Demand Paper

Matthew Aaron Looney

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Contents

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##
## Regression Data (99 observations, 5 variable(s)):
##
## Regression Type: Local-Linear
## Bandwidth Selection Method: Expected Kullback-Leibler Cross-Validation
## Formula: beef_q ~ beef_p + pork_p + chick_p + turkey_p + meat_exp
## Bandwidth Type: Fixed
## Objective Function Value: -6.032008 (achieved on multistart 3)
##
## Exp. Var. Name: beef_p   Bandwidth: 88174.26  Scale Factor: 978334.9
## Exp. Var. Name: pork_p   Bandwidth: 0.1027894 Scale Factor: 0.9096501
## Exp. Var. Name: chick_p  Bandwidth: 0.1255376 Scale Factor: 1.241552
## Exp. Var. Name: turkey_p Bandwidth: 47252.16  Scale Factor: 1115768
## Exp. Var. Name: meat_exp Bandwidth: 23411.49  Scale Factor: 253085.2
##
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5
## Estimation Time: 4.521 seconds

##
## Regression Data (99 observations, 5 variable(s)):
##
## Regression Type: Local-Linear
## Bandwidth Selection Method: Expected Kullback-Leibler Cross-Validation
## Formula: pork_q ~ beef_p + pork_p + chick_p + turkey_p + meat_exp
## Bandwidth Type: Fixed
## Objective Function Value: -5.728182 (achieved on multistart 3)
##
## Exp. Var. Name: beef_p   Bandwidth: 80254.65  Scale Factor: 890463.1
## Exp. Var. Name: pork_p   Bandwidth: 38273.82  Scale Factor: 338710
## Exp. Var. Name: chick_p  Bandwidth: 84332.6   Scale Factor: 834039.5
## Exp. Var. Name: turkey_p Bandwidth: 15864.58  Scale Factor: 374611.2
## Exp. Var. Name: meat_exp Bandwidth: 0.1183873 Scale Factor: 1.279802
##
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5
## Estimation Time: 3.189 seconds

##
## Regression Data (99 observations, 5 variable(s)):
##
## Regression Type: Local-Linear
## Bandwidth Selection Method: Expected Kullback-Leibler Cross-Validation
## Formula: chick_q ~ beef_p + pork_p + chick_p + turkey_p + meat_exp
## Bandwidth Type: Fixed
## Objective Function Value: -4.891722 (achieved on multistart 1)
```

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##
## Exp. Var. Name: beef_p   Bandwidth: 0.1800487 Scale Factor: 1.997725
## Exp. Var. Name: pork_p   Bandwidth: 0.0714485 Scale Factor: 0.6322945
## Exp. Var. Name: chick_p  Bandwidth: 0.143262  Scale Factor: 1.416844
## Exp. Var. Name: turkey_p Bandwidth: 10104.44  Scale Factor: 238596.5
## Exp. Var. Name: meat_exp Bandwidth: 8359.655  Scale Factor: 90370.35
##
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5
## Estimation Time: 4.703 seconds

##
## Regression Data (99 observations, 5 variable(s)):
##
## Regression Type: Local-Linear
## Bandwidth Selection Method: Expected Kullback-Leibler Cross-Validation
## Formula: turkey_q ~ beef_p + pork_p + chick_p + turkey_p + meat_exp
## Bandwidth Type: Fixed
## Objective Function Value: -1.839454 (achieved on multistart 1)
##
## Exp. Var. Name: beef_p   Bandwidth: 180326.4  Scale Factor: 2000806
## Exp. Var. Name: pork_p   Bandwidth: 51436.13  Scale Factor: 455191.9
## Exp. Var. Name: chick_p  Bandwidth: 0.1400936 Scale Factor: 1.38551
## Exp. Var. Name: turkey_p Bandwidth: 65513.91  Scale Factor: 1546983
## Exp. Var. Name: meat_exp Bandwidth: 1.151836  Scale Factor: 12.45169
##
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5
## Estimation Time: 4.943 seconds

##
## Regression Data: 99 training points, in 5 variable(s)
##                 beef_p    pork_p   chick_p turkey_p meat_exp
## Bandwidth(s): 88174.26 0.1027894 0.1255376 47252.16 23411.49
##
## Kernel Regression Estimator: Local-Linear
## Bandwidth Type: Fixed
## Residual standard error: 0.02431444
## R-squared: 0.9514713
##
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5

##
## Regression Data: 99 training points, in 5 variable(s)
##                 beef_p   pork_p chick_p turkey_p  meat_exp
## Bandwidth(s): 80254.65 38273.82 84332.6 15864.58 0.1183873
##
## Kernel Regression Estimator: Local-Linear
## Bandwidth Type: Fixed
## Residual standard error: 0.02962499
## R-squared: 0.8561137
##
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5
```
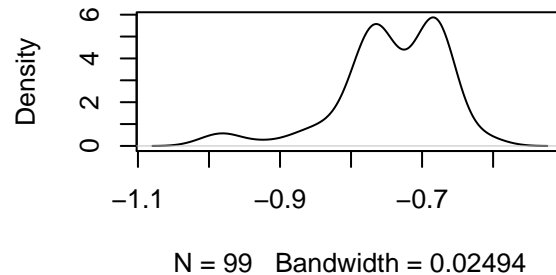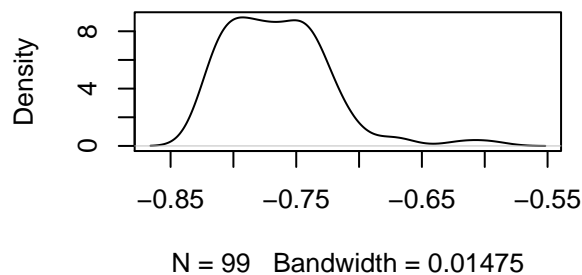
```
## 
## Regression Data: 99 training points, in 5 variable(s)
##                 beef_p    pork_p  chick_p turkey_p meat_exp
## Bandwidth(s): 0.1800487 0.0714485 0.143262 10104.44 8359.655
## 
## Kernel Regression Estimator: Local-Linear
## Bandwidth Type: Fixed
## Residual standard error: 0.03797608
## R-squared: 0.9625472
## 
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5

## 
## Regression Data: 99 training points, in 5 variable(s)
##                beef_p   pork_p   chick_p turkey_p meat_exp
## Bandwidth(s): 180326.4 51436.13 0.1400936 65513.91 1.151836
## 
## Kernel Regression Estimator: Local-Linear
## Bandwidth Type: Fixed
## Residual standard error: 0.2140506
## R-squared: 0.7722601
## 
## Continuous Kernel Type: Second-Order Epanechnikov
## No. Continuous Explanatory Vars.: 5
```

density.default(x = model_1.np$grad[, 1   **density.default(x = model_2.np$grad[, 2**

N = 99   Bandwidth = 0.01475   N = 99   Bandwidth = 0.02494

density.default(x = model_3.np$grad[, 3   **density.default(x = model_4.np$grad[, 4**

N = 99   Bandwidth = 0.1592   N = 99   Bandwidth = 0.1897