

# interpret regressions (and/or research designs / fancy descriptive stats) due: nov19

[version: Wednesday 20<sup>th</sup> November, 2024 18:44]

1. pick published research of interest to you: google scholar 2 papers and link them from the problem set
2. public administration journal or related (policy, sociology, geography); avoid over-complicated and over-mathematicized economics using more fancy regressions than OLS
3. copy-paste regression table or research design schematic/graph/table or description from the published paper into your ps and interpret one slope coefficient from one table from each of the 2 papers **in your own words**
4. **point to specific numbers** from the regression table when interpreting! eg "we know that happiness increases by .2 on scale from 1-5 for increase in income by 1,000\$ because  $\beta$  on income is .2 and it is statistically significant because p-value is lower than .05"
5. must have some research method (some papers don't); ideally OLS regression, and/or some research design as discussed in res.des.pdf; at very least some rather complex and involved descriptive statistics; if not 100% sure, email me! (a quick way to find some paper is to go to google scholar and say instead of usual query 'income and happiness' say 'income and happiness, ols regression')
6. instead of interpreting others' regressions, can just run your own regressions! say in Python and interpret those, bonus 20perc extra!

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## 24fa generic comments

it does help to say initially whats the unit of analysis

remember "ceteris paribus" or "holding everything else constant"

if independent variable is a dummy, a 0-1 variable, say "male" (v "female" the omitted category), then the interpretation is that being male (v female) is going to produce beta change in y

be clear how are dependent and independent variables measured! ie whats the unit of measurement? dollar, pound, percent, etc? and interpret in those metrics, eg a car heavier by one pound is more expensive by beta dollars, ceteris paribus

remember that regressions need an interpretation in a traditional way: one unit change in x is associated with beta unit change in y (again, name the units: lbs, \$, etc) all tables and figures must be numbered and be referred from text

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### general directions (always the same):

- ps is due in Canvas by the beginning of the class
- keep it short; max: 5 single spaced pages; typically way less, say 1 or 2

- if you are stuck, email me early! also email if you want some feedback and make sure you are on the right track, etc
- show your work, a “naked” number won’t do! unless indicated otherwise, always do calculations by hand
- likewise, numbers should be interpreted—we are not only interested in calculating values of interest, but we are interested in their meaning! whenever you calculate your final quantity of interest, interpret it! do interpret!! do make sure to make sense of the stats you've produced!!
- if your handwriting is bad, please type
- i may want to discuss your assignment in class, which should be beneficial to you and give you more feedback; if however, you'd like to keep it private, let me know!
- numbers in brackets are relative importance of each item for grading; adds up to 10
- always provide source of the original data, eg url, dataset name and brief description