COMP3411 Artificial Intelligence, T1 2020 - ASSIGNMENT 2 (Machine Learning)

Acknowledgement:
Used the following resources for Q1:
- Poole & Mackworth, Artificial Intelligence: Foundations of Computational Agents, Chapter 7, Supervised Machine Learning)
- https://webcms3.cse.unsw.edu.au/static/uploads/course/COMP3411/20T1/0cd4a17f411ad96b1dd614a033f67676fbf70a7e70e73693abc173926aa71f21/7.2_Decision_Trees.pdf

Question 1: Decision Trees
a) *Suppose you change the algorithm to always select the first element of the list of features. What tree is found when the features are in the order [Author, Thread, Length, WhereRead]? Does*
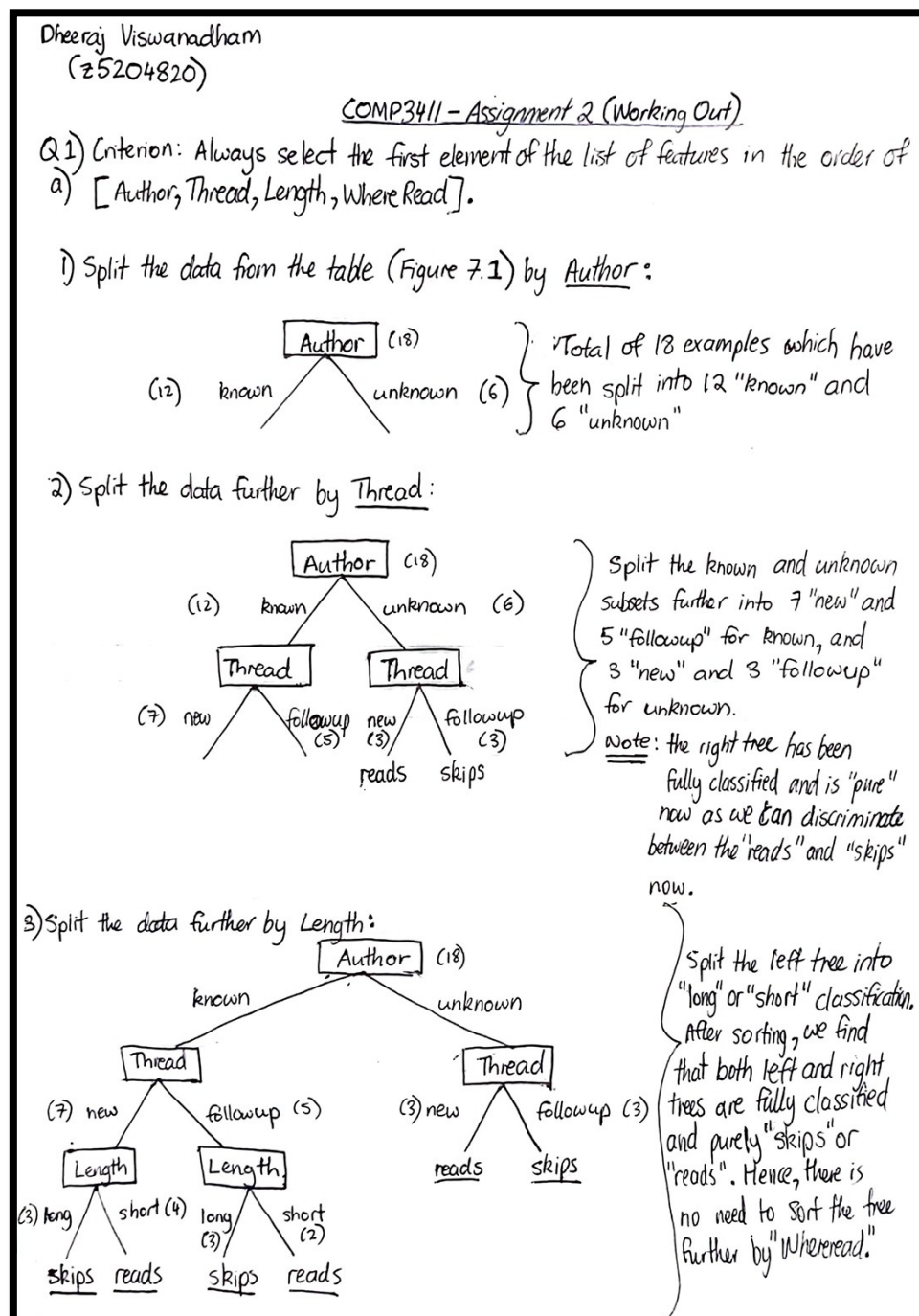
> *this tree represent a different function than that found with the maximum information gain split? Explain.*

As seen from the above decision tree based on always selecting the first element of the list of features in the order of [*Author*, *Thread*, *Length*, *WhereRead*], the stopping criterion of all of the examples having the same classification (either "reads" or "skips") has been reached. If we compare this to the decision tree of Figure 7.6 which was based on giving the maximum information gain, we can observe it as below.
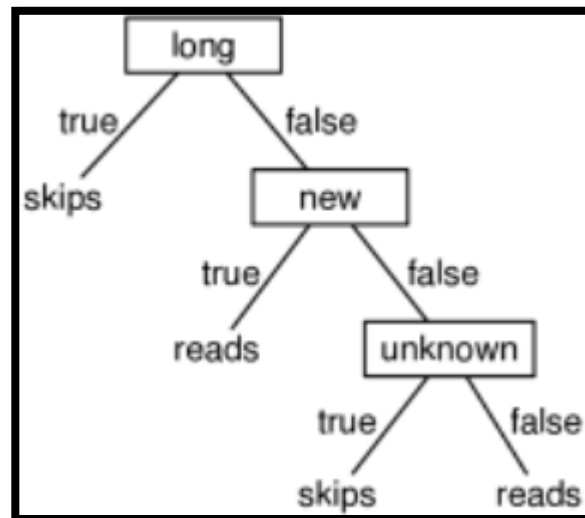

Figure 7.6 (Poole & Mackworth)

Hence, we can evidently see that our tree represents a different function than the tree given in Figure 7.6 as they both follow different rules to each other. For example, by taking a closer look, we can observe that in some situations they both output different results to each other when given the same inputs. If we have the following inputs – *Author* = unknown, *Thread* = new & *Length* = long, for the first-selection tree, we would get '**reads**' as our output, however in the maximum information gain tree, we would instead get '**skips**' as the output.

If we pass in e19 and e20 o the above two trees:

Maximum information gain split decision tree (Figure 7.6):
E19 = **skips**;
E20 = skips.

Our tree in part (A):
E19 = **reads**;
E20 = skips.

Therefore, for e19, there are different outputs being generated by the two trees and proves that they have different functions to each other.

b) *What tree is found when the features are in the order [WhereRead, Thread, Length, Author]? Does this tree represent a different function than that found with the maximum information gain split or the one given for the preceding part? Explain.*
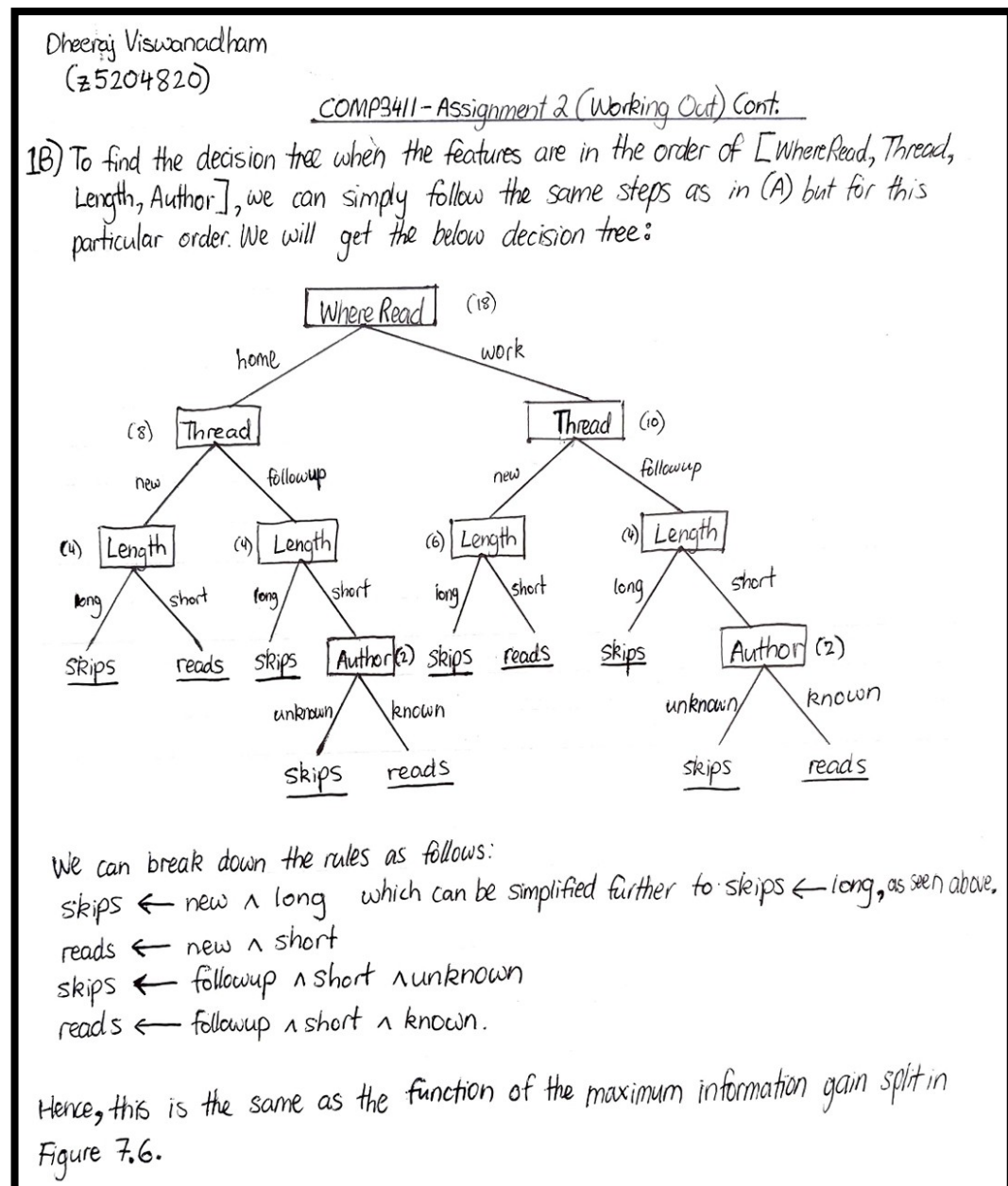
As seen from the above decision tree, it follows the same rules and function as the maximum information gain split tree shown in Figure 7.6. From our answer in part (A), we found that the decision tree in Figure 7.6 followed a different function than the one in the part (A) and since our decision tree in part (B) is similar to the decision tree in Figure 7.6, we can deduce that the decision tree above has a different function to the decision tree in part (A). This means that given the same inputs, both decision trees of part (B) and Figure 7.6 will return the same output however the decision tree in part (A) may return a different output. E.g. *Author* = unknown, *Thread* = new, *Length* = long & *WhereRead* = home, for the decision tree in part (A), we would get 'reads' as our output, however for the decision trees in Figure 7.6 and part (B), we would instead get 'skips' as the output.

I.e. Part (B) decision tree function == Figure 7.6 decision tree function;
 Figure 7.6 decision tree function != Part (A) decision tree function;
 Therefore → Part (B) decision tree function != Part (A) decision tree function.

However, even though the tree in part (B) and the tree in Figure 7.6 return the same outputs when given the same inputs, they do differ in compactness and efficiency as the maximum information gain utilises entropy to get the best discriminatory results of 'reads' and 'skips' when given the particular feature. However, for the tree in part (B), it evidently takes longer to reach that same result as it is not able to utilise this entropy and is less compact and efficient as a result.

   c) *Is there a tree that correctly classifies the training examples but represents a different function than those found by the preceding algorithms? If so, give it. If not, explain why.*

If we have a look at the decision trees given in part (A) and Figure 7.6, we can observe that there will be many trees that will correctly classify the given training examples but represent different functions as depicted below.
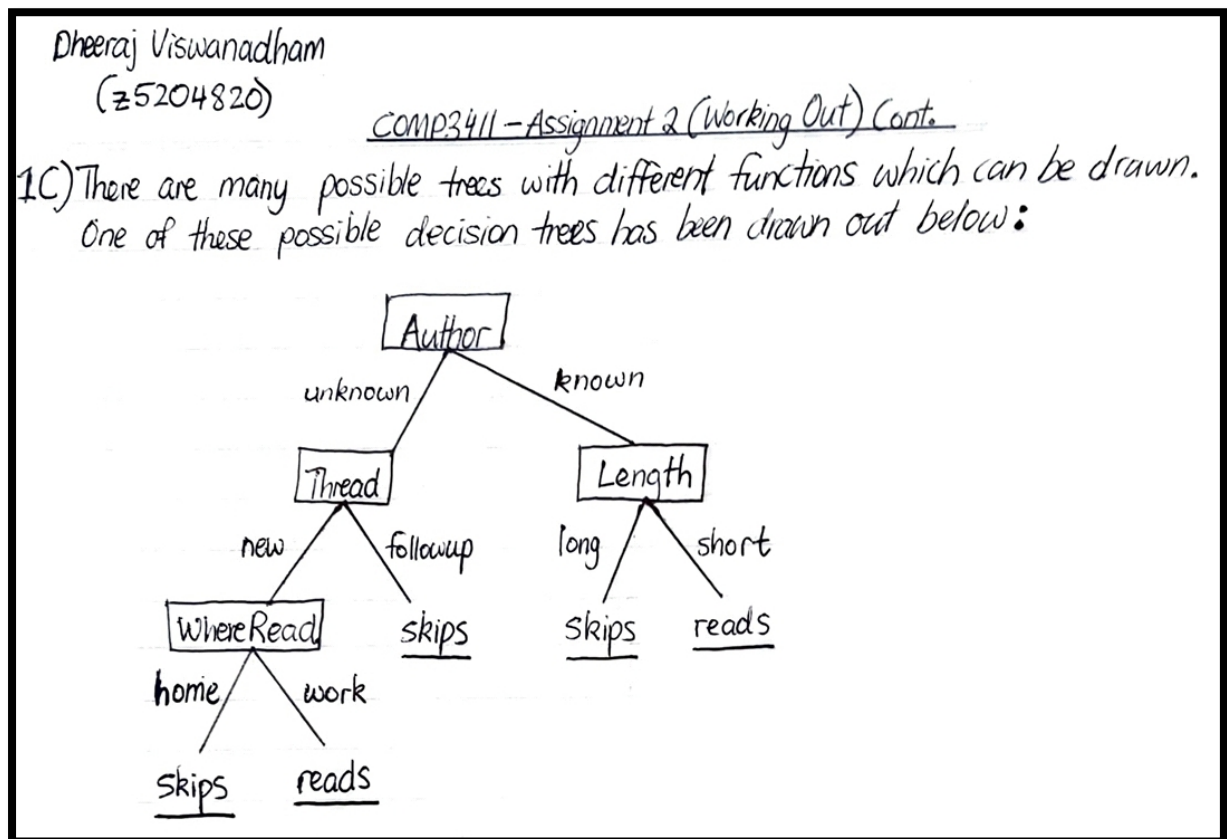
This decision tree correctly classifies the training examples given in Figure 7.1 (which is on the Assignment 2 specifications). However, it differs to Figure 7.6 and the preceding algorithms in the sense that it has a different function and hence can produce different outputs when given the same inputs.

For example, through brute-forcing, we find that one of the possible inputs is:

Author = unknown, **Thread** = new, **WhereRead** = home & **Length** = short

which produces '**skips**' as the output, however for the preceding algorithms given in parts (A) and (B), they produce '**reads**' as the output. I.e. the features in the order of [*Author*, *Thread*, *WhereRead*, *Length*] can be seen to produce some different outputs as shown above.

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Question 2: Decision Trees

Resources used:
- https://www.youtube.com/watch?v=3VS7tEJfDDs (to convert .test and .data file format into ARFF format)
- https://webcms3.cse.unsw.edu.au/COMP3411/20T1/resources/44509 (followed instructions to create decision tree in WEKA)
- https://www.youtube.com/watch?v=ncR_6UsuggY (determining best pruning parameters for WEKA)

I used WEKA (as I found it much easier to use) for building the model of the adult dataset, as shown below.

Method/Steps taken:

I had converted the adult.data and adult.test file into CSV format and took the attributes from the adult.names file (i.e. the 15 attributes – age, workclass, fnlwgt, education, education-num, marital-status, occupation, relationship, race, sex, capital-gain, capital-loss, hours-per-week, native-country & **Predicted_Income** which determined whether it was <= 50K or > 50K based on the inputs given). I had combined the data file and test file and made the csv file from that. Then, in Weka, I saved the csv file into an ARFF file which worked as shown from the screenshot below:
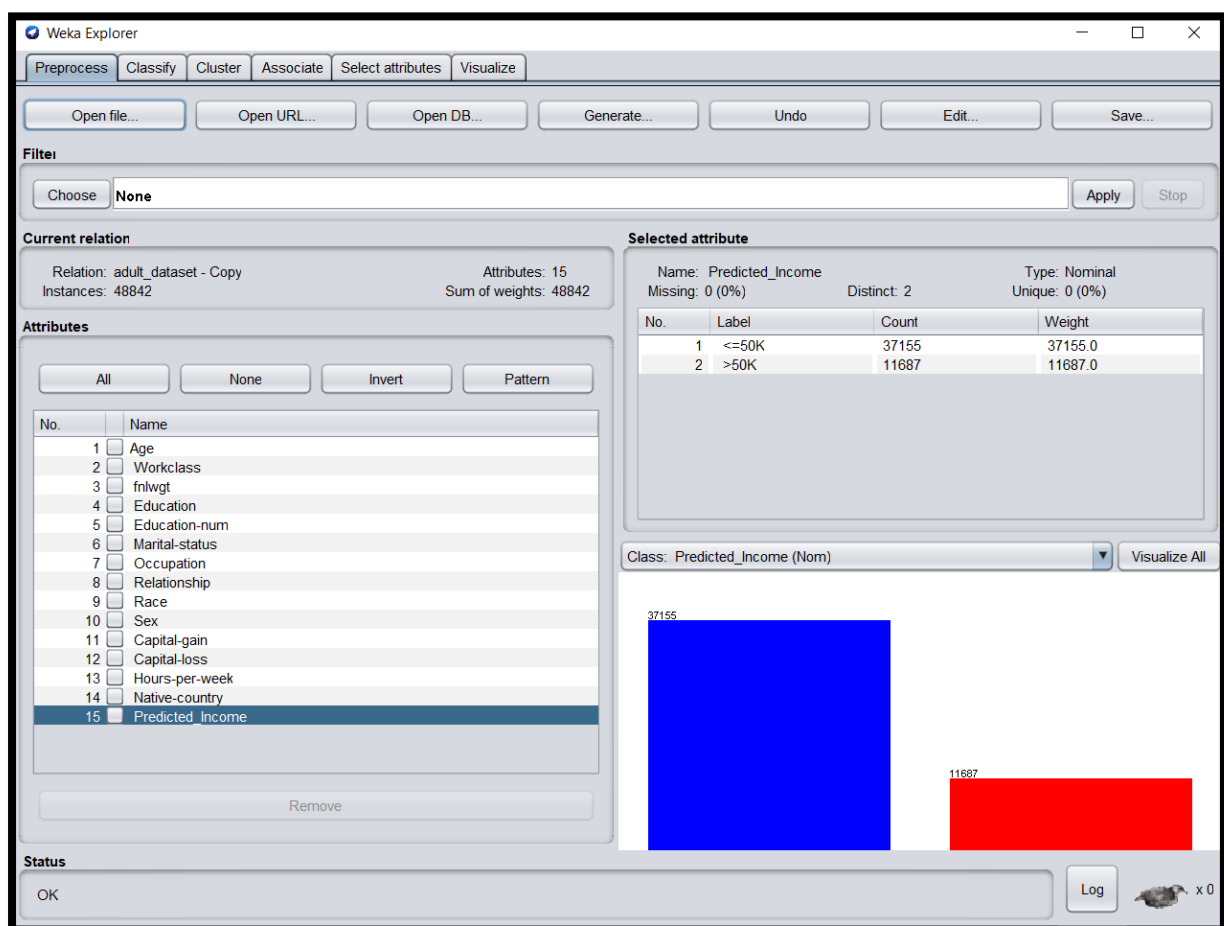
I then went to the Classify tab at the top of the window and ran the J48 classifier. The results for both Cross-validation (10-fold) (model shown on page 11) and Percentage split (66%) (model shown on page

50), is shown below on a **pruned tree**. I chose a pruned tree to try and increase the accuracy as I found that when I experimented with the different parameters of the J48 classifier, the unpruned tree was less accurate in both cross-validation and percentage-split cases, sometimes differing up to 2% in accuracy.

For simplicities sake I have taken screenshots of the accuracy relating to each type of parameters that I experimented with to try and increase the overall accuracy of the model.

Cross validation of 10-folds on Fully pruned tree:

```
Time taken to build model: 1.54 seconds


=== Stratified cross-validation ===
=== Summary ===


Correctly Classified Instances        41987               85.9649 %
Incorrectly Classified Instances       6855               14.0351 %
Kappa statistic                          0.5851
Mean absolute error                      0.1939
Root mean squared error                  0.3214
Relative absolute error                 53.2542 %
Root relative squared error             75.3278 %
Total Number of Instances            48842
```

Cross validation of 10-folds on Unpruned tree:

```
Time taken to build model: 1.43 seconds


=== Stratified cross-validation ===
=== Summary ===


Correctly Classified Instances        41199               84.3516 %
Incorrectly Classified Instances       7643               15.6484 %
Kappa statistic                          0.5561
Mean absolute error                      0.1852
Root mean squared error                  0.3496
Relative absolute error                 50.8679 %
Root relative squared error             81.9532 %
Total Number of Instances            48842
```

Percentage-split of 66% on Fully pruned tree:

```
Time taken to test model on test split: 0.02 seconds


=== Summary ===


Correctly Classified Instances       14252              85.8244 %
Incorrectly Classified Instances      2354              14.1756 %
Kappa statistic                          0.5805
Mean absolute error                      0.1974
Root mean squared error                  0.3236
Relative absolute error                 54.2704 %
Root relative squared error             75.9866 %
Total Number of Instances            16606
```

Percentage-split of 66% on Unpruned tree:

```
Time taken to test model on test split: 0.01 seconds


=== Summary ===


Correctly Classified Instances       13924              83.8492 %
Incorrectly Classified Instances      2682              16.1508 %
Kappa statistic                          0.5337
Mean absolute error                      0.1881
Root mean squared error                  0.3564
Relative absolute error                 51.7048 %
Root relative squared error             83.7068 %
Total Number of Instances            16606
```

Sub-tree raising turned off for cross validation (10 folds):

```
Time taken to build model: 2.06 seconds

=== Stratified cross-validation ===
=== Summary ===

Correctly Classified Instances       41985              85.9609 %
Incorrectly Classified Instances      6857              14.0391 %
Kappa statistic                          0.5835
Mean absolute error                      0.1961
Root mean squared error                  0.3232
Relative absolute error                 53.8616 %
Root relative squared error             75.7633 %
Total Number of Instances            48842
```

Sub-tree raising turned off for percentage split (66%):

```
Time taken to test model on test split: 0.01 seconds

=== Summary ===

Correctly Classified Instances        14230              85.6919 %
Incorrectly Classified Instances       2376              14.3081 %
Kappa statistic                           0.5742
Mean absolute error                       0.1964
Root mean squared error                   0.3284
Relative absolute error                  53.9973 %
Root relative squared error              77.1334 %
Total Number of Instances             16606
```

It was also found that the unpruned models resulted in much larger trees which would make it harder to understand, as shown below – where the tree was almost 10 times bigger! Hence, it is better to stick with the much simpler decision structure of the pruned tree which is more accurate as well and guards against overfitting (a modelling error that occurs when a function is too closely fit to a limited set of data points).

Cross-validation (10 folds): Pruned is left pic, unpruned is right pic

```
Number of Leaves   :      915        Number of Leaves   :      9106

Size of the tree :       1159        Size of the tree :      10680
```

The unpruned trees were found to be less accurate to their pruned counterparts. Additionally, when sub-tree raising (which prunes the interior node and raises the subtree beneath that interior node up one level) was turned off the accuracy slightly decreased for both cross-validation (10 folds) and percentage split (66%).

I also found that the more folds there were in the cross-validation test option, then the less accurate the model was, as shown below.

5 folds:

```
Time taken to build model: 2.28 seconds

=== Stratified cross-validation ===
=== Summary ===

Correctly Classified Instances        41997              85.9854 %
Incorrectly Classified Instances       6845              14.0146 %
Kappa statistic                          0.5843
Mean absolute error                      0.1935
Root mean squared error                  0.3213
Relative absolute error                 53.1586 %
Root relative squared error             75.3043 %
Total Number of Instances            48842
```

20 folds:

```
Time taken to build model: 2.16 seconds

=== Stratified cross-validation ===
=== Summary ===

Correctly Classified Instances        41971              85.9322 %
Incorrectly Classified Instances       6871              14.0678 %
Kappa statistic                          0.5829
Mean absolute error                      0.1949
Root mean squared error                  0.3223
Relative absolute error                 53.5242 %
Root relative squared error             75.5509 %
Total Number of Instances            48842
```

Hence, I have successfully mastered the workflow of model building i.e. importing data, cleaning data, splitting data via percentage-split or cross-validation tests, pre-processing, transformations and utilising feature engineering in this question as shown from the screenshots shown above. WEKA greatly assisted in doing this as it did all the above in the background and showed us the final result. The J48 algorithm includes methods for handling missing values and one method would be for the algorithm estimating, based on the other adult training examples, the most likely value, allowing me to let the algorithm take care of missing values.

Conclusion:

Overall, I found from the above experimentation with the different parameters that the best option of **percentage split at 83%** was found to return the **highest percentage accuracy** of the model as shown below at **86.35%** (2 dec. pl.):

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<u>Cross-validation (10-fold) on fully-pruned tree:</u>

=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 0.25 -M 2

Relation: adult_dataset - Copy

Instances: 48842

Attributes: 15

      Age

      Workclass

      fnlwgt

      Education

      Education-num

      Marital-status

      Occupation

      Relationship

      Race

      Sex

      Capital-gain

      Capital-loss

      Hours-per-week

      Native-country

      Predicted_Income

Test mode: 10-fold cross-validation

=== Classifier model (full training set) ===

J48 pruned tree

 Capital-gain <= 6849

| Marital-status = Never-married

| | Education-num <= 12

| | | Capital-loss <= 2206: <=50K (12461.0/146.0)

| | | Capital-loss > 2206

| | | | Capital-loss <= 2377: <=50K (17.0/3.0)

| | | | Capital-loss > 2377: >50K (11.0/1.0)

| | Education-num > 12

| | | Education-num <= 14

| | | | Capital-loss <= 1485: <=50K (3075.0/259.0)

| | | | Capital-loss > 1485

| | | | | Capital-loss <= 1573: >50K (21.0/4.0)

| | | | | Capital-loss > 1573: <=50K (109.0/14.0)

| | | Education-num > 14

| | | | Age <= 32: <=50K (82.0/9.0)

| | | | Age > 32

| | | | | Capital-loss <= 1485

| | | | | | Occupation = Adm-clerical: >50K (1.0)

| | | | | | Occupation = Exec-managerial

| | | | | | | Age <= 36: <=50K (2.0)

| | | | | | | Age > 36: >50K (13.0/2.0)

| | | | | | Occupation = Handlers-cleaners: <=50K (0.0)

| | | | | | Occupation = Prof-specialty

| | | | | | | Race = White

| | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | Education = Doctorate

| | | | | | | | | Capital-gain <= 2387

| | | | | | | | | | | | fnlwgt <= 265932: <=50K (31.0/8.0)

| | | P | | | | | | | | fnlwgt > 265932: >50K (11.0/3.0)

| | | | | | | | | | | Capital-gain > 2387: >50K (2.0)

| | | | | | | | | Education = Prof-school

| | | | | | | | | | Workclass = State-gov: <=50K (3.0/1.0)

| | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | Age <= 56

| | | | | | | | | | | | Hours-per-week <= 39: <=50K (3.0/1.0)

| | | | | | | | | | | | Hours-per-week > 39: >50K (6.0)

| | | | | | | | | | | Age > 56: <=50K (4.0)

| | | | | | | | | | Workclass = Private

| | | | | | | | | | | fnlwgt <= 162165: >50K (5.0)

| | | | | | | | | | | fnlwgt > 162165: <=50K (10.0/2.0)

| | | | | | | | | | Workclass = Federal-gov: >50K (2.0)

| | | | | | | | | | Workclass = Local-gov

| | | | | | | | | | | fnlwgt <= 205528: >50K (2.0)

| | | | | | | | | | | fnlwgt > 205528: <=50K (2.0)

| | | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | Workclass = Self-emp-inc: >50K (1.0)

| | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Race = Black: <=50K (4.0)

| | | | | | | | Race = Asian-Pac-Islander: >50K (3.0/1.0)

| | | | | | | | Race = Amer-Indian-Eskimo: >50K (1.0)

| | | | | | | | Race = Other: >50K (1.0)

| | | | | | | Occupation = Other-service: <=50K (2.0/1.0)

| | | | | | | Occupation = Sales: <=50K (1.0)

| | | | | | | Occupation = Craft-repair: >50K (1.0)

| | | | | | | Occupation = Transport-moving: <=50K (0.0)

| | | | | | | Occupation = Farming-fishing: <=50K (2.0)

| | | | | | | Occupation = Machine-op-inspct: >50K (1.0)

| | | | | | | Occupation = Tech-support: <=50K (0.0)

| | | | | | | Occupation = ?: <=50K (2.0/1.0)

| | | | | | | Occupation = Protective-serv: <=50K (0.0)

| | | | | | | Occupation = Armed-Forces: <=50K (0.0)

| | | | | | | Occupation = Priv-house-serv: <=50K (0.0)

| | | | | | Capital-loss > 1485: >50K (16.0/2.0)

| Marital-status = Married-civ-spouse

| | Capital-loss <= 1844

| | | Education-num <= 11

| | | | Education-num <= 8

| | | | | Capital-gain <= 4101: <=50K (2447.0/236.0)

| | | | | Capital-gain > 4101

| | | | | | Capital-gain <= 5060

| | | | | | | Capital-gain <= 4416

| | | | | | | | Native-country = United-States: >50K (7.0/1.0)

| | | | | | | | Native-country = Cuba: >50K (0.0)

| | | | | | | | Native-country = Jamaica: >50K (0.0)

| | | | | | | | Native-country = India: >50K (0.0)

| | | | | | | | Native-country = ?: >50K (0.0)

| | | | | | | | Native-country = Mexico: <=50K (2.0)

| | | | | | | | Native-country = South: >50K (0.0)

| | | | | | | | Native-country = Puerto-Rico: >50K (0.0)

| | | | | | | | Native-country = Honduras: >50K (0.0)

| | | | | | | | Native-country = England: >50K (0.0)

| | | | | | | | Native-country = Canada: >50K (0.0)

| | | | | | | | Native-country = Germany: >50K (0.0)

| | | | | | | | Native-country = Iran: >50K (0.0)

| | | | | | | | Native-country = Philippines: >50K (0.0)

| | | | | | | | | | Native-country = Italy: >50K (0.0)

| | | | | | | | | | Native-country = Poland: >50K (0.0)

| | | | | | | | | | Native-country = Columbia: >50K (0.0)

| | | | | | | | | | Native-country = Cambodia: >50K (0.0)

| | | | | | | | | | Native-country = Thailand: >50K (0.0)

| | | | | | | | | | Native-country = Ecuador: >50K (0.0)

| | | | | | | | | | Native-country = Laos: >50K (0.0)

| | | | | | | | | | Native-country = Taiwan: >50K (0.0)

| | | | | | | | | | Native-country = Haiti: >50K (0.0)

| | | | | | | | | | Native-country = Portugal: >50K (0.0)

| | | | | | | | | | Native-country = Dominican-Republic: >50K (0.0)

| | | | | | | | | | Native-country = El-Salvador: >50K (0.0)

| | | | | | | | | | Native-country = France: >50K (0.0)

| | | | | | | | | | Native-country = Guatemala: >50K (0.0)

| | | | | | | | | | Native-country = China: >50K (0.0)

| | | | | | | | | | Native-country = Japan: >50K (0.0)

| | | | | | | | | | Native-country = Yugoslavia: >50K (0.0)

| | | | | | | | | | Native-country = Peru: >50K (0.0)

| | | | | | | | | | Native-country = Outlying-US(Guam-USVI-etc): >50K (0.0)

| | | | | | | | | | Native-country = Scotland: >50K (0.0)

| | | | | | | | | | Native-country = Trinadad&Tobago: >50K (0.0)

| | | | | | | | | | Native-country = Greece: >50K (1.0)

| | | | | | | | | | Native-country = Nicaragua: >50K (0.0)

| | | | | | | | | | Native-country = Vietnam: >50K (0.0)

| | | | | | | | | | Native-country = Hong: >50K (0.0)

| | | | | | | | | | Native-country = Ireland: >50K (0.0)

| | | | | | | | | | Native-country = Hungary: >50K (0.0)

| | | | | | | | | | Native-country = Holand-Netherlands: >50K (0.0)

| | | | | | | | Capital-gain > 4416: <=50K (15.0)

| | | | | | | Capital-gain > 5060: >50K (16.0)

| | | | | Education-num > 8

| | | | | | Capital-gain <= 5060

| | | | | | | Age <= 29: <=50K (1660.0/225.0)

| | | | | | | Age > 29

| | | | | | | | Hours-per-week <= 34: <=50K (946.0/141.0)

| | | | | | | | Hours-per-week > 34

| | | | | | | | | Education-num <= 9

| | | | | | | | | | Age <= 35: <=50K (1182.0/261.0)

| | | | | | | | | | Age > 35

| | | | | | | | | | | Workclass = State-gov

| | | | | | | | | | | | Hours-per-week <= 53

| | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Husband: <=50K (108.0/26.0)

| | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | fnlwgt <= 189013: <=50K (10.0/3.0)

| | | | | | | | | | | | | | fnlwgt > 189013: >50K (6.0/1.0)

| | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Other-relative: <=50K (2.0)

| | | | | | | | | | | | Hours-per-week > 53: >50K (7.0/1.0)

| | | | | | | | | | | Workclass = Self-emp-not-inc: <=50K (515.0/115.0)

| | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | Capital-loss <= 1510

| | | | | | | | | | | | | Occupation = Adm-clerical

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband

| | | | | | | | | | | | | | | Hours-per-week <= 51: <=50K (105.0/35.0)

| | | | | | | | | | | | | | | Hours-per-week > 51: >50K (7.0/1.0)

| | | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | | Hours-per-week <= 52

| | | | | | | | | | | | | | | | Age <= 40: >50K (18.0/4.0)

| | | | | | | | | | | | | | | | Age > 40: <=50K (53.0/22.0)

| | | | | | | | | | | | | | | Hours-per-week > 52: <=50K (4.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (1.0)

| | | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | P | | | | | | | | | | | Relationship = Other-relative: <=50K (3.0)

| | | | | | | | | | | | | | Occupation = Exec-managerial

| | | | | | | | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband: >50K (183.0/81.0)

| | | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | | Age <= 47: >50K (13.0/4.0)

| | | | | | | | | | | | | | | Age > 47: <=50K (9.0/1.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (1.0)

| | | | | | | | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: >50K (1.0)

| | | | | | | | | | | | | | Occupation = Handlers-cleaners

| | | | | | | | | | | | | | Race = White

| | | | | | | | | | | | | | | Sex = Male: <=50K (109.0/34.0)

| | | | | | | | | | | | | | | Sex = Female: >50K (3.0)

| | | | | | | | | | | | | | Race = Black: <=50K (19.0/2.0)

| | | | | | | | | | | | | | Race = Asian-Pac-Islander: >50K (1.0)

| | | | | | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | | | | | | Occupation = Prof-specialty: <=50K (60.0/27.0)

| | | | | | | | | | | | | | Occupation = Other-service: <=50K (141.0/20.0)

| | | | | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | | | | Hours-per-week <= 63: <=50K (249.0/92.0)

| | | | | | | | | | | | | | | Hours-per-week > 63: >50K (10.0/2.0)

| | | | | | | | | | | | | | Occupation = Craft-repair: <=50K (768.0/270.0)

| | | | | | | | | | | | | | Occupation = Transport-moving: <=50K (329.0/115.0)

| | | | | | | | | | | | | | Occupation = Farming-fishing

| | | | | | | | | | | | | | | Age <= 49: <=50K (27.0)

| | | | | | | | | | | | | | | Age > 49

| | | | | | | | | | | | | | | | Hours-per-week <= 51: <=50K (16.0/3.0)

| | | | | | | | | | | | | | | | Hours-per-week > 51

| | | | | | | | | | | | | | | | | Hours-per-week <= 56: >50K (2.0)

```
| | | | | | | | | | | | | | | | | |   Hours-per-week > 56
| | | | | | | | | | | | | | | | | |   Age <= 51:  >50K (2.0)
| | | | | | | | | | | | | | | | | |   Age > 51:  <=50K (2.0)
| | | | | | | | | | | | | | |   Occupation =  Machine-op-inspct
| | | | | | | | | | | | | |   Capital-gain <= 2993:  <=50K (357.0/106.0)
| | | | | | | | | | | | | |   Capital-gain > 2993
| | | | | | | | | | | | | |    Capital-gain <= 4101
| | | | | | | | | | | | | |    Capital-gain <= 3103:  >50K (4.0)
| | | | | | | | | | | | | |    Capital-gain > 3103:  <=50K (11.0)
| | | | | | | | | | | | | |    Capital-gain > 4101:  >50K (9.0/1.0)
| | | | | | | | | | | | |    Occupation =  Tech-support:  >50K (51.0/23.0)
| | | | | | | | | | | | |    Occupation =  ?:  <=50K (0.0)
| | | | | | | | | | | | |    Occupation =  Protective-serv:  <=50K (30.0/9.0)
| | | | | | | | | | | | |    Occupation =  Armed-Forces:  <=50K (0.0)
| | | | | | | | | | | | |    Occupation =  Priv-house-serv:  <=50K (5.0/1.0)
| | | | | | | | | | | |    Capital-loss > 1510:  <=50K (29.0)
| | | | | | | | | | |   Workclass =  Federal-gov
| | | | | | | | | | |    Occupation =  Adm-clerical
| | | | | | | | | | |     Hours-per-week <= 39:  <=50K (4.0)
| | | | | | | | | | |     Hours-per-week > 39
| | | | | | | | | | |      Race =  White:  >50K (54.0/19.0)
| | | | | | | | | | |      Race =  Black
| | | | | | | | | | |       Hours-per-week <= 45:  <=50K (8.0/2.0)
| | | | | | | | | | |       Hours-per-week > 45:  >50K (3.0)
| | | | | | | | | | |      Race =  Asian-Pac-Islander:  >50K (0.0)
| | | | | | | | | | |      Race =  Amer-Indian-Eskimo:  >50K (0.0)
| | | | | | | | | | |      Race =  Other:  >50K (0.0)
| | | | | | | | | | |    Occupation =  Exec-managerial:  >50K (7.0/2.0)
| | | | | | | | | | |    Occupation =  Handlers-cleaners:  <=50K (1.0)
| | | | | | | | | | |    Occupation =  Prof-specialty:  <=50K (4.0/2.0)
| | | | | | | | | | |    Occupation =  Other-service:  <=50K (3.0/1.0)
| | | | | | | | | | |    Occupation =  Sales:  <=50K (3.0/1.0)
```

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| | | | | | | | | | | |     Occupation =  Craft-repair
| | | | | | | | | | | | |    fnlwgt <= 141558:  >50K (6.0)
| | | | | | | | | | | | |    fnlwgt > 141558
| | | | | | | | | | | | | |   Age <= 48
| | | | | | | | | | | | | | |   fnlwgt <= 292816:  <=50K (5.0)
| | | | | | | | | | | | | | |   fnlwgt > 292816:  >50K (4.0/1.0)
| | | | | | | | | | | | | |   Age > 48:  >50K (3.0)
| | | | | | | | | | | |     Occupation =  Transport-moving
| | | | | | | | | | | | |    Race =  White:  <=50K (9.0/2.0)
| | | | | | | | | | | | |    Race =  Black
| | | | | | | | | | | | | |    fnlwgt <= 416415:  >50K (4.0)
| | | | | | | | | | | | | |    fnlwgt > 416415:  <=50K (2.0)
| | | | | | | | | | | | |    Race =  Asian-Pac-Islander:  <=50K (1.0)
| | | | | | | | | | | | |    Race =  Amer-Indian-Eskimo:  <=50K (1.0)
| | | | | | | | | | | | |    Race =  Other:  <=50K (0.0)
| | | | | | | | | | | |     Occupation =  Farming-fishing:  >50K (0.0)
| | | | | | | | | | | |     Occupation =  Machine-op-inspct:  <=50K (5.0/1.0)
| | | | | | | | | | | |     Occupation =  Tech-support
| | | | | | | | | | | | |   Age <= 46:  >50K (2.0)
| | | | | | | | | | | | |   Age > 46:  <=50K (5.0/2.0)
| | | | | | | | | | | |     Occupation =  ?:  >50K (0.0)
| | | | | | | | | | | |     Occupation =  Protective-serv:  <=50K (2.0)
| | | | | | | | | | | |     Occupation =  Armed-Forces:  >50K (0.0)
| | | | | | | | | | | |     Occupation =  Priv-house-serv:  >50K (0.0)
| | | | | | | | | | |    Workclass =  Local-gov:  <=50K (209.0/71.0)
| | | | | | | | | | |    Workclass =  ?:  <=50K (143.0/36.0)
| | | | | | | | | | |    Workclass =  Self-emp-inc
| | | | | | | | | | | |    Occupation =  Adm-clerical:  >50K (3.0/1.0)
| | | | | | | | | | | |    Occupation =  Exec-managerial:  >50K (69.0/28.0)
| | | | | | | | | | | |    Occupation =  Handlers-cleaners:  <=50K (1.0)
| | | | | | | | | | | |    Occupation =  Prof-specialty:  <=50K (3.0/1.0)
| | | | | | | | | | | |    Occupation =  Other-service
```

| | | | | | | | | | | | | | fnlwgt <= 167187: >50K (3.0)

| | | P | | | | | | | | | | fnlwgt > 167187: <=50K (3.0)

| | | | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband: >50K (43.0/20.0)

| | | | | | | | | | | | | | Relationship = Wife: <=50K (4.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Craft-repair

| | | | | | | | | | | | | | fnlwgt <= 116167: <=50K (10.0/1.0)

| | | | | | | | | | | | | | fnlwgt > 116167

| | | | | | | | | | | | | | | Hours-per-week <= 49

| | | | | | | | | | | | | | | | Age <= 51: <=50K (10.0/3.0)

| | | | | | | | | | | | | | | | Age > 51: >50K (3.0)

| | | | | | | | | | | | | | | Hours-per-week > 49: >50K (8.0/1.0)

| | | | | | | | | | | | | Occupation = Transport-moving: <=50K (9.0/1.0)

| | | | | | | | | | | | | Occupation = Farming-fishing: <=50K (9.0/1.0)

| | | | | | | | | | | | | Occupation = Machine-op-inspct: <=50K (1.0)

| | | | | | | | | | | | | Occupation = Tech-support: <=50K (0.0)

| | | | | | | | | | | | | Occupation = ?: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Protective-serv: <=50K (1.0)

| | | | | | | | | | | | | Occupation = Armed-Forces: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Priv-house-serv: <=50K (0.0)

| | | | | | | | | | | | Workclass = Without-pay: <=50K (3.0/1.0)

| | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | Education-num > 9

| | | | | | | | | Capital-loss <= 1510

| | | | | | | | | | Occupation = Adm-clerical

| | | | | | | | | | | Workclass = State-gov: <=50K (14.0/5.0)

| | | | | | | | | | | Workclass = Self-emp-not-inc: >50K (4.0/1.0)

| | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | P | | | | | | | | | | Relationship = Husband: <=50K (133.0/48.0)

| | | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Some-college

| | | | | | | | | | | | | | | fnlwgt <= 155509: <=50K (22.0/5.0)

| | | | | | | | | | | | | | | fnlwgt > 155509: >50K (28.0/9.0)

| | | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc: <=50K (10.0/3.0)

| | | P | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Own-child: >50K (2.0)

| | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: >50K (2.0)

| | | | | | | | | | | | | Workclass = Federal-gov: >50K (54.0/18.0)

| | | | | | | | | | | | | Workclass = Local-gov

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband: >50K (9.0/3.0)

| | | | | | | | | | | | | | Relationship = Wife: <=50K (15.0/5.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc: >50K (1.0)

| | | | | | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | | | | Occupation = Exec-managerial

| | | | | | | | | | | | Workclass = State-gov

| | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Husband

| | | | | | | | | | | | | | Age <= 45: <=50K (9.0/1.0)

| | | | | | | | | | | | | | Age > 45: >50K (11.0/3.0)

| | | | | | | | | | | | | Relationship = Wife: >50K (3.0/1.0)

| | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc: <=50K (67.0/21.0)

| | | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | Sex = Male

| | | | | | | | | | | | | | Hours-per-week <= 41

| | | | | | | | | | | | | | | Education = Bachelors: >50K (0.0)

| | | | | | | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | | | | | | Education = Masters: >50K (0.0)

| | | | | | | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | | | | | | Education = Some-college: >50K (99.0/44.0)

| | | | | | | | | | | | | | | Education = Assoc-acdm: >50K (0.0)

| | | | | | | | | | | | | | | Education = Assoc-voc: <=50K (24.0/9.0)

| | | | | | | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | | | | | | Education = Doctorate: >50K (0.0)

| | | | | | | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | P a g e | | | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | | | | | | | | Hours-per-week > 41: >50K (175.0/57.0)

| | | | | | | | | | | | | Sex = Female

| | | | | | | | | | | | | | Hours-per-week <= 49

| | | | | | | | | | | | | | | Age <= 64: >50K (29.0/3.0)

| | | | | | | | | | | | | | | Age > 64: <=50K (2.0)

| | | | | | | | | | | | | | Hours-per-week > 49

| | | | | | | | | | | | | | | fnlwgt <= 107897: >50K (4.0/1.0)

| | | | | | | | | | | | | | | fnlwgt > 107897: <=50K (6.0)

| | | | | | | | | | | | | Workclass = Federal-gov: >50K (25.0/6.0)

| | | | | | | | | | | | Workclass = Local-gov

| | | | | | | | | | | | | Capital-loss <= 653

| | | | | | | | | | | | | Race = White

| | | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | | Education = Some-college: <=50K (25.0/11.0)

| | | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc

| | | | | | | | | | | | | | | fnlwgt <= 234428

| | | | | | | | | | | | | | | | Age <= 44: <=50K (3.0/1.0)

| | | | | | | | | | | | | | | | Age > 44: >50K (4.0)

| | | | | | | | | | | | | | | fnlwgt > 234428: <=50K (2.0)

| | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

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| | | | | | | | | | | | | | | |  Education =  Preschool:  <=50K (0.0)
| | | | | | | | | | | | | | | |  Education =  12th:  <=50K (0.0)
| | | | | | | | | | | | | | |  Race =  Black:  >50K (2.0)
| | | | | | | | | | | | | | |  Race =  Asian-Pac-Islander:  <=50K (0.0)
| | | | | | | | | | | | | | |  Race =  Amer-Indian-Eskimo:  <=50K (2.0/1.0)
| | | | | | | | | | | | | | |  Race =  Other:  <=50K (0.0)
| | | | | | | | | | | | | |  Capital-loss > 653:  >50K (2.0)
| | | | | | | | | | | | |  Workclass =  ?:  >50K (0.0)
| | | | | | | | | | | | |  Workclass =  Self-emp-inc
| | | | | | | | | | | | |  fnlwgt <= 124692:  <=50K (23.0/8.0)
| | | | | | | | | | | | |  fnlwgt > 124692:  >50K (67.0/16.0)
| | | | | | | | | | | | |  Workclass =  Without-pay:  >50K (0.0)
| | | | | | | | | | | | |  Workclass =  Never-worked:  >50K (0.0)
| | | | | | | | | | |  Occupation =  Handlers-cleaners:  <=50K (91.0/18.0)
| | | | | | | | | | |  Occupation =  Prof-specialty
| | | | | | | | | | | |  Relationship =  Not-in-family:  >50K (0.0)
| | | | | | | | | | | |  Relationship =  Husband
| | | | | | | | | | | | |  Workclass =  State-gov:  >50K (14.0/5.0)
| | | | | | | | | | | | |  Workclass =  Self-emp-not-inc:  <=50K (19.0/6.0)
| | | | | | | | | | | | |  Workclass =  Private
| | | | | | | | | | | | | |  Hours-per-week <= 51:  >50K (146.0/63.0)
| | | | | | | | | | | | | |  Hours-per-week > 51:  <=50K (11.0/3.0)
| | | | | | | | | | | | |  Workclass =  Federal-gov:  >50K (12.0/3.0)
| | | | | | | | | | | | |  Workclass =  Local-gov
| | | | | | | | | | | | | |  Hours-per-week <= 42:  >50K (6.0/2.0)
| | | | | | | | | | | | | |  Hours-per-week > 42:  <=50K (2.0)
| | | | | | | | | | | | | |  Workclass =  ?:  >50K (0.0)
| | | | | | | | | | | | | |  Workclass =  Self-emp-inc:  <=50K (4.0/2.0)
| | | | | | | | | | | | | |  Workclass =  Without-pay:  >50K (0.0)
| | | | | | | | | | | | | |  Workclass =  Never-worked:  >50K (0.0)
| | | | | | | | | | | |  Relationship =  Wife
| | | | | | | | | | | | |  Capital-gain <= 3471:  >50K (36.0/9.0)
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| | | | | | | | | | | | | | Capital-gain > 3471: <=50K (2.0)

| | | | | | | | | | | | | Relationship = Own-child: >50K (0.0)

| | | | | | | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | | | | | | Relationship = Other-relative: <=50K (1.0)

| | | | | | | | | | | | Occupation = Other-service: <=50K (142.0/31.0)

| | | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | Workclass = State-gov: <=50K (2.0/1.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | fnlwgt <= 345734

| | | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Some-college: <=50K (51.0/13.0)

| | | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc

| | | | | | | | | | | | | | | Age <= 46: <=50K (5.0/1.0)

| | | | | | | | | | | | | | | Age > 46: >50K (3.0)

| | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | fnlwgt > 345734: >50K (7.0)

| | | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | fnlwgt <= 89259: <=50K (67.0/17.0)

| | | | | | | | | | | | | fnlwgt > 89259

| | | | | | | | | | | | | | Capital-gain <= 1506

| | | | | | | | | | | | | | | | | Age <= 40: <=50K (112.0/47.0)

| | | | | P a g e | | | | | | | | | | Age > 40: >50K (135.0/50.0)

| | | | | | | | | | | | | | | | Capital-gain > 1506

| | | | | | | | | | | | | | | | | Capital-gain <= 3103: >50K (3.0)

| | | | | | | | | | | | | | | | | Capital-gain > 3103: <=50K (11.0/3.0)

| | | | | | | | | | | | | Workclass = Federal-gov: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Local-gov: <=50K (1.0)

| | | | | | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc

| | | | | | | | | | | | | | Hours-per-week <= 42

| | | | | | | | | | | | | | Hours-per-week <= 39: >50K (4.0/1.0)

| | | | | | | | | | | | | | | Hours-per-week > 39: <=50K (11.0/2.0)

| | | | | | | | | | | | | | Hours-per-week > 42: >50K (42.0/12.0)

| | | | | | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | | | | Occupation = Craft-repair

| | | | | | | | | | | | | Race = White: <=50K (718.0/279.0)

| | | | | | | | | | | | | Race = Black

| | | | | | | | | | | | | | Age <= 38: <=50K (6.0/1.0)

| | | | | | | | | | | | | | Age > 38: >50K (26.0/8.0)

| | | | | | | | | | | | | Race = Asian-Pac-Islander

| | | | | | | | | | | | | | Age <= 47: <=50K (17.0/5.0)

| | | | | | | | | | | | | | Age > 47: >50K (7.0/1.0)

| | | | | | | | | | | | | Race = Amer-Indian-Eskimo

| | | | | | | | | | | | | | Age <= 37: <=50K (2.0)

| | | | | | | | | | | | | | Age > 37

| | | | | | | | | | | | | | | Age <= 44: >50K (2.0)

| | | | | | | | | | | | | | | Age > 44: <=50K (3.0/1.0)

| | | | | | | | | | | | | Race = Other: <=50K (2.0/1.0)

| | | | | | | | | | | | Occupation = Transport-moving

| | | | | | | | | | | | | Workclass = State-gov: <=50K (4.0)

| | | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | P | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Some-college: <=50K (11.0/2.0)

| | | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc: >50K (2.0)

| | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Private: <=50K (155.0/59.0)

| | | | | | | | | | | | | Workclass = Federal-gov

| | | | | | | | | | | | | Race = White: >50K (2.0)

| | | | | | | | | | | | | Race = Black: <=50K (2.0)

| | | | | | | | | | | | | Race = Asian-Pac-Islander: <=50K (0.0)

| | | | | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | | | | Workclass = Local-gov: <=50K (14.0/3.0)

| | | | | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | | | | Workclass = Self-emp-inc: >50K (7.0/1.0)

| | | | | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | | | Occupation = Farming-fishing: <=50K (143.0/29.0)

| | | | | | | | | | | Occupation = Machine-op-inspct: <=50K (193.0/63.0)

| | | | | | | | | | | Occupation = Tech-support

| | | | | | | | | | | Capital-gain <= 3103: >50K (166.0/69.0)

| | | | | | | | | | | | | Capital-gain > 3103: <=50K (12.0/2.0)

| | | | | | | | | | | Occupation = ?

| | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | Education = Some-college: <=50K (57.0/17.0)

| | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | Education = Assoc-voc

| | | | | | | | | | | | | | Hours-per-week <= 47

| | | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | | | Relationship = Husband: <=50K (7.0/1.0)

| | | | | | | | | | | | | | | Relationship = Wife: >50K (3.0/1.0)

| | | | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | | | Hours-per-week > 47: >50K (6.0)

| | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | Occupation = Protective-serv

| | | | | | | | | | | | | Age <= 58

| | | | | | | | | | | | | | Age <= 35: <=50K (37.0/10.0)

| | | | | | | | | | | | | | Age > 35

| | | | | | | | | | | | | | | fnlwgt <= 124111: <=50K (22.0/5.0)

| | | | | | | | | | | | | | | fnlwgt > 124111: >50K (85.0/24.0)

| | | | | | | | | | | | | Age > 58: <=50K (14.0/1.0)

| | | | | | | | | | | | Occupation = Armed-Forces: >50K (1.0)

| | | | | | | | | | | | Occupation = Priv-house-serv: <=50K (0.0)

| | | | | | | | | | Capital-loss > 1510: <=50K (43.0/1.0)

| | | | | Capital-gain > 5060

| | | | | | Capital-gain <= 6612: >50K (95.0)

| | | | | | Capital-gain > 6612: <=50K (5.0)

| | | Education-num > 11

| | | | Hours-per-week <= 30

| | | | | Sex = Male: <=50K (386.0/111.0)

| | | | | Sex = Female

| | | | | | Occupation = Adm-clerical

| | | | | | | fnlwgt <= 99604: <=50K (6.0/1.0)

| | | | | | | fnlwgt > 99604

| | | | | | | | fnlwgt <= 247895: >50K (9.0/1.0)

| | | | | | | | fnlwgt > 247895: <=50K (6.0/1.0)

| | | | | | Occupation = Exec-managerial: >50K (17.0/3.0)

| | | | | | Occupation = Handlers-cleaners: >50K (0.0)

| | | | | | Occupation = Prof-specialty

| | | | | | | Workclass = State-gov: >50K (6.0/1.0)

| | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | fnlwgt <= 54608: <=50K (4.0/1.0)

| | | | | | | | fnlwgt > 54608: >50K (7.0)

| | | | | | | Workclass = Private: >50K (31.0/7.0)

| | | | | | | Workclass = Federal-gov: >50K (0.0)

| | | | | | | Workclass = Local-gov

| | | | | | | | Age <= 39: >50K (6.0/1.0)

| | | | | | | | Age > 39: <=50K (8.0/1.0)

| | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | Workclass = Self-emp-inc: >50K (0.0)

| | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | Occupation = Other-service: <=50K (6.0/3.0)

| | | | | | | Occupation = Sales

| | | | | | | | Education = Bachelors

| | | | | | | | | Age <= 31: <=50K (2.0)

| | | | | | | | | Age > 31: >50K (5.0/1.0)

| | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | Education = Masters: >50K (1.0)

| | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | Education = Assoc-acdm: <=50K (3.0)

| | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | Occupation = Craft-repair: <=50K (2.0/1.0)

| | | | | | Occupation = Transport-moving: >50K (0.0)

| | | | | | Occupation = Farming-fishing: >50K (0.0)

| | | | | | Occupation = Machine-op-inspct: <=50K (1.0)

| | | | | | Occupation = Tech-support

| | | | | | | Age <= 40: <=50K (7.0/2.0)

| | | | | | | Age > 40: >50K (3.0)

| | | | | | Occupation = ?

| | | | | | | fnlwgt <= 208584

| | | | | | | | Age <= 30: <=50K (5.0)

| | | | | | | | Age > 30

| | | | | | | | | fnlwgt <= 127016: >50K (5.0)

| | | | | | | | | | fnlwgt > 127016: <=50K (9.0/2.0)

| | | | | | | | fnlwgt > 208584: >50K (9.0/3.0)

| | | | | | | Occupation = Protective-serv: >50K (0.0)

| | | | | | Occupation = Armed-Forces: >50K (0.0)

| | | | | | Occupation = Priv-house-serv: >50K (1.0)

| | | | Hours-per-week > 30

| | | | | Age <= 33

| | | | | | Age <= 25: <=50K (121.0/28.0)

| | | | | | Age > 25

| | | | | | | Native-country = United-States

| | | | | | | | Education-num <= 12: <=50K (115.0/36.0)

| | | | | | | | Education-num > 12

| | | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | | Relationship = Husband

| | | | | | | | | | Occupation = Adm-clerical

| | | | | | | | | | | Age <= 31

| | | | | | | | | | | | Age <= 29: <=50K (8.0/1.0)

| | | | | | | | | | | | Age > 29: >50K (9.0/2.0)

| | | | | | | | | | | | Age > 31: <=50K (8.0/3.0)

| | | | | | | | | | | Occupation = Exec-managerial

| | | | | | | | | | | Education = Bachelors

| | | | | | | | | | | | Race = White

| | | | | | | | | | | | | Age <= 29: <=50K (49.0/22.0)

| | | | | | | | | | | | | Age > 29: >50K (79.0/21.0)

| | | | | | | | | | | | Race = Black: >50K (6.0)

| | | | | | | | | | | | Race = Asian-Pac-Islander: >50K (0.0)

| | | | | | | | | | | | Race = Amer-Indian-Eskimo: >50K (0.0)

| | | | | | | | | | | | Race = Other: >50K (0.0)

| | | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | | Education = Masters: >50K (17.0/2.0)

| | | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | | | Education = Some-college: >50K (0.0)

| | | P | | | | | | | | Education = Assoc-acdm: >50K (0.0)

| | | | | | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | | | Education = Doctorate: <=50K (1.0)

| | | | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | | | Occupation = Handlers-cleaners

| | | | | | | | | | | | Hours-per-week <= 45: <=50K (3.0)

| | | | | | | | | | | | Hours-per-week > 45: >50K (2.0)

| | | | | | | | | | | Occupation = Prof-specialty

| | | | | | | | | | | | Workclass = State-gov: >50K (16.0/7.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | Hours-per-week <= 52: >50K (7.0)

| | | | | | | | | | | | | Hours-per-week > 52

| | | | | | | | | | | | | | fnlwgt <= 151693: >50K (2.0)

| | | | | | | | | | | | | | fnlwgt > 151693: <=50K (2.0)

| | | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | Age <= 28

| | | | | | | | | | | | | Education = Bachelors

| | | | | | | | | | | | | | Hours-per-week <= 56: <=50K (19.0/6.0)

| | | | | | | | | | | | | | Hours-per-week > 56: >50K (2.0)

| | | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters

| | | | | | | | | | | | | | | Hours-per-week <= 46: >50K (4.0/1.0)

| | | | | | | | | | | | | | | Hours-per-week > 46: <=50K (3.0)

| | | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | P | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | | Education = Doctorate: <=50K (2.0/1.0)

| | | | | | | | | | | | | | | Education = Prof-school

| | | | | | | | | | | | | | | | Hours-per-week <= 55: >50K (2.0)

| | | | | | | | | | | | | | | | Hours-per-week > 55: <=50K (2.0)

| | | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | | Age > 28: >50K (116.0/38.0)

| | | | | | | | | | | | | Workclass = Federal-gov: >50K (11.0/4.0)

| | | | | | | | | | | | | Workclass = Local-gov: <=50K (35.0/13.0)

| | | | | | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc: >50K (5.0/1.0)

| | | | | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | | | | Occupation = Other-service

| | | | | | | | | | | | fnlwgt <= 120676: >50K (2.0)

| | | | | | | | | | | | fnlwgt > 120676: <=50K (7.0/1.0)

| | | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | Workclass = State-gov: >50K (0.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | fnlwgt <= 134004: <=50K (3.0)

| | | | | | | | | | | | | fnlwgt > 134004

| | | | | | | | | | | | | | fnlwgt <= 326400: >50K (2.0)

| | | | | | | | | | | | | | fnlwgt > 326400: <=50K (2.0)

| | | | | | | | | | | | Workclass = Private: >50K (88.0/33.0)

| | | | | | | | | | | | Workclass = Federal-gov: >50K (0.0)

```
| | | | | | | | | | | |    Workclass =  Local-gov:  <=50K (1.0)
| | | P | | | | | | | |    Workclass =  ?:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  Self-emp-inc
| | | | | | | | | | | | |    Age <= 30:  >50K (4.0)
| | | | | | | | | | | | |    Age > 30:  <=50K (6.0/2.0)
| | | | | | | | | | | |    Workclass =  Without-pay:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  Never-worked:  >50K (0.0)
| | | | | | | | | | |   Occupation =  Craft-repair
| | | | | | | | | | | |    Hours-per-week <= 42:  <=50K (20.0/6.0)
| | | | | | | | | | | |    Hours-per-week > 42:  >50K (16.0/7.0)
| | | | | | | | | | |   Occupation =  Transport-moving:  <=50K (2.0/1.0)
| | | | | | | | | | |   Occupation =  Farming-fishing:  <=50K (8.0/1.0)
| | | | | | | | | | |   Occupation =  Machine-op-inspct:  <=50K (5.0/1.0)
| | | | | | | | | |   Occupation =  Tech-support
| | | | | | | | | | | |    Workclass =  State-gov:  >50K (2.0)
| | | | | | | | | | | |    Workclass =  Self-emp-not-inc:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  Private
| | | | | | | | | | | | |    Race =  White
| | | | | | | | | | | | | |     fnlwgt <= 142049:  >50K (5.0/1.0)
| | | | | | | | | | | | | | |     fnlwgt > 142049:  <=50K (11.0/3.0)
| | | | | | | | | | | | | |    Race =  Black:  <=50K (0.0)
| | | | | | | | | | | | | |    Race =  Asian-Pac-Islander:  >50K (2.0)
| | | | | | | | | | | | | |    Race =  Amer-Indian-Eskimo:  <=50K (0.0)
| | | | | | | | | | | | | |    Race =  Other:  <=50K (0.0)
| | | | | | | | | | | |    Workclass =  Federal-gov:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  Local-gov:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  ?:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  Self-emp-inc:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  Without-pay:  >50K (0.0)
| | | | | | | | | | | |    Workclass =  Never-worked:  >50K (0.0)
| | | | | | | | | | |   Occupation =  ?:  >50K (2.0)
| | | | | | | | | | |   Occupation =  Protective-serv
```

```
| | | | | | | | | | | | |   Hours-per-week <= 69
| | | | | | | | | | | | |   Race =  White
| | | | | | | | | | | | | |   fnlwgt <= 225339:  <=50K (10.0/2.0)
| | | | | | | | | | | | | |   fnlwgt > 225339:  >50K (4.0)
| | | | | | | | | | | | |   Race =  Black:  <=50K (4.0/2.0)
| | | | | | | | | | | | |   Race =  Asian-Pac-Islander:  <=50K (0.0)
| | | | | | | | | | | | |   Race =  Amer-Indian-Eskimo:  <=50K (0.0)
| | | | | | | | | | | | |   Race =  Other:  <=50K (0.0)
| | | | | | | | | | | |   Hours-per-week > 69:  >50K (4.0)
| | | | | | | | | | | |   Occupation =  Armed-Forces:  >50K (0.0)
| | | | | | | | | | | |   Occupation =  Priv-house-serv:  >50K (0.0)
| | | | | | | | | | |   Relationship =  Wife:  >50K (107.0/29.0)
| | | | | | | | | |   Relationship =  Own-child:  <=50K (2.0)
| | | | | | | | | |   Relationship =  Unmarried:  >50K (0.0)
| | | | | | | | | |   Relationship =  Other-relative:  <=50K (6.0/1.0)
| | | | | | | |   Native-country =  Cuba:  >50K (3.0/1.0)
| | | | | | | |   Native-country =  Jamaica:  <=50K (1.0)
| | | | | | | |   Native-country =  India
| | | | | | | |   Workclass =  State-gov:  >50K (2.0)
| | | | | | | |   Workclass =  Self-emp-not-inc:  <=50K (0.0)
| | | | | | | |   Workclass =  Private:  <=50K (10.0/2.0)
| | | | | | | |   Workclass =  Federal-gov:  <=50K (0.0)
| | | | | | | |   Workclass =  Local-gov:  <=50K (0.0)
| | | | | | | |   Workclass =  ?:  <=50K (0.0)
| | | | | | | |   Workclass =  Self-emp-inc:  <=50K (0.0)
| | | | | | | |   Workclass =  Without-pay:  <=50K (0.0)
| | | | | | | |   Workclass =  Never-worked:  <=50K (0.0)
| | | | | | | |   Native-country =  ?:  <=50K (21.0/7.0)
| | | | | | | |   Native-country =  Mexico:  <=50K (9.0/1.0)
| | | | | | | |   Native-country =  South:  <=50K (1.0)
| | | | | | | |   Native-country =  Puerto-Rico:  <=50K (1.0)
| | | | | | | |   Native-country =  Honduras:  >50K (1.0)
```

| | | | | | | | Native-country = England

| | | | | | | | | Age <= 32: >50K (3.0)

| | | | | | | | | Age > 32: <=50K (3.0)

| | | | | | | | Native-country = Canada: <=50K (4.0/1.0)

| | | | | | | | Native-country = Germany: <=50K (4.0/1.0)

| | | | | | | | Native-country = Iran: >50K (3.0/1.0)

| | | | | | | | Native-country = Philippines: <=50K (6.0/3.0)

| | | | | | | | Native-country = Italy: <=50K (2.0)

| | | | | | | | Native-country = Poland: >50K (0.0)

| | | | | | | | Native-country = Columbia: <=50K (3.0/1.0)

| | | | | | | | Native-country = Cambodia: <=50K (1.0)

| | | | | | | | Native-country = Thailand: >50K (2.0)

| | | | | | | | Native-country = Ecuador: <=50K (2.0)

| | | | | | | | Native-country = Laos: >50K (0.0)

| | | | | | | | Native-country = Taiwan: <=50K (3.0/1.0)

| | | | | | | | Native-country = Haiti: <=50K (2.0)

| | | | | | | | Native-country = Portugal: <=50K (1.0)

| | | | | | | | Native-country = Dominican-Republic: <=50K (2.0/1.0)

| | | | | | | | Native-country = El-Salvador: <=50K (3.0)

| | | | | | | | Native-country = France: >50K (3.0)

| | | | | | | | Native-country = Guatemala: >50K (0.0)

| | | | | | | | Native-country = China

| | | | | | | | | fnlwgt <= 315203: <=50K (2.0)

| | | | | | | | | fnlwgt > 315203: >50K (2.0)

| | | | | | | | Native-country = Japan

| | | | | | | | | fnlwgt <= 104879: >50K (2.0)

| | | | | | | | | fnlwgt > 104879: <=50K (5.0)

| | | | | | | | Native-country = Yugoslavia: <=50K (2.0/1.0)

| | | | | | | | Native-country = Peru: >50K (0.0)

| | | | | | | | Native-country = Outlying-US(Guam-USVI-etc): >50K (0.0)

| | | | | | | | Native-country = Scotland: >50K (0.0)

| | | | | | | | Native-country = Trinadad&Tobago: >50K (0.0)

| | | | | | | | Native-country = Greece: >50K (1.0)

| | | | | | | | Native-country = Nicaragua: <=50K (2.0)

| | | | | | | | Native-country = Vietnam: >50K (1.0)

| | | | | | | | Native-country = Hong

| | | | | | | | | fnlwgt <= 141962: <=50K (2.0)

| | | | | | | | | fnlwgt > 141962: >50K (4.0)

| | | | | | | | Native-country = Ireland: >50K (0.0)

| | | | | | | | Native-country = Hungary: >50K (0.0)

| | | | | | | | Native-country = Holand-Netherlands: >50K (0.0)

| | | | | | Age > 33

| | | | | | Occupation = Adm-clerical

| | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | Relationship = Husband

| | | | | | | | Age <= 58

| | | | | | | | | Age <= 41: <=50K (66.0/30.0)

| | | | | | | | | Age > 41

| | | | | | | | | | | Capital-gain <= 3942: >50K (101.0/31.0)

| | | | | | | | | | | Capital-gain > 3942

| | | | | | | | | | | | Capital-gain <= 5060: <=50K (3.0)

| | | | | | | | | | | | | Capital-gain > 5060: >50K (2.0)

| | | | | | | | | Age > 58: <=50K (16.0/7.0)

| | | | | | | Relationship = Wife

| | | | | | | | Age <= 57: >50K (41.0/12.0)

| | | | | | | | Age > 57: <=50K (3.0)

| | | | | | | Relationship = Own-child: <=50K (1.0)

| | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | Relationship = Other-relative: >50K (3.0/1.0)

| | | | | | Occupation = Exec-managerial

| | | | | | | Workclass = State-gov

| | | | | | | | Hours-per-week <= 46

| | | | | | | | | Age <= 41: <=50K (12.0/3.0)

| | | | | | | | | Age > 41

| | | | | | | | | | | Age <= 53: >50K (23.0/2.0)

| | | | | | | | | | | Age > 53

| | | | | | | | | | | | Education = Bachelors: <=50K (10.0/3.0)

| | | | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | | | Education = Masters: >50K (5.0)

| | | | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | | | Education = Some-college: >50K (0.0)

| | | | | | | | | | | | Education = Assoc-acdm: >50K (0.0)

| | | | | | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | | | Education = Doctorate: >50K (0.0)

| | | | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | Hours-per-week > 46: >50K (18.0)

| | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | Age <= 61

| | | | | | | | | | Education = Bachelors: <=50K (65.0/32.0)

| | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | Education = Masters

| | | | | | | | | | | Age <= 54: >50K (13.0/2.0)

| | | | | | | | | | | Age > 54: <=50K (2.0)

| | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | Education = Some-college: >50K (0.0)

| | | | | | | | | | Education = Assoc-acdm

| | | | | | | | | | | fnlwgt <= 100776: >50K (2.0)

| | | | | | | | | | | fnlwgt > 100776: <=50K (7.0)

| | | | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | Education = Doctorate: >50K (0.0)

| | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | Age > 61: <=50K (7.0)

| | | | | | | | Workclass = Private: >50K (729.0/144.0)

| | | | | | | | Workclass = Federal-gov: >50K (63.0/17.0)

| | | | | | | | Workclass = Local-gov: >50K (87.0/19.0)

| | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | Workclass = Self-emp-inc

| | | | | | | | | Age <= 49

| | | | | | | | | | Hours-per-week <= 65: >50K (71.0/11.0)

| | | | | | | | | | Hours-per-week > 65

| | | | | | | | | | | Age <= 41: >50K (4.0/1.0)

| | | | | | | | | | | Age > 41: <=50K (4.0)

| | | | | | | | | Age > 49

| | | | | | | | | | fnlwgt <= 135315: >50K (13.0)

| | | | | | | | | | fnlwgt > 135315

| | | | | | | | | | | fnlwgt <= 282643: <=50K (17.0/5.0)

| | | | | | | | | | | fnlwgt > 282643

| | | | | | | | | | | | fnlwgt <= 373263: >50K (5.0)

| | | | | | | | | | | | fnlwgt > 373263: <=50K (3.0/1.0)

| | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | Occupation = Handlers-cleaners: <=50K (31.0/10.0)

| | | | | | | Occupation = Prof-specialty: >50K (1421.0/360.0)

| | | | | | | Occupation = Other-service: <=50K (56.0/10.0)

| | | | | | | Occupation = Sales

| | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | Relationship = Husband: >50K (511.0/171.0)

| | | | | | | | Relationship = Wife: <=50K (18.0/7.0)

| | | | | | | | Relationship = Own-child: >50K (2.0)

| | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | Relationship = Other-relative: <=50K (1.0)

| | | | | | | Occupation = Craft-repair

| | | | | | | | Education = Bachelors

| | | | | | | | | Workclass = State-gov: >50K (3.0/1.0)

| | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | Hours-per-week <= 52: <=50K (22.0/10.0)

| | | | | | | | | | Hours-per-week > 52: >50K (2.0)

| | | | | | | | | Workclass = Private: >50K (89.0/37.0)

| | | | | | | | | Workclass = Federal-gov: >50K (3.0/1.0)

| | | | | | | | | Workclass = Local-gov

| | | | | | | | | | Age <= 44: <=50K (8.0/1.0)

| | | | | | | | | | Age > 44: >50K (3.0)

| | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | Workclass = Self-emp-inc: <=50K (10.0/3.0)

| | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | Education = Masters: >50K (19.0/8.0)

| | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | Education = Some-college: >50K (0.0)

| | | | | | | | Education = Assoc-acdm

| | | | | | | | | Capital-loss <= 653

| | | | | | | | | | Age <= 37: <=50K (15.0/3.0)

| | | | | | | | | | Age > 37

| | | | | | | | | | | fnlwgt <= 153052

| | | | | | | | | | | | | Hours-per-week <= 47: <=50K (11.0/2.0)

| | | | | | | | | | | | | Hours-per-week > 47: >50K (4.0/1.0)

| | | | | | | | | | | | fnlwgt > 153052: >50K (26.0/5.0)

| | | | | | | | | Capital-loss > 653: <=50K (3.0)

| | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | Education = Doctorate: <=50K (1.0)

| | | | | | | | Education = Prof-school: <=50K (5.0/2.0)

| | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | Occupation = Transport-moving

| | | | | | | | Native-country = United-States

| | | | | | | | | Education = Bachelors

| | | | | | | | | | Age <= 44

| | | | | | | | | | | Hours-per-week <= 46: <=50K (11.0/2.0)

| | | | | | | | | | | Hours-per-week > 46

| | | | | | | | | | | | Hours-per-week <= 53: >50K (2.0)

| | | | | | | | | | | | Hours-per-week > 53: <=50K (4.0/1.0)

| | | | | | | | | | Age > 44

| | | | | | | | | | | Age <= 52: >50K (8.0/1.0)

| | | | | | | | | | | Age > 52: <=50K (4.0)

| | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | Education = Masters: >50K (1.0)

| | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | | Education = Assoc-acdm

| | | | | | | | | | Age <= 49: <=50K (10.0/1.0)

| | | | | | | | | | Age > 49: >50K (3.0)

| | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | P | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | Education = Doctorate: <=50K (1.0)

| | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Native-country = Cuba: <=50K (1.0)

| | | | | | | | Native-country = Jamaica: <=50K (0.0)

| | | | | | | | Native-country = India: <=50K (0.0)

| | | | | | | | Native-country = ?

| | | | | | | | | Workclass = State-gov: <=50K (0.0)

| | | | | | | | | Workclass = Self-emp-not-inc: <=50K (2.0)

| | | | | | | | | Workclass = Private: >50K (3.0/1.0)

| | | | | | | | | Workclass = Federal-gov: <=50K (0.0)

| | | | | | | | | Workclass = Local-gov: <=50K (0.0)

| | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | Workclass = Self-emp-inc: <=50K (0.0)

| | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | Native-country = Mexico: <=50K (0.0)

| | | | | | | | Native-country = South: <=50K (0.0)

| | | | | | | | Native-country = Puerto-Rico: <=50K (0.0)

| | | | | | | | Native-country = Honduras: <=50K (0.0)

| | | | | | | | Native-country = England: <=50K (0.0)

| | | | | | | | Native-country = Canada: >50K (1.0)

| | | | | | | | Native-country = Germany: <=50K (0.0)

| | | | | | | | Native-country = Iran: <=50K (1.0)

| | | | | | | | Native-country = Philippines: <=50K (0.0)

| | | | | | | | Native-country = Italy: <=50K (0.0)

| | | | | | | | Native-country = Poland: <=50K (1.0)

| | | | | | | | Native-country = Columbia: <=50K (0.0)

| | | | | | | | Native-country = Cambodia: <=50K (0.0)

| | | | | | | | Native-country = Thailand: <=50K (1.0)

| | | | | | | | Native-country = Ecuador: <=50K (0.0)

| | | | | | | | Native-country = Laos: <=50K (0.0)

| | | | | | | | Native-country = Taiwan: <=50K (0.0)

| | | | | | | | Native-country = Haiti: <=50K (0.0)

| | | | | | | | Native-country = Portugal: <=50K (0.0)

| | | | | | | | Native-country = Dominican-Republic: <=50K (0.0)

| | | | | | | | Native-country = El-Salvador: <=50K (0.0)

| | | | | | | | Native-country = France: <=50K (0.0)

| | | | | | | | Native-country = Guatemala: <=50K (0.0)

| | | | | | | | Native-country = China: <=50K (0.0)

| | | | | | | | Native-country = Japan: <=50K (0.0)

| | | | | | | | Native-country = Yugoslavia: <=50K (0.0)

| | | | | | | | Native-country = Peru: <=50K (0.0)

| | | | | | | | Native-country = Outlying-US(Guam-USVI-etc): <=50K (0.0)

| | | | | | | | Native-country = Scotland: <=50K (0.0)

| | | | | | | | Native-country = Trinadad&Tobago: <=50K (0.0)

| | | | | | | | Native-country = Greece: <=50K (0.0)

| | | | | | | | Native-country = Nicaragua: <=50K (0.0)

| | | | | | | | Native-country = Vietnam: <=50K (0.0)

| | | | | | | | Native-country = Hong: <=50K (0.0)

| | | | | | | | Native-country = Ireland: <=50K (0.0)

| | | | | | | | Native-country = Hungary: <=50K (0.0)

| | | | | | | | Native-country = Holand-Netherlands: <=50K (0.0)

| | | | | | | Occupation = Farming-fishing

| | | | | | | | Workclass = State-gov: >50K (1.0)

| | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | Education = Bachelors

| | | | | | | | | | fnlwgt <= 32552: >50K (3.0)

| | | | | | | | | | fnlwgt > 32552: <=50K (25.0/4.0)

| | | | P | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | Education = Masters: <=50K (8.0/1.0)

| | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | | Education = Assoc-acdm: <=50K (4.0/1.0)

| | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | Education = Prof-school: >50K (1.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Workclass = Private: <=50K (20.0/6.0)

| | | | | | | | Workclass = Federal-gov: <=50K (2.0/1.0)

| | | | | | | | Workclass = Local-gov: <=50K (0.0)

| | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | Workclass = Self-emp-inc: >50K (6.0)

| | | | | | | | Workclass = Without-pay: <=50K (1.0)

| | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | Occupation = Machine-op-inspct

| | | | | | | | Race = White

| | | | | | | | | Education = Bachelors

| | | | | | | | | | Hours-per-week <= 41

| | | | | | | | | | | fnlwgt <= 175958: <=50K (13.0/3.0)

| | | | | | | | | | | fnlwgt > 175958: >50K (9.0/2.0)

| | | | | | | | | | Hours-per-week > 41: >50K (4.0)

| | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | Education = Masters: <=50K (4.0/2.0)

| | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | | Education = Assoc-acdm

| | | | | | | | | | | Age <= 49: <=50K (9.0/2.0)

| | | | | | | | | | | Age > 49: >50K (4.0)

| | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | Education = Prof-school: <=50K (1.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Race = Black: <=50K (3.0)

| | | | | | | | Race = Asian-Pac-Islander: <=50K (3.0)

| | | | | | | | Race = Amer-Indian-Eskimo: <=50K (1.0)

| | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | Occupation = Tech-support: >50K (126.0/37.0)

| | | | | | | Occupation = ?

| | | | | | | | fnlwgt <= 369909

| | | | | | | | | Hours-per-week <= 44: <=50K (43.0/15.0)

| | | | | | | | | Hours-per-week > 44: >50K (24.0/10.0)

| | | | | | | | fnlwgt > 369909: >50K (6.0)

| | | | | | | Occupation = Protective-serv

| | | | | | | | Age <= 42

| | | | | | | | | Capital-gain <= 1506

| | | | | | | | | | Race = White: <=50K (25.0/8.0)

| | | | | | | | | | Race = Black

| | | | | | | | | | | Age <= 39: <=50K (2.0)

| | | | | | | | | | | Age > 39: >50K (2.0)

| | | | | | | | | | Race = Asian-Pac-Islander: >50K (1.0)

| | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | Capital-gain > 1506: >50K (2.0)

| | | | | | | | Age > 42: >50K (43.0/7.0)

| | | | | | | Occupation = Armed-Forces: >50K (1.0)

| | | | | | | Occupation = Priv-house-serv: <=50K (2.0)

| | Capital-loss > 1844

| | | Capital-loss <= 1980: >50K (857.0/18.0)

| | | Capital-loss > 1980

| | | | Capital-loss <= 2163: <=50K (104.0)

| | | | Capital-loss > 2163

| | | | | Capital-loss <= 2415

| | | | | | Capital-loss <= 2377

| | | | | | | Age <= 64: <=50K (38.0/4.0)

| | | | | | | Age > 64: >50K (30.0/3.0)

| | | | | | Capital-loss > 2377: >50K (82.0)

| | | | | Capital-loss > 2415: <=50K (14.0)

| Marital-status = Divorced

| | Capital-gain <= 4687: <=50K (6387.0/480.0)

| | Capital-gain > 4687

| | | Capital-gain <= 4787: >50K (14.0)

| | | Capital-gain > 4787: <=50K (53.0/4.0)

| Marital-status = Married-spouse-absent: <=50K (613.0/44.0)

| Marital-status = Separated

| | Education-num <= 12: <=50K (1318.0/36.0)

| | Education-num > 12

| | | Sex = Male

| | | | Education = Bachelors: <=50K (60.0/12.0)

| | | | Education = HS-grad: <=50K (0.0)

| | | | Education = 11th: <=50K (0.0)

| | | | Education = Masters

| | | | | | Age <= 45: >50K (5.0)

| | | | | | Age > 45: <=50K (10.0/3.0)

| | | | Education = 9th: <=50K (0.0)

| | | | Education = Some-college: <=50K (0.0)

| | | | Education = Assoc-acdm: <=50K (0.0)

| | | | Education = Assoc-voc: <=50K (0.0)

| | | | Education = 7th-8th: <=50K (0.0)

| | | | Education = Doctorate

| | | | | fnlwgt <= 188307: <=50K (3.0)

| | | | | fnlwgt > 188307: >50K (2.0)

| | | | Education = Prof-school: >50K (6.0/1.0)

| | | | Education = 5th-6th: <=50K (0.0)

| | | | Education = 10th: <=50K (0.0)

| | | | Education = 1st-4th: <=50K (0.0)

| | | | Education = Preschool: <=50K (0.0)

| | | | Education = 12th: <=50K (0.0)

| | | Sex = Female: <=50K (101.0/13.0)

| Marital-status = Married-AF-spouse: <=50K (35.0/12.0)

| Marital-status = Widowed

| | Capital-loss <= 2205: <=50K (1460.0/82.0)

| | Capital-loss > 2205

| | | Workclass = State-gov: >50K (0.0)

| | | Workclass = Self-emp-not-inc: >50K (0.0)

| | | Workclass = Private

| | | | Education-num <= 9

| | | | | fnlwgt <= 169460: <=50K (4.0)

| | | | | fnlwgt > 169460: >50K (3.0)

| | | | Education-num > 9: >50K (9.0)

| | | Workclass = Federal-gov: >50K (0.0)

| | | Workclass = Local-gov: <=50K (3.0/1.0)

| | | Workclass = ?: <=50K (5.0)

| | | Workclass = Self-emp-inc: >50K (1.0)

| | | Workclass = Without-pay: >50K (0.0)

| | | Workclass = Never-worked: >50K (0.0)

 Capital-gain > 6849: >50K (2055.0/28.0)

Number of Leaves :   915

Size of the tree :   1159

Time taken to build model: 1.54 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances   41987   85.9649 %

Incorrectly Classified Instances   6855   14.0351 %

Kappa statistic   0.5851

Mean absolute error   0.1939

Root mean squared error   0.3214

Relative absolute error   53.2542 %

Root relative squared error   75.3278 %

Total Number of Instances   48842

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.940	0.396	0.883	0.940	0.911	0.591	0.887	0.946	<=50K
	0.604	0.060	0.760	0.604	0.673	0.591	0.887	0.744	>50K
Weighted Avg.	0.860	0.316	0.854	0.860	0.854	0.591	0.887	0.897	

=== Confusion Matrix ===

```
   a     b   <-- classified as
34933  2222 |    a =  <=50K
 4633  7054 |    b =  >50K
```

Percentage-split (66%) on fully-pruned tree:

=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 0.25 -M 2

Relation: adult_dataset - Copy

Instances: 48842

Attributes: 15

       Age

       Workclass

       fnlwgt

       Education

       Education-num

       Marital-status

       Occupation

       Relationship

       Race

       Sex

       Capital-gain

       Capital-loss

       Hours-per-week

       Native-country

       Predicted_Income

Test mode: split 66.0% train, remainder test

=== Classifier model (full training set) ===

J48 pruned tree

 Capital-gain <= 6849

| Marital-status = Never-married

| | Education-num <= 12

| | | Capital-loss <= 2206: <=50K (12461.0/146.0)

| | | Capital-loss > 2206

| | | | Capital-loss <= 2377: <=50K (17.0/3.0)

| | | | Capital-loss > 2377: >50K (11.0/1.0)

| | Education-num > 12

| | | Education-num <= 14

| | | | Capital-loss <= 1485: <=50K (3075.0/259.0)

| | | | Capital-loss > 1485

| | | | | Capital-loss <= 1573: >50K (21.0/4.0)

| | | | | Capital-loss > 1573: <=50K (109.0/14.0)

| | | Education-num > 14

| | | | Age <= 32: <=50K (82.0/9.0)

| | | | Age > 32

| | | | | Capital-loss <= 1485

| | | | | | Occupation = Adm-clerical: >50K (1.0)

| | | | | | Occupation = Exec-managerial

| | | | | | | Age <= 36: <=50K (2.0)

| | | | | | | Age > 36: >50K (13.0/2.0)

| | | | | | Occupation = Handlers-cleaners: <=50K (0.0)

| | | | | | Occupation = Prof-specialty

| | | | | | | Race = White

| | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | Education = Doctorate

| | | | | | | | Capital-gain <= 2387

| | | | | | | | | | | | fnlwgt <= 265932: <=50K (31.0/8.0)

| | | | | | | | | | | | fnlwgt > 265932: >50K (11.0/3.0)

| | | | | | | | | | | Capital-gain > 2387: >50K (2.0)

| | | | | | | | | Education = Prof-school

| | | | | | | | | | Workclass = State-gov: <=50K (3.0/1.0)

| | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | Age <= 56

| | | | | | | | | | | | Hours-per-week <= 39: <=50K (3.0/1.0)

| | | | | | | | | | | | Hours-per-week > 39: >50K (6.0)

| | | | | | | | | | | Age > 56: <=50K (4.0)

| | | | | | | | | | Workclass = Private

| | | | | | | | | | | fnlwgt <= 162165: >50K (5.0)

| | | | | | | | | | | fnlwgt > 162165: <=50K (10.0/2.0)

| | | | | | | | | | Workclass = Federal-gov: >50K (2.0)

| | | | | | | | | | Workclass = Local-gov

| | | | | | | | | | | fnlwgt <= 205528: >50K (2.0)

| | | | | | | | | | | fnlwgt > 205528: <=50K (2.0)

| | | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | Workclass = Self-emp-inc: >50K (1.0)

| | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Race = Black: <=50K (4.0)

| | | | | | | | Race = Asian-Pac-Islander: >50K (3.0/1.0)

| | | | | | | | Race = Amer-Indian-Eskimo: >50K (1.0)

| | | | | | | | Race = Other: >50K (1.0)

| | | | | | | Occupation = Other-service: <=50K (2.0/1.0)

| | | | | | | Occupation = Sales: <=50K (1.0)

| | | | | | | Occupation = Craft-repair: >50K (1.0)

| | | | | | | Occupation = Transport-moving: <=50K (0.0)

| | | | | | | Occupation = Farming-fishing: <=50K (2.0)

| | | | | | | Occupation = Machine-op-inspct: >50K (1.0)

| | | | | | | Occupation = Tech-support: <=50K (0.0)

| | | | | | | Occupation = ?: <=50K (2.0/1.0)

| | | | | | | Occupation = Protective-serv: <=50K (0.0)

| | | | | | | Occupation = Armed-Forces: <=50K (0.0)

| | | | | | | Occupation = Priv-house-serv: <=50K (0.0)

| | | | | | Capital-loss > 1485: >50K (16.0/2.0)

| Marital-status = Married-civ-spouse

| | Capital-loss <= 1844

| | | Education-num <= 11

| | | | Education-num <= 8

| | | | | Capital-gain <= 4101: <=50K (2447.0/236.0)

| | | | | Capital-gain > 4101

| | | | | | Capital-gain <= 5060

| | | | | | | Capital-gain <= 4416

| | | | | | | | Native-country = United-States: >50K (7.0/1.0)

| | | | | | | | Native-country = Cuba: >50K (0.0)

| | | | | | | | Native-country = Jamaica: >50K (0.0)

| | | | | | | | Native-country = India: >50K (0.0)

| | | | | | | | Native-country = ?: >50K (0.0)

| | | | | | | | Native-country = Mexico: <=50K (2.0)

| | | | | | | | Native-country = South: >50K (0.0)

| | | | | | | | Native-country = Puerto-Rico: >50K (0.0)

| | | | | | | | Native-country = Honduras: >50K (0.0)

| | | | | | | | Native-country = England: >50K (0.0)

| | | | | | | | Native-country = Canada: >50K (0.0)

| | | | | | | | Native-country = Germany: >50K (0.0)

| | | | | | | | Native-country = Iran: >50K (0.0)

| | | | | | | | Native-country = Philippines: >50K (0.0)

| | | | | | | | | Native-country = Italy: >50K (0.0)

| | | | | | | | | Native-country = Poland: >50K (0.0)

| | | | | | | | | Native-country = Columbia: >50K (0.0)

| | | | | | | | | Native-country = Cambodia: >50K (0.0)

| | | | | | | | | Native-country = Thailand: >50K (0.0)

| | | | | | | | | Native-country = Ecuador: >50K (0.0)

| | | | | | | | | Native-country = Laos: >50K (0.0)

| | | | | | | | | Native-country = Taiwan: >50K (0.0)

| | | | | | | | | Native-country = Haiti: >50K (0.0)

| | | | | | | | | Native-country = Portugal: >50K (0.0)

| | | | | | | | | Native-country = Dominican-Republic: >50K (0.0)

| | | | | | | | | Native-country = El-Salvador: >50K (0.0)

| | | | | | | | | Native-country = France: >50K (0.0)

| | | | | | | | | Native-country = Guatemala: >50K (0.0)

| | | | | | | | | Native-country = China: >50K (0.0)

| | | | | | | | | Native-country = Japan: >50K (0.0)

| | | | | | | | | Native-country = Yugoslavia: >50K (0.0)

| | | | | | | | | Native-country = Peru: >50K (0.0)

| | | | | | | | | Native-country = Outlying-US(Guam-USVI-etc): >50K (0.0)

| | | | | | | | | Native-country = Scotland: >50K (0.0)

| | | | | | | | | Native-country = Trinadad&Tobago: >50K (0.0)

| | | | | | | | | Native-country = Greece: >50K (1.0)

| | | | | | | | | Native-country = Nicaragua: >50K (0.0)

| | | | | | | | | Native-country = Vietnam: >50K (0.0)

| | | | | | | | | Native-country = Hong: >50K (0.0)

| | | | | | | | | Native-country = Ireland: >50K (0.0)

| | | | | | | | | Native-country = Hungary: >50K (0.0)

| | | | | | | | | Native-country = Holand-Netherlands: >50K (0.0)

| | | | | | | | Capital-gain > 4416: <=50K (15.0)

| | | | | | | Capital-gain > 5060: >50K (16.0)

| | | | | Education-num > 8

| | | | | | Capital-gain <= 5060

| | | | | | | Age <= 29: <=50K (1660.0/225.0)

| | | | | | | Age > 29

| | | | | | | | Hours-per-week <= 34: <=50K (946.0/141.0)

| | | | | | | | Hours-per-week > 34

| | | | | | | | | Education-num <= 9

| | | | | | | | | | Age <= 35: <=50K (1182.0/261.0)

| | | | | | | | | | Age > 35

| | | | | | | | | | | Workclass = State-gov

| | | | | | | | | | | | Hours-per-week <= 53

| | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Husband: <=50K (108.0/26.0)

| | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | fnlwgt <= 189013: <=50K (10.0/3.0)

| | | | | | | | | | | | | | fnlwgt > 189013: >50K (6.0/1.0)

| | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Other-relative: <=50K (2.0)

| | | | | | | | | | | | Hours-per-week > 53: >50K (7.0/1.0)

| | | | | | | | | | | Workclass = Self-emp-not-inc: <=50K (515.0/115.0)

| | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | Capital-loss <= 1510

| | | | | | | | | | | | | Occupation = Adm-clerical

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband

| | | | | | | | | | | | | | | Hours-per-week <= 51: <=50K (105.0/35.0)

| | | | | | | | | | | | | | | Hours-per-week > 51: >50K (7.0/1.0)

| | | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | | Hours-per-week <= 52

| | | | | | | | | | | | | | | | Age <= 40: >50K (18.0/4.0)

| | | | | | | | | | | | | | | | Age > 40: <=50K (53.0/22.0)

| | | | | | | | | | | | | | | Hours-per-week > 52: <=50K (4.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (1.0)

| | | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | P | | | | | | | | | | Relationship = Other-relative: <=50K (3.0)

| | | | | | | | | | | | | | Occupation = Exec-managerial

| | | | | | | | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband: >50K (183.0/81.0)

| | | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | | Age <= 47: >50K (13.0/4.0)

| | | | | | | | | | | | | | | Age > 47: <=50K (9.0/1.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (1.0)

| | | | | | | | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: >50K (1.0)

| | | | | | | | | | | | | | Occupation = Handlers-cleaners

| | | | | | | | | | | | | | | Race = White

| | | | | | | | | | | | | | | Sex = Male: <=50K (109.0/34.0)

| | | | | | | | | | | | | | | Sex = Female: >50K (3.0)

| | | | | | | | | | | | | | | Race = Black: <=50K (19.0/2.0)

| | | | | | | | | | | | | | | Race = Asian-Pac-Islander: >50K (1.0)

| | | | | | | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | | | | | | Occupation = Prof-specialty: <=50K (60.0/27.0)

| | | | | | | | | | | | | | Occupation = Other-service: <=50K (141.0/20.0)

| | | | | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | | | | Hours-per-week <= 63: <=50K (249.0/92.0)

| | | | | | | | | | | | | | | Hours-per-week > 63: >50K (10.0/2.0)

| | | | | | | | | | | | | | Occupation = Craft-repair: <=50K (768.0/270.0)

| | | | | | | | | | | | | | Occupation = Transport-moving: <=50K (329.0/115.0)

| | | | | | | | | | | | | | Occupation = Farming-fishing

| | | | | | | | | | | | | | | Age <= 49: <=50K (27.0)

| | | | | | | | | | | | | | | Age > 49

| | | | | | | | | | | | | | | | Hours-per-week <= 51: <=50K (16.0/3.0)

| | | | | | | | | | | | | | | | Hours-per-week > 51

| | | | | | | | | | | | | | | | | Hours-per-week <= 56: >50K (2.0)

| | | | | | | | | | | | | | | | | Hours-per-week > 56

| | | | | | | | | | | | | | | | | | Age <= 51: >50K (2.0)

| | | | | | | | | | | | | | | | | | Age > 51: <=50K (2.0)

| | | | | | | | | | | | | Occupation = Machine-op-inspct

| | | | | | | | | | | | | | Capital-gain <= 2993: <=50K (357.0/106.0)

| | | | | | | | | | | | | | Capital-gain > 2993

| | | | | | | | | | | | | | | Capital-gain <= 4101

| | | | | | | | | | | | | | | Capital-gain <= 3103: >50K (4.0)

| | | | | | | | | | | | | | | Capital-gain > 3103: <=50K (11.0)

| | | | | | | | | | | | | | | Capital-gain > 4101: >50K (9.0/1.0)

| | | | | | | | | | | | | Occupation = Tech-support: >50K (51.0/23.0)

| | | | | | | | | | | | | Occupation = ?: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Protective-serv: <=50K (30.0/9.0)

| | | | | | | | | | | | | Occupation = Armed-Forces: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Priv-house-serv: <=50K (5.0/1.0)

| | | | | | | | | | | | Capital-loss > 1510: <=50K (29.0)

| | | | | | | | | | | Workclass = Federal-gov

| | | | | | | | | | | Occupation = Adm-clerical

| | | | | | | | | | | | Hours-per-week <= 39: <=50K (4.0)

| | | | | | | | | | | | Hours-per-week > 39

| | | | | | | | | | | | | Race = White: >50K (54.0/19.0)

| | | | | | | | | | | | | Race = Black

| | | | | | | | | | | | | | Hours-per-week <= 45: <=50K (8.0/2.0)

| | | | | | | | | | | | | | Hours-per-week > 45: >50K (3.0)

| | | | | | | | | | | | | Race = Asian-Pac-Islander: >50K (0.0)

| | | | | | | | | | | | | Race = Amer-Indian-Eskimo: >50K (0.0)

| | | | | | | | | | | | | Race = Other: >50K (0.0)

| | | | | | | | | | | Occupation = Exec-managerial: >50K (7.0/2.0)

| | | | | | | | | | | Occupation = Handlers-cleaners: <=50K (1.0)

| | | | | | | | | | | Occupation = Prof-specialty: <=50K (4.0/2.0)

| | | | | | | | | | | Occupation = Other-service: <=50K (3.0/1.0)

| | | | | | | | | | | Occupation = Sales: <=50K (3.0/1.0)

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| | | | | | | | | | | |      Occupation =  Craft-repair
| | | | | | | | | | | | |    fnlwgt <= 141558:  >50K (6.0)
| | | | | | | | | | | | |    fnlwgt > 141558
| | | | | | | | | | | | | |   Age <= 48
| | | | | | | | | | | | | | |   fnlwgt <= 292816:  <=50K (5.0)
| | | | | | | | | | | | | | |   fnlwgt > 292816:  >50K (4.0/1.0)
| | | | | | | | | | | | | |   Age > 48:  >50K (3.0)
| | | | | | | | | | | |    Occupation =  Transport-moving
| | | | | | | | | | | | |   Race =  White:  <=50K (9.0/2.0)
| | | | | | | | | | | | |   Race =  Black
| | | | | | | | | | | | | |    fnlwgt <= 416415:  >50K (4.0)
| | | | | | | | | | | | | |    fnlwgt > 416415:  <=50K (2.0)
| | | | | | | | | | | | |   Race =  Asian-Pac-Islander:  <=50K (1.0)
| | | | | | | | | | | | |   Race =  Amer-Indian-Eskimo:  <=50K (1.0)
| | | | | | | | | | | | |   Race =  Other:  <=50K (0.0)
| | | | | | | | | | | |    Occupation =  Farming-fishing:  >50K (0.0)
| | | | | | | | | | | |    Occupation =  Machine-op-inspct:  <=50K (5.0/1.0)
| | | | | | | | | | | |    Occupation =  Tech-support
| | | | | | | | | | | | |   Age <= 46:  >50K (2.0)
| | | | | | | | | | | | |   Age > 46:  <=50K (5.0/2.0)
| | | | | | | | | | | |    Occupation =  ?:  >50K (0.0)
| | | | | | | | | | | |    Occupation =  Protective-serv:  <=50K (2.0)
| | | | | | | | | | | |    Occupation =  Armed-Forces:  >50K (0.0)
| | | | | | | | | | | |    Occupation =  Priv-house-serv:  >50K (0.0)
| | | | | | | | | | |   Workclass =  Local-gov:  <=50K (209.0/71.0)
| | | | | | | | | | |   Workclass =  ?:  <=50K (143.0/36.0)
| | | | | | | | | | |   Workclass =  Self-emp-inc
| | | | | | | | | | | |    Occupation =  Adm-clerical:  >50K (3.0/1.0)
| | | | | | | | | | | |    Occupation =  Exec-managerial:  >50K (69.0/28.0)
| | | | | | | | | | | |    Occupation =  Handlers-cleaners:  <=50K (1.0)
| | | | | | | | | | | |    Occupation =  Prof-specialty:  <=50K (3.0/1.0)
| | | | | | | | | | | |    Occupation =  Other-service
```

| | | | | | | | | | | | | | fnlwgt <= 167187: >50K (3.0)

| | | | | | | | | | | | | | fnlwgt > 167187: <=50K (3.0)

| | | | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Husband: >50K (43.0/20.0)

| | | | | | | | | | | | | Relationship = Wife: <=50K (4.0)

| | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Craft-repair

| | | | | | | | | | | | | fnlwgt <= 116167: <=50K (10.0/1.0)

| | | | | | | | | | | | | fnlwgt > 116167

| | | | | | | | | | | | | | Hours-per-week <= 49

| | | | | | | | | | | | | | | Age <= 51: <=50K (10.0/3.0)

| | | | | | | | | | | | | | | Age > 51: >50K (3.0)

| | | | | | | | | | | | | | Hours-per-week > 49: >50K (8.0/1.0)

| | | | | | | | | | | | | Occupation = Transport-moving: <=50K (9.0/1.0)

| | | | | | | | | | | | | Occupation = Farming-fishing: <=50K (9.0/1.0)

| | | | | | | | | | | | | Occupation = Machine-op-inspct: <=50K (1.0)

| | | | | | | | | | | | | Occupation = Tech-support: <=50K (0.0)

| | | | | | | | | | | | | Occupation = ?: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Protective-serv: <=50K (1.0)

| | | | | | | | | | | | | Occupation = Armed-Forces: <=50K (0.0)

| | | | | | | | | | | | | Occupation = Priv-house-serv: <=50K (0.0)

| | | | | | | | | | | | Workclass = Without-pay: <=50K (3.0/1.0)

| | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | Education-num > 9

| | | | | | | | | | Capital-loss <= 1510

| | | | | | | | | | | Occupation = Adm-clerical

| | | | | | | | | | | | Workclass = State-gov: <=50K (14.0/5.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc: >50K (4.0/1.0)

| | | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | P | | | | | | | | | Relationship = Husband: <=50K (133.0/48.0)

| | | | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Some-college

| | | | | | | | | | | | | | | fnlwgt <= 155509: <=50K (22.0/5.0)

| | | | | | | | | | | | | | | fnlwgt > 155509: >50K (28.0/9.0)

| | | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc: <=50K (10.0/3.0)

| | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Own-child: >50K (2.0)

| | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: >50K (2.0)

| | | | | | | | | | | | | Workclass = Federal-gov: >50K (54.0/18.0)

| | | | | | | | | | | | | Workclass = Local-gov

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband: >50K (9.0/3.0)

| | | | | | | | | | | | | | Relationship = Wife: <=50K (15.0/5.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc: >50K (1.0)

| | | | | | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | | | | Occupation = Exec-managerial

| | | | | | | | | | | | Workclass = State-gov

| | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Husband

| | | | | | | | | | | | | | Age <= 45: <=50K (9.0/1.0)

| | | | | | | | | | | | | | Age > 45: >50K (11.0/3.0)

| | | | | | | | | | | | | Relationship = Wife: >50K (3.0/1.0)

| | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc: <=50K (67.0/21.0)

| | | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | Sex = Male

| | | | | | | | | | | | | | Hours-per-week <= 41

| | | | | | | | | | | | | | Education = Bachelors: >50K (0.0)

| | | | | | | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | | | | | | Education = Masters: >50K (0.0)

| | | | | | | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | | | | | | Education = Some-college: >50K (99.0/44.0)

| | | | | | | | | | | | | | | Education = Assoc-acdm: >50K (0.0)

| | | | | | | | | | | | | | | Education = Assoc-voc: <=50K (24.0/9.0)

| | | | | | | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | | | | | | Education = Doctorate: >50K (0.0)

| | | | | | | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | | | | | | | | | Hours-per-week > 41: >50K (175.0/57.0)

| | | | | | | | | | | | | | | | Sex = Female

| | | | | | | | | | | | | | | | Hours-per-week <= 49

| | | | | | | | | | | | | | | | Age <= 64: >50K (29.0/3.0)

| | | | | | | | | | | | | | | | Age > 64: <=50K (2.0)

| | | | | | | | | | | | | | | | Hours-per-week > 49

| | | | | | | | | | | | | | | | fnlwgt <= 107897: >50K (4.0/1.0)

| | | | | | | | | | | | | | | | fnlwgt > 107897: <=50K (6.0)

| | | | | | | | | | | | | | Workclass = Federal-gov: >50K (25.0/6.0)

| | | | | | | | | | | | | Workclass = Local-gov

| | | | | | | | | | | | | Capital-loss <= 653

| | | | | | | | | | | | | Race = White

| | | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | | Education = Some-college: <=50K (25.0/11.0)

| | | | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc

| | | | | | | | | | | | | | | fnlwgt <= 234428

| | | | | | | | | | | | | | | | Age <= 44: <=50K (3.0/1.0)

| | | | | | | | | | | | | | | | Age > 44: >50K (4.0)

| | | | | | | | | | | | | | | fnlwgt > 234428: <=50K (2.0)

| | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | P a g e | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | | | Race = Black: >50K (2.0)

| | | | | | | | | | | | | | | Race = Asian-Pac-Islander: <=50K (0.0)

| | | | | | | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (2.0/1.0)

| | | | | | | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | | | | | | Capital-loss > 653: >50K (2.0)

| | | | | | | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | | | | | Workclass = Self-emp-inc

| | | | | | | | | | | | | | fnlwgt <= 124692: <=50K (23.0/8.0)

| | | | | | | | | | | | | | fnlwgt > 124692: >50K (67.0/16.0)

| | | | | | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | | | Occupation = Handlers-cleaners: <=50K (91.0/18.0)

| | | | | | | | | | | Occupation = Prof-specialty

| | | | | | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | | | | | Relationship = Husband

| | | | | | | | | | | | | Workclass = State-gov: >50K (14.0/5.0)

| | | | | | | | | | | | | Workclass = Self-emp-not-inc: <=50K (19.0/6.0)

| | | | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | | Hours-per-week <= 51: >50K (146.0/63.0)

| | | | | | | | | | | | | | Hours-per-week > 51: <=50K (11.0/3.0)

| | | | | | | | | | | | | Workclass = Federal-gov: >50K (12.0/3.0)

| | | | | | | | | | | | | Workclass = Local-gov

| | | | | | | | | | | | | | Hours-per-week <= 42: >50K (6.0/2.0)

| | | | | | | | | | | | | | Hours-per-week > 42: <=50K (2.0)

| | | | | | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc: <=50K (4.0/2.0)

| | | | | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | | | | Relationship = Wife

| | | | | | | | | | | | | Capital-gain <= 3471: >50K (36.0/9.0)

| | | | | | | | | | | | | Capital-gain > 3471: <=50K (2.0)

| | | | | | | | | | | | | Relationship = Own-child: >50K (0.0)

| | | | | | | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | | | | | | Relationship = Other-relative: <=50K (1.0)

| | | | | | | | | | | Occupation = Other-service: <=50K (142.0/31.0)

| | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | Workclass = State-gov: <=50K (2.0/1.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | fnlwgt <= 345734

| | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | Education = Some-college: <=50K (51.0/13.0)

| | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | Education = Assoc-voc

| | | | | | | | | | | | | | Age <= 46: <=50K (5.0/1.0)

| | | | | | | | | | | | | | Age > 46: >50K (3.0)

| | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | fnlwgt > 345734: >50K (7.0)

| | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | fnlwgt <= 89259: <=50K (67.0/17.0)

| | | | | | | | | | | | fnlwgt > 89259

| | | | | | | | | | | | | Capital-gain <= 1506

| | | | | | | | | | | | | | | | | | Age <= 40: <=50K (112.0/47.0)

| | | | P | | | | | | | | | | | | Age > 40: >50K (135.0/50.0)

| | | | | | | | | | | | | | | | Capital-gain > 1506

| | | | | | | | | | | | | | | | Capital-gain <= 3103: >50K (3.0)

| | | | | | | | | | | | | | | | Capital-gain > 3103: <=50K (11.0/3.0)

| | | | | | | | | | | | Workclass = Federal-gov: <=50K (0.0)

| | | | | | | | | | | | Workclass = Local-gov: <=50K (1.0)

| | | | | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | | | | Workclass = Self-emp-inc

| | | | | | | | | | | | | Hours-per-week <= 42

| | | | | | | | | | | | | Hours-per-week <= 39: >50K (4.0/1.0)

| | | | | | | | | | | | | | Hours-per-week > 39: <=50K (11.0/2.0)

| | | | | | | | | | | | | Hours-per-week > 42: >50K (42.0/12.0)

| | | | | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | | | Occupation = Craft-repair

| | | | | | | | | | | | Race = White: <=50K (718.0/279.0)

| | | | | | | | | | | | Race = Black

| | | | | | | | | | | | | Age <= 38: <=50K (6.0/1.0)

| | | | | | | | | | | | | Age > 38: >50K (26.0/8.0)

| | | | | | | | | | | | Race = Asian-Pac-Islander

| | | | | | | | | | | | | Age <= 47: <=50K (17.0/5.0)

| | | | | | | | | | | | | Age > 47: >50K (7.0/1.0)

| | | | | | | | | | | | Race = Amer-Indian-Eskimo

| | | | | | | | | | | | | Age <= 37: <=50K (2.0)

| | | | | | | | | | | | | Age > 37

| | | | | | | | | | | | | | Age <= 44: >50K (2.0)

| | | | | | | | | | | | | | Age > 44: <=50K (3.0/1.0)

| | | | | | | | | | | | Race = Other: <=50K (2.0/1.0)

| | | | | | | | | | | Occupation = Transport-moving

| | | | | | | | | | | | Workclass = State-gov: <=50K (4.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Some-college: <=50K (11.0/2.0)

| | | | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc: >50K (2.0)

| | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Private: <=50K (155.0/59.0)

| | | | | | | | | | | | | Workclass = Federal-gov

| | | | | | | | | | | | | | Race = White: >50K (2.0)

| | | | | | | | | | | | | | Race = Black: <=50K (2.0)

| | | | | | | | | | | | | | Race = Asian-Pac-Islander: <=50K (0.0)

| | | | | | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Local-gov: <=50K (14.0/3.0)

| | | | | | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc: >50K (7.0/1.0)

| | | | | | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | | | | | Occupation = Farming-fishing: <=50K (143.0/29.0)

| | | | | | | | | | | | Occupation = Machine-op-inspct: <=50K (193.0/63.0)

| | | | | | | | | | | | Occupation = Tech-support

| | | | | | | | | | | | | Capital-gain <= 3103: >50K (166.0/69.0)

| | | | | | | | | | | | | Capital-gain > 3103: <=50K (12.0/2.0)

| | | | | | | | | | | Occupation = ?

| | | | | | | | | | | | Education = Bachelors: <=50K (0.0)

| | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | Education = Masters: <=50K (0.0)

| | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | Education = Some-college: <=50K (57.0/17.0)

| | | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | Education = Assoc-voc

| | | | | | | | | | | | | Hours-per-week <= 47

| | | | | | | | | | | | | | Relationship = Not-in-family: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Husband: <=50K (7.0/1.0)

| | | | | | | | | | | | | | Relationship = Wife: >50K (3.0/1.0)

| | | | | | | | | | | | | | Relationship = Own-child: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Unmarried: <=50K (0.0)

| | | | | | | | | | | | | | Relationship = Other-relative: <=50K (0.0)

| | | | | | | | | | | | | | Hours-per-week > 47: >50K (6.0)

| | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | Occupation = Protective-serv

| | | | | | | | | | | | Age <= 58

| | | | | | | | | | | | | Age <= 35: <=50K (37.0/10.0)

| | | | | | | | | | | | | Age > 35

| | | | | | | | | | | | | | fnlwgt <= 124111: <=50K (22.0/5.0)

| | | | | | | | | | | | | | | fnlwgt > 124111: >50K (85.0/24.0)

| | | | | | | | | | | | | Age > 58: <=50K (14.0/1.0)

| | | | | | | | | | | Occupation = Armed-Forces: >50K (1.0)

| | | | | | | | | | | Occupation = Priv-house-serv: <=50K (0.0)

| | | | | | | | | | Capital-loss > 1510: <=50K (43.0/1.0)

| | | | | Capital-gain > 5060

| | | | | | Capital-gain <= 6612: >50K (95.0)

| | | | | | Capital-gain > 6612: <=50K (5.0)

| | | Education-num > 11

| | | | Hours-per-week <= 30

| | | | | Sex = Male: <=50K (386.0/111.0)

| | | | | Sex = Female

| | | | | | Occupation = Adm-clerical

| | | | | | | fnlwgt <= 99604: <=50K (6.0/1.0)

| | | | | | | fnlwgt > 99604

| | | | | | | | fnlwgt <= 247895: >50K (9.0/1.0)

| | | | | | | | fnlwgt > 247895: <=50K (6.0/1.0)

| | | | | | Occupation = Exec-managerial: >50K (17.0/3.0)

| | | | | | Occupation = Handlers-cleaners: >50K (0.0)

| | | | | | Occupation = Prof-specialty

| | | | | | | Workclass = State-gov: >50K (6.0/1.0)

| | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | fnlwgt <= 54608: <=50K (4.0/1.0)

| | | | | | | | fnlwgt > 54608: >50K (7.0)

| | | | | | | Workclass = Private: >50K (31.0/7.0)

| | | | | | | Workclass = Federal-gov: >50K (0.0)

| | | | | | | Workclass = Local-gov

| | | | | | | | Age <= 39: >50K (6.0/1.0)

| | | | | | | | Age > 39: <=50K (8.0/1.0)

| | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | Workclass = Self-emp-inc: >50K (0.0)

| | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | Occupation = Other-service: <=50K (6.0/3.0)

| | | | | | | Occupation = Sales

| | | | | | | | Education = Bachelors

| | | | | | | | | Age <= 31: <=50K (2.0)

| | | | | | | | | Age > 31: >50K (5.0/1.0)

| | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | Education = Masters: >50K (1.0)

| | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | Education = Assoc-acdm: <=50K (3.0)

| | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | Occupation = Craft-repair: <=50K (2.0/1.0)

| | | | | | | Occupation = Transport-moving: >50K (0.0)

| | | | | | | Occupation = Farming-fishing: >50K (0.0)

| | | | | | | Occupation = Machine-op-inspct: <=50K (1.0)

| | | | | | | Occupation = Tech-support

| | | | | | | | Age <= 40: <=50K (7.0/2.0)

| | | | | | | | Age > 40: >50K (3.0)

| | | | | | | Occupation = ?

| | | | | | | | fnlwgt <= 208584

| | | | | | | | | Age <= 30: <=50K (5.0)

| | | | | | | | | Age > 30

| | | | | | | | | | fnlwgt <= 127016: >50K (5.0)

| | | | | | | | | | fnlwgt > 127016: <=50K (9.0/2.0)

| | | | | | | | fnlwgt > 208584: >50K (9.0/3.0)

| | | | | | | Occupation = Protective-serv: >50K (0.0)

| | | | | | | Occupation = Armed-Forces: >50K (0.0)

| | | | | | | Occupation = Priv-house-serv: >50K (1.0)

| | | | Hours-per-week > 30

| | | | | Age <= 33

| | | | | | Age <= 25: <=50K (121.0/28.0)

| | | | | | Age > 25

| | | | | | | Native-country = United-States

| | | | | | | | Education-num <= 12: <=50K (115.0/36.0)

| | | | | | | | Education-num > 12

| | | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | | Relationship = Husband

| | | | | | | | | | Occupation = Adm-clerical

| | | | | | | | | | | Age <= 31

| | | | | | | | | | | | Age <= 29: <=50K (8.0/1.0)

| | | | | | | | | | | | Age > 29: >50K (9.0/2.0)

| | | | | | | | | | | Age > 31: <=50K (8.0/3.0)

| | | | | | | | | | | Occupation = Exec-managerial

| | | | | | | | | | | Education = Bachelors

| | | | | | | | | | | | Race = White

| | | | | | | | | | | | | Age <= 29: <=50K (49.0/22.0)

| | | | | | | | | | | | | Age > 29: >50K (79.0/21.0)

| | | | | | | | | | | | Race = Black: >50K (6.0)

| | | | | | | | | | | | Race = Asian-Pac-Islander: >50K (0.0)

| | | | | | | | | | | | Race = Amer-Indian-Eskimo: >50K (0.0)

| | | | | | | | | | | | Race = Other: >50K (0.0)

| | | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | | Education = Masters: >50K (17.0/2.0)

| | | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | | | | Education = Some-college: >50K (0.0)

| | | | | | | | | | | | | Education = Assoc-acdm: >50K (0.0)

| | | | | | | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | | | | Education = Doctorate: <=50K (1.0)

| | | | | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | | | | Occupation = Handlers-cleaners

| | | | | | | | | | | | Hours-per-week <= 45: <=50K (3.0)

| | | | | | | | | | | | Hours-per-week > 45: >50K (2.0)

| | | | | | | | | | | | Occupation = Prof-specialty

| | | | | | | | | | | | Workclass = State-gov: >50K (16.0/7.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | Hours-per-week <= 52: >50K (7.0)

| | | | | | | | | | | | | Hours-per-week > 52

| | | | | | | | | | | | | | fnlwgt <= 151693: >50K (2.0)

| | | | | | | | | | | | | | fnlwgt > 151693: <=50K (2.0)

| | | | | | | | | | | | Workclass = Private

| | | | | | | | | | | | | Age <= 28

| | | | | | | | | | | | | Education = Bachelors

| | | | | | | | | | | | | | Hours-per-week <= 56: <=50K (19.0/6.0)

| | | | | | | | | | | | | | Hours-per-week > 56: >50K (2.0)

| | | | | | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | | | | Education = Masters

| | | | | | | | | | | | | | Hours-per-week <= 46: >50K (4.0/1.0)

| | | | | | | | | | | | | | Hours-per-week > 46: <=50K (3.0)

| | | | | | | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | P | | | | | | | | | | Education = Assoc-acdm: <=50K (0.0)

| | | | | | | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Doctorate: <=50K (2.0/1.0)

| | | | | | | | | | | | | | Education = Prof-school

| | | | | | | | | | | | | | | Hours-per-week <= 55: >50K (2.0)

| | | | | | | | | | | | | | | Hours-per-week > 55: <=50K (2.0)

| | | | | | | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | | | | | | | Age > 28: >50K (116.0/38.0)

| | | | | | | | | | | | | Workclass = Federal-gov: >50K (11.0/4.0)

| | | | | | | | | | | | | Workclass = Local-gov: <=50K (35.0/13.0)

| | | | | | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc: >50K (5.0/1.0)

| | | | | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | | | | Occupation = Other-service

| | | | | | | | | | | | fnlwgt <= 120676: >50K (2.0)

| | | | | | | | | | | | fnlwgt > 120676: <=50K (7.0/1.0)

| | | | | | | | | | | Occupation = Sales

| | | | | | | | | | | | Workclass = State-gov: >50K (0.0)

| | | | | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | | | | fnlwgt <= 134004: <=50K (3.0)

| | | | | | | | | | | | | fnlwgt > 134004

| | | | | | | | | | | | | | fnlwgt <= 326400: >50K (2.0)

| | | | | | | | | | | | | | fnlwgt > 326400: <=50K (2.0)

| | | | | | | | | | | | Workclass = Private: >50K (88.0/33.0)

| | | | | | | | | | | | Workclass = Federal-gov: >50K (0.0)

| | | | | | | | | | | | | Workclass = Local-gov: <=50K (1.0)

| | | | P | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | | | | Workclass = Self-emp-inc

| | | | | | | | | | | | | Age <= 30: >50K (4.0)

| | | | | | | | | | | | | Age > 30: <=50K (6.0/2.0)

| | | | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | | | Occupation = Craft-repair

| | | | | | | | | | | Hours-per-week <= 42: <=50K (20.0/6.0)

| | | | | | | | | | | Hours-per-week > 42: >50K (16.0/7.0)

| | | | | | | | | | | Occupation = Transport-moving: <=50K (2.0/1.0)

| | | | | | | | | | | Occupation = Farming-fishing: <=50K (8.0/1.0)

| | | | | | | | | | | Occupation = Machine-op-inspct: <=50K (5.0/1.0)

| | | | | | | | | | Occupation = Tech-support

| | | | | | | | | | | Workclass = State-gov: >50K (2.0)

| | | | | | | | | | | Workclass = Self-emp-not-inc: >50K (0.0)

| | | | | | | | | | | Workclass = Private

| | | | | | | | | | | Race = White

| | | | | | | | | | | | fnlwgt <= 142049: >50K (5.0/1.0)

| | | | | | | | | | | | fnlwgt > 142049: <=50K (11.0/3.0)

| | | | | | | | | | | Race = Black: <=50K (0.0)

| | | | | | | | | | | Race = Asian-Pac-Islander: >50K (2.0)

| | | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | | | Workclass = Federal-gov: >50K (0.0)

| | | | | | | | | | | Workclass = Local-gov: >50K (0.0)

| | | | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | | | Workclass = Self-emp-inc: >50K (0.0)

| | | | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | | | Occupation = ?: >50K (2.0)

| | | | | | | | | | Occupation = Protective-serv

| | | | | | | | | | | | | | Hours-per-week <= 69

| | | | | | | | | | | | | | Race = White

| | | | | | | | | | | | | | | fnlwgt <= 225339: <=50K (10.0/2.0)

| | | | | | | | | | | | | | | fnlwgt > 225339: >50K (4.0)

| | | | | | | | | | | | | | Race = Black: <=50K (4.0/2.0)

| | | | | | | | | | | | | | Race = Asian-Pac-Islander: <=50K (0.0)

| | | | | | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | | | | | | Hours-per-week > 69: >50K (4.0)

| | | | | | | | | | | | Occupation = Armed-Forces: >50K (0.0)

| | | | | | | | | | | | Occupation = Priv-house-serv: >50K (0.0)

| | | | | | | | | | | Relationship = Wife: >50K (107.0/29.0)

| | | | | | | | | | | Relationship = Own-child: <=50K (2.0)

| | | | | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | | | | Relationship = Other-relative: <=50K (6.0/1.0)

| | | | | | | | Native-country = Cuba: >50K (3.0/1.0)

| | | | | | | | Native-country = Jamaica: <=50K (1.0)

| | | | | | | | Native-country = India

| | | | | | | | | Workclass = State-gov: >50K (2.0)

| | | | | | | | | Workclass = Self-emp-not-inc: <=50K (0.0)

| | | | | | | | | Workclass = Private: <=50K (10.0/2.0)

| | | | | | | | | Workclass = Federal-gov: <=50K (0.0)

| | | | | | | | | Workclass = Local-gov: <=50K (0.0)

| | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | Workclass = Self-emp-inc: <=50K (0.0)

| | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | Native-country = ?: <=50K (21.0/7.0)

| | | | | | | | Native-country = Mexico: <=50K (9.0/1.0)

| | | | | | | | Native-country = South: <=50K (1.0)

| | | | | | | | Native-country = Puerto-Rico: <=50K (1.0)

| | | | | | | | Native-country = Honduras: >50K (1.0)

| | | | | | | | Native-country = England

| | | | | | | | | Age <= 32: >50K (3.0)

| | | | | | | | | Age > 32: <=50K (3.0)

| | | | | | | | Native-country = Canada: <=50K (4.0/1.0)

| | | | | | | | Native-country = Germany: <=50K (4.0/1.0)

| | | | | | | | Native-country = Iran: >50K (3.0/1.0)

| | | | | | | | Native-country = Philippines: <=50K (6.0/3.0)

| | | | | | | | Native-country = Italy: <=50K (2.0)

| | | | | | | | Native-country = Poland: >50K (0.0)

| | | | | | | | Native-country = Columbia: <=50K (3.0/1.0)

| | | | | | | | Native-country = Cambodia: <=50K (1.0)

| | | | | | | | Native-country = Thailand: >50K (2.0)

| | | | | | | | Native-country = Ecuador: <=50K (2.0)

| | | | | | | | Native-country = Laos: >50K (0.0)

| | | | | | | | Native-country = Taiwan: <=50K (3.0/1.0)

| | | | | | | | Native-country = Haiti: <=50K (2.0)

| | | | | | | | Native-country = Portugal: <=50K (1.0)

| | | | | | | | Native-country = Dominican-Republic: <=50K (2.0/1.0)

| | | | | | | | Native-country = El-Salvador: <=50K (3.0)

| | | | | | | | Native-country = France: >50K (3.0)

| | | | | | | | Native-country = Guatemala: >50K (0.0)

| | | | | | | | Native-country = China

| | | | | | | | | fnlwgt <= 315203: <=50K (2.0)

| | | | | | | | | fnlwgt > 315203: >50K (2.0)

| | | | | | | | Native-country = Japan

| | | | | | | | | fnlwgt <= 104879: >50K (2.0)

| | | | | | | | | fnlwgt > 104879: <=50K (5.0)

| | | | | | | | Native-country = Yugoslavia: <=50K (2.0/1.0)

| | | | | | | | Native-country = Peru: >50K (0.0)

| | | | | | | | Native-country = Outlying-US(Guam-USVI-etc): >50K (0.0)

| | | | | | | | Native-country = Scotland: >50K (0.0)

| | | | | | | | Native-country = Trinadad&Tobago: >50K (0.0)

| | | | | | | | Native-country = Greece: >50K (1.0)

| | | | | | | | Native-country = Nicaragua: <=50K (2.0)

| | | | | | | | Native-country = Vietnam: >50K (1.0)

| | | | | | | | Native-country = Hong

| | | | | | | | | fnlwgt <= 141962: <=50K (2.0)

| | | | | | | | | fnlwgt > 141962: >50K (4.0)

| | | | | | | | Native-country = Ireland: >50K (0.0)

| | | | | | | | Native-country = Hungary: >50K (0.0)

| | | | | | | | Native-country = Holand-Netherlands: >50K (0.0)

| | | | | | Age > 33

| | | | | | | Occupation = Adm-clerical

| | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | Relationship = Husband

| | | | | | | | | Age <= 58

| | | | | | | | | | Age <= 41: <=50K (66.0/30.0)

| | | | | | | | | | Age > 41

| | | | | | | | | | | Capital-gain <= 3942: >50K (101.0/31.0)

| | | | | | | | | | | Capital-gain > 3942

| | | | | | | | | | | | Capital-gain <= 5060: <=50K (3.0)

| | | | | | | | | | | | Capital-gain > 5060: >50K (2.0)

| | | | | | | | | Age > 58: <=50K (16.0/7.0)

| | | | | | | | Relationship = Wife

| | | | | | | | | Age <= 57: >50K (41.0/12.0)

| | | | | | | | | Age > 57: <=50K (3.0)

| | | | | | | | Relationship = Own-child: <=50K (1.0)

| | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | Relationship = Other-relative: >50K (3.0/1.0)

| | | | | | | Occupation = Exec-managerial

| | | | | | | | Workclass = State-gov

| | | | | | | | | Hours-per-week <= 46

| | | | | | | | | | Age <= 41: <=50K (12.0/3.0)

| | | | | | | | | | Age > 41

| | | | | | | | | | | | Age <= 53: >50K (23.0/2.0)

| | | | | | | | | | | | Age > 53

| | | | | | | | | | | | | Education = Bachelors: <=50K (10.0/3.0)

| | | | | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | | | | Education = Masters: >50K (5.0)

| | | | | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | | | | Education = Some-college: >50K (0.0)

| | | | | | | | | | | | | Education = Assoc-acdm: >50K (0.0)

| | | | | | | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | | | | Education = Doctorate: >50K (0.0)

| | | | | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | Hours-per-week > 46: >50K (18.0)

| | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | Age <= 61

| | | | | | | | | | Education = Bachelors: <=50K (65.0/32.0)

| | | | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | | | Education = Masters

| | | | | | | | | | | Age <= 54: >50K (13.0/2.0)

| | | | | | | | | | | Age > 54: <=50K (2.0)

| | | | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | | | Education = Some-college: >50K (0.0)

| | | | | | | | | | Education = Assoc-acdm

| | | | | | | | | | | fnlwgt <= 100776: >50K (2.0)

| | | | | | | | | | | fnlwgt > 100776: <=50K (7.0)

| | | | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | | | Education = Doctorate: >50K (0.0)

| | | | | | | | | | Education = Prof-school: >50K (0.0)

| | | | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | | | Age > 61: <=50K (7.0)

| | | | | | | | Workclass = Private: >50K (729.0/144.0)

| | | | | | | | Workclass = Federal-gov: >50K (63.0/17.0)

| | | | | | | | Workclass = Local-gov: >50K (87.0/19.0)

| | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | Workclass = Self-emp-inc

| | | | | | | | | Age <= 49

| | | | | | | | | | Hours-per-week <= 65: >50K (71.0/11.0)

| | | | | | | | | | Hours-per-week > 65

| | | | | | | | | | | Age <= 41: >50K (4.0/1.0)

| | | | | | | | | | | Age > 41: <=50K (4.0)

| | | | | | | | | Age > 49

| | | | | | | | | | fnlwgt <= 135315: >50K (13.0)

| | | | | | | | | | fnlwgt > 135315

| | | | | | | | | | | fnlwgt <= 282643: <=50K (17.0/5.0)

| | | | | | | | | | | fnlwgt > 282643

| | | | | | | | | | | | fnlwgt <= 373263: >50K (5.0)

| | | | | | | | | | | | fnlwgt > 373263: <=50K (3.0/1.0)

| | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | Occupation = Handlers-cleaners: <=50K (31.0/10.0)

| | | | | | | Occupation = Prof-specialty: >50K (1421.0/360.0)

| | | | | | | Occupation = Other-service: <=50K (56.0/10.0)

| | | | | | | Occupation = Sales

| | | | | | | | Relationship = Not-in-family: >50K (0.0)

| | | | | | | | Relationship = Husband: >50K (511.0/171.0)

| | | | | | | | Relationship = Wife: <=50K (18.0/7.0)

| | | | | | | | Relationship = Own-child: >50K (2.0)

| | | | | | | | Relationship = Unmarried: >50K (0.0)

| | | | | | | | Relationship = Other-relative: <=50K (1.0)

| | | | | | | Occupation = Craft-repair

| | | | | | | | Education = Bachelors

| | | | | | | | | Workclass = State-gov: >50K (3.0/1.0)

| | | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | | Hours-per-week <= 52: <=50K (22.0/10.0)

| | | | | | | | | | Hours-per-week > 52: >50K (2.0)

| | | | | | | | | Workclass = Private: >50K (89.0/37.0)

| | | | | | | | | Workclass = Federal-gov: >50K (3.0/1.0)

| | | | | | | | | Workclass = Local-gov

| | | | | | | | | | Age <= 44: <=50K (8.0/1.0)

| | | | | | | | | | Age > 44: >50K (3.0)

| | | | | | | | | Workclass = ?: >50K (0.0)

| | | | | | | | | Workclass = Self-emp-inc: <=50K (10.0/3.0)

| | | | | | | | | Workclass = Without-pay: >50K (0.0)

| | | | | | | | | Workclass = Never-worked: >50K (0.0)

| | | | | | | | Education = HS-grad: >50K (0.0)

| | | | | | | | Education = 11th: >50K (0.0)

| | | | | | | | Education = Masters: >50K (19.0/8.0)

| | | | | | | | Education = 9th: >50K (0.0)

| | | | | | | | Education = Some-college: >50K (0.0)

| | | | | | | | Education = Assoc-acdm

| | | | | | | | | Capital-loss <= 653

| | | | | | | | | | Age <= 37: <=50K (15.0/3.0)

| | | | | | | | | | Age > 37

| | | | | | | | | | | fnlwgt <= 153052

| | | | | | | | | | | | Hours-per-week <= 47: <=50K (11.0/2.0)

| | | | | | | | | | | | Hours-per-week > 47: >50K (4.0/1.0)

| | | | | | | | | | | | fnlwgt > 153052: >50K (26.0/5.0)

| | | | | | | | | Capital-loss > 653: <=50K (3.0)

| | | | | | | | Education = Assoc-voc: >50K (0.0)

| | | | | | | | Education = 7th-8th: >50K (0.0)

| | | | | | | | Education = Doctorate: <=50K (1.0)

| | | | | | | | Education = Prof-school: <=50K (5.0/2.0)

| | | | | | | | Education = 5th-6th: >50K (0.0)

| | | | | | | | Education = 10th: >50K (0.0)

| | | | | | | | Education = 1st-4th: >50K (0.0)

| | | | | | | | Education = Preschool: >50K (0.0)

| | | | | | | | Education = 12th: >50K (0.0)

| | | | | | | Occupation = Transport-moving

| | | | | | | | Native-country = United-States

| | | | | | | | | Education = Bachelors

| | | | | | | | | | Age <= 44

| | | | | | | | | | | Hours-per-week <= 46: <=50K (11.0/2.0)

| | | | | | | | | | | Hours-per-week > 46

| | | | | | | | | | | | Hours-per-week <= 53: >50K (2.0)

| | | | | | | | | | | | Hours-per-week > 53: <=50K (4.0/1.0)

| | | | | | | | | | Age > 44

| | | | | | | | | | | Age <= 52: >50K (8.0/1.0)

| | | | | | | | | | | Age > 52: <=50K (4.0)

| | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | Education = Masters: >50K (1.0)

| | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | | Education = Assoc-acdm

| | | | | | | | | | Age <= 49: <=50K (10.0/1.0)

| | | | | | | | | | Age > 49: >50K (3.0)

| | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | Education = Doctorate: <=50K (1.0)

| | | | | | | | | Education = Prof-school: <=50K (0.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Native-country = Cuba: <=50K (1.0)

| | | | | | | | Native-country = Jamaica: <=50K (0.0)

| | | | | | | | Native-country = India: <=50K (0.0)

| | | | | | | | Native-country = ?

| | | | | | | | | Workclass = State-gov: <=50K (0.0)

| | | | | | | | | Workclass = Self-emp-not-inc: <=50K (2.0)

| | | | | | | | | Workclass = Private: >50K (3.0/1.0)

| | | | | | | | | Workclass = Federal-gov: <=50K (0.0)

| | | | | | | | | Workclass = Local-gov: <=50K (0.0)

| | | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | | Workclass = Self-emp-inc: <=50K (0.0)

| | | | | | | | | Workclass = Without-pay: <=50K (0.0)

| | | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | | | Native-country = Mexico: <=50K (0.0)

| | | | | | | | Native-country = South: <=50K (0.0)

| | | | | | | | Native-country = Puerto-Rico: <=50K (0.0)

| | | | | | | | Native-country = Honduras: <=50K (0.0)

| | | | | | | | Native-country = England: <=50K (0.0)

| | | | | | | | Native-country = Canada: >50K (1.0)

| | | | | | | | Native-country = Germany: <=50K (0.0)

| | | | | | | | Native-country = Iran: <=50K (1.0)

| | | | | | | | Native-country = Philippines: <=50K (0.0)

| | | | | | | | Native-country = Italy: <=50K (0.0)

| | | | | | | | Native-country = Poland: <=50K (1.0)

| | | | | | | | Native-country = Columbia: <=50K (0.0)

| | | | | | | | Native-country = Cambodia: <=50K (0.0)

| | | | | | | | Native-country = Thailand: <=50K (1.0)

| | | | | | | | Native-country = Ecuador: <=50K (0.0)

| | | | | | | | Native-country = Laos: <=50K (0.0)

| | | | | | | | Native-country = Taiwan: <=50K (0.0)

| | | | | | | | Native-country = Haiti: <=50K (0.0)

| | | | | | | | Native-country = Portugal: <=50K (0.0)

| | | | | | | | Native-country = Dominican-Republic: <=50K (0.0)

| | | | | | | | Native-country = El-Salvador: <=50K (0.0)

| | | | | | | | Native-country = France: <=50K (0.0)

| | | | | | | | Native-country = Guatemala: <=50K (0.0)

| | | | | | | | Native-country = China: <=50K (0.0)

| | | | | | | | Native-country = Japan: <=50K (0.0)

| | | | | | | | Native-country = Yugoslavia: <=50K (0.0)

| | | | | | | | Native-country = Peru: <=50K (0.0)

| | | | | | | | Native-country = Outlying-US(Guam-USVI-etc): <=50K (0.0)

| | | | | | | | Native-country = Scotland: <=50K (0.0)

| | | | | | | | Native-country = Trinadad&Tobago: <=50K (0.0)

| | | | | | | | Native-country = Greece: <=50K (0.0)

| | | | | | | | Native-country = Nicaragua: <=50K (0.0)

| | | | | | | | Native-country = Vietnam: <=50K (0.0)

| | | | | | | | Native-country = Hong: <=50K (0.0)

| | | | | | | | Native-country = Ireland: <=50K (0.0)

| | | | | | | | Native-country = Hungary: <=50K (0.0)

| | | | | | | | Native-country = Holand-Netherlands: <=50K (0.0)

| | | | | | | Occupation = Farming-fishing

| | | | | | | | Workclass = State-gov: >50K (1.0)

| | | | | | | | Workclass = Self-emp-not-inc

| | | | | | | | | Education = Bachelors

| | | | | | | | | | | fnlwgt <= 32552: >50K (3.0)

| | | | | | | | | | fnlwgt > 32552: <=50K (25.0/4.0)

| | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | Education = Masters: <=50K (8.0/1.0)

| | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | | Education = Assoc-acdm: <=50K (4.0/1.0)

| | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | Education = Prof-school: >50K (1.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Workclass = Private: <=50K (20.0/6.0)

| | | | | | | | Workclass = Federal-gov: <=50K (2.0/1.0)

| | | | | | | | Workclass = Local-gov: <=50K (0.0)

| | | | | | | | Workclass = ?: <=50K (0.0)

| | | | | | | | Workclass = Self-emp-inc: >50K (6.0)

| | | | | | | | Workclass = Without-pay: <=50K (1.0)

| | | | | | | | Workclass = Never-worked: <=50K (0.0)

| | | | | | Occupation = Machine-op-inspct

| | | | | | | Race = White

| | | | | | | | Education = Bachelors

| | | | | | | | | Hours-per-week <= 41

| | | | | | | | | | | fnlwgt <= 175958: <=50K (13.0/3.0)

| | | | | | | | | | | fnlwgt > 175958: >50K (9.0/2.0)

| | | | | | | | | | Hours-per-week > 41: >50K (4.0)

| | | | | | | | | Education = HS-grad: <=50K (0.0)

| | | | | | | | | Education = 11th: <=50K (0.0)

| | | | | | | | | | Education = Masters: <=50K (4.0/2.0)

| | | | | | | | | Education = 9th: <=50K (0.0)

| | | | | | | | | Education = Some-college: <=50K (0.0)

| | | | | | | | | Education = Assoc-acdm

| | | | | | | | | | | Age <= 49: <=50K (9.0/2.0)

| | | | | | | | | | | Age > 49: >50K (4.0)

| | | | | | | | | Education = Assoc-voc: <=50K (0.0)

| | | | | | | | | Education = 7th-8th: <=50K (0.0)

| | | | | | | | | Education = Doctorate: <=50K (0.0)

| | | | | | | | | Education = Prof-school: <=50K (1.0)

| | | | | | | | | Education = 5th-6th: <=50K (0.0)

| | | | | | | | | Education = 10th: <=50K (0.0)

| | | | | | | | | Education = 1st-4th: <=50K (0.0)

| | | | | | | | | Education = Preschool: <=50K (0.0)

| | | | | | | | | Education = 12th: <=50K (0.0)

| | | | | | | | Race = Black: <=50K (3.0)

| | | | | | | | Race = Asian-Pac-Islander: <=50K (3.0)

| | | | | | | | Race = Amer-Indian-Eskimo: <=50K (1.0)

| | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | Occupation = Tech-support: >50K (126.0/37.0)

| | | | | | | Occupation = ?

| | | | | | | | fnlwgt <= 369909

| | | | | | | | | Hours-per-week <= 44: <=50K (43.0/15.0)

| | | | | | | | | Hours-per-week > 44: >50K (24.0/10.0)

| | | | | | | | fnlwgt > 369909: >50K (6.0)

| | | | | | | Occupation = Protective-serv

| | | | | | | | Age <= 42

| | | | | | | | | Capital-gain <= 1506

| | | | | | | | | | Race = White: <=50K (25.0/8.0)

| | | | | | | | | | Race = Black

| | | | | | | | | | | Age <= 39: <=50K (2.0)

| | | | | | | | | | | Age > 39: >50K (2.0)

| | | | | | | | | | Race = Asian-Pac-Islander: >50K (1.0)

| | | | | | | | | | Race = Amer-Indian-Eskimo: <=50K (0.0)

| | | | | | | | | | Race = Other: <=50K (0.0)

| | | | | | | | | Capital-gain > 1506: >50K (2.0)

| | | | | | | | Age > 42: >50K (43.0/7.0)

| | | | | | | Occupation = Armed-Forces: >50K (1.0)

| | | | | | | Occupation = Priv-house-serv: <=50K (2.0)

| | Capital-loss > 1844

| | | Capital-loss <= 1980: >50K (857.0/18.0)

| | | Capital-loss > 1980

| | | | Capital-loss <= 2163: <=50K (104.0)

| | | | Capital-loss > 2163

| | | | | Capital-loss <= 2415

| | | | | | Capital-loss <= 2377

| | | | | | | Age <= 64: <=50K (38.0/4.0)

| | | | | | | Age > 64: >50K (30.0/3.0)

| | | | | | Capital-loss > 2377: >50K (82.0)

| | | | | Capital-loss > 2415: <=50K (14.0)

| Marital-status = Divorced

| | Capital-gain <= 4687: <=50K (6387.0/480.0)

| | Capital-gain > 4687

| | | Capital-gain <= 4787: >50K (14.0)

| | | Capital-gain > 4787: <=50K (53.0/4.0)

| Marital-status = Married-spouse-absent: <=50K (613.0/44.0)

| Marital-status = Separated

| | Education-num <= 12: <=50K (1318.0/36.0)

| | Education-num > 12

| | | Sex = Male

| | | | Education = Bachelors: <=50K (60.0/12.0)

| | | | Education = HS-grad: <=50K (0.0)

| | | | Education = 11th: <=50K (0.0)

| | | | Education = Masters

| | | | | | Age <= 45: >50K (5.0)

| | | | | | Age > 45: <=50K (10.0/3.0)

| | | | Education = 9th: <=50K (0.0)

| | | | Education = Some-college: <=50K (0.0)

| | | | Education = Assoc-acdm: <=50K (0.0)

| | | | Education = Assoc-voc: <=50K (0.0)

| | | | Education = 7th-8th: <=50K (0.0)

| | | | Education = Doctorate

| | | | | fnlwgt <= 188307: <=50K (3.0)

| | | | | fnlwgt > 188307: >50K (2.0)

| | | | Education = Prof-school: >50K (6.0/1.0)

| | | | Education = 5th-6th: <=50K (0.0)

| | | | Education = 10th: <=50K (0.0)

| | | | Education = 1st-4th: <=50K (0.0)

| | | | Education = Preschool: <=50K (0.0)

| | | | Education = 12th: <=50K (0.0)

| | | Sex = Female: <=50K (101.0/13.0)

| Marital-status = Married-AF-spouse: <=50K (35.0/12.0)

| Marital-status = Widowed

| | Capital-loss <= 2205: <=50K (1460.0/82.0)

| | Capital-loss > 2205

| | | Workclass = State-gov: >50K (0.0)

| | | Workclass = Self-emp-not-inc: >50K (0.0)

| | | Workclass = Private

| | | | Education-num <= 9

| | | | | fnlwgt <= 169460: <=50K (4.0)

| | | | | fnlwgt > 169460: >50K (3.0)

| | | | Education-num > 9: >50K (9.0)

| | | Workclass = Federal-gov: >50K (0.0)

| | | Workclass = Local-gov: <=50K (3.0/1.0)

| | | Workclass = ?: <=50K (5.0)

| | | Workclass = Self-emp-inc: >50K (1.0)

| | | Workclass = Without-pay: >50K (0.0)

| | | Workclass = Never-worked: >50K (0.0)

 Capital-gain > 6849: >50K (2055.0/28.0)

Number of Leaves :   915

Size of the tree :   1159

Time taken to build model: 1.64 seconds

=== Evaluation on test split ===

Time taken to test model on test split: 0.02 seconds

=== Summary ===

Correctly Classified Instances   14252   85.8244 %

Incorrectly Classified Instances   2354   14.1756 %

Kappa statistic   0.5805

Mean absolute error   0.1974

Root mean squared error   0.3236

Relative absolute error   54.2704 %

Root relative squared error   75.9866 %

Total Number of Instances   16606

=== Detailed Accuracy By Class ===

	TP Rate	FP Rate	Precision	Recall	F-Measure	MCC	ROC Area	PRC Area	Class
	0.938	0.397	0.883	0.938	0.910	0.586	0.877	0.940	<=50K
	0.603	0.062	0.752	0.603	0.669	0.586	0.877	0.735	>50K
Weighted Avg.	0.858	0.317	0.852	0.858	0.853	0.586	0.877	0.891	

=== Confusion Matrix ===

    a   b   <-- classified as
11870 785 | a = <=50K
 1569 2382 | b = >50K