</u>. Escola Universitria Politcnica de Mataro. [View Context].

Ayhan Demiriz and Kristin P. Bennett and John Shawe and I. Nouretdinov V.. <u>Linear Programming Boosting via Column Generation</u>. Dept. of Decision Sciences and Eng. Systems, Rensselaer Polytechnic Institute. [View Context].

Chris Giannella and Bassem Sayrafi. <u>An Information Theoretic Histogram for Single Dimensional Selectivity Estimation</u>. Department of Computer Science, Indiana University Bloomington. [View Context].

Rong-En Fan and P. -H Chen and C. -J Lin. <u>Working Set Selection Using the Second Order Information for Training SVM</u>. Department of Computer Science and Information Engineering National Taiwan University. [View Context].

Petri Kontkanen and Jussi Lahtinen and Petri Myllymaki and Tomi Silander and Henry Tirri. <u>USING BAYESIAN NETWORKS FOR VISUALIZING HIGH-DIMENSIONAL DATA</u>. Complex Systems Computation Group (CoSCo). [<u>View Context</u>].

Ahmed Hussain Khan and Intensive Care. Multiplier-Free Feedforward Networks. 174. [View Context].

Luc Hoegaerts and J. A. K Suykens and J. Vandewalle and Bart De Moor. <u>Subset Based Least Squares Subspace Regression in RKHS</u>. Katholieke Universiteit Leuven Department of Electrical Engineering, ESAT-SCD-SISTA. [View <u>Context</u>].

David R. Musicant and Alexander Feinberg. Active Set Support Vector Regression. [View Context].

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