

```
* pics.do: illustrates how to create a do-file, how to do correlation
and regression, & how to make a publication-style regression table, ///
using Joey's algebra hw.
```

```
version 10.0
capture log close
set more off
log using hw, replace
```

```
* Create variables
```

```
input npic price
44 19
31 16
24 13
15 10
end
```

```
* Label variables
```

```
la var npic "# pictures"
la var price "Total Price"
```

```
* Summary statistics (mean, sd, & 5-number summary) & graphs
```

```
summarize price npic, detail
stem price
hist price, norm
gr box price
stem npic
hist npic, norm
gr box npic
```

```
* Scatterplot (checking for non-linearity by using qfit in addition to
lfit)
```

```
twoway scatter price npic || lfit price npic
twoway scatter price npic || qfit price npic
```

```
* There is mild, positive curvilinearity. It may not be pronounced
enough to notably affect the results, & in any case there aren't enough
///
```

```
observations to take corrective action. As always, though, we'll need
to check the residuals for curvilinearity.
```

```
* Correlation
```

```
corr price npic
```

```
* Regression
```

```
reg price npic
```

```
* Check residuals for non-linearity
```

```
rvfplot, yline(0)
predict resid, resid
hist resid, norm
```

```
* There's right skewness, but this may simply reflect the paucity of
observations. In any case, there are too few observations to do
anything ///
```

```
about it. In the last part of the semester we'll introduce the various
other diagnostics, which will be covered in depth in the spring course
///
```

on regression analysis.

```
* Here's one way to create a publication-style regression output table.
eststo clear
reg price npic
eststo m1
esttab using PicPrice.rtf, se b(%9.2f) ar2(%9.2f) starlevels(* .05 **
.01 *** .001) title("OLS Picture~Price Model") ///
addnotes("Note: Put notes here.") replace
* Click on the resulting blue link in the results window, & then edit
as necessary in MS-Word. There are Excel & LaTeX alternatives as well,
if you ///
prefer. See 'help esttab' for the many options. For another way to
create regression tables, type 'findit outreg2' & download the command.
On the ///
course web site see the document 'Using Stata's esttab and outreg2 with
MS-Word to make publication-style regression tables'.

log close
exit
```