x=[19704.71 8441 42658.94 828.36 6634.41;

21512.41 8972.78 38807.98 638.08 6333.12;

23804.71 10099 37297.26 468.1 5954.36;

26252.59 11101.17 67061.93 644.13 10838.22;

29207.44 12216.3 68336.05 610.17 2384.34;

34062.29 14206.29 85899.41 618.12 3084.65;

];

y=[3940;3960;4000;4350;4400;4650];

x'\*x;

count=0;kvec=0.1:0.1:1;

for k=0.1:0.1:1

count=count+1;

[b,bint,r,rint,stats]=ridge1(y,x,k);

bb(:,count)=b;

stats1(count,:)=stats;

end

plot(kvec',bb),xlabel('k'),ylabel('b','FontName','Symbol');

function [b,bint,r,rint,stats] = ridge1(Y,X,k)

[n,p] = size(X);

mx = mean (X);

my = mean (Y);

stdx =std(X);

stdy=std(Y);

idx = find(abs(stdx) < sqrt(eps));

MX = mx(ones(n,1),:);

STDX = stdx(ones(n,1),:);

Z = (X - MX) ./ STDX;

Y=(Y-my)./stdy;

pseudo = sqrt(k\*(n-1)) \* eye(p);

Zplus = [Z;pseudo];

Yplus = [Y;zeros(p,1)];

[b,bint,r,rint,stats] = regress(Yplus,Zplus);