

11.520: A Workshop on Geographic Information Systems

11.188: Urban Planning and Social Science Laboratory

Lab Exercise 7: Raster Spatial Analysis

This lab exercise is due in Lab 8.

(1) What are the original and interpolated values for the grid cell in the NorthWest (upper left) corner of Cambridge that contains the most expensive Realprice value in the original sale89 data set?

Original **sales89** value: _____

sale89_pw2-2 value: _____

sales89_pw1 value: _____

(2) What is this interpolated value of **sale89_1000m** for the cell with the highest-price sale: _____? Why is this estimate even higher than the power=1 estimate?

(3) Find the cell containing the highest price sales89 home in the northwest part of Cambridge. What is the interpolated value of that cell using the two methods based on med_hvalue?

hvalue_point value: _____

hvalue_poly value: _____

(4) Comment briefly on some of the characteristics of this interpolated surface of med_hvalue compares with the ones derived from the sales89 data. Are the hot-spots more concentrated or diffuse? Does one or another approach lead to a broader range of spatial variability?

(5) What is the interpolated housing value based on the Raster Calculator average of the **sale89_pw2-2** and **hval_non0** estimates for the cell containing the highest price sales89 house (in the Northwest corner of Cambridge)?
