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## Stata tip 14: Using value labels in expressions

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Did you know that there is a way in Stata to specify value labels directly in an expression, rather than through the underlying numeric value? You specify the label in double quotes (" "), followed by a colon (:), followed by the name of the value label. If we read in this dataset and see what it contains

```
. webuse census9
(1980 Census data by state)

. describe
Contains data from http://www.stata-press.com/data/r8/census9.dta
  obs:                50                1980 Census data by state
  vars:                5                16 Jul 2002 18:29
  size:              1,550 (99.9% of memory free)
```

variable name	storage type	display format	value label	variable label
state	str14	%-14s		State
drate	float	%9.0g		Death Rate
pop	long	%12.0gc		Population
medage	float	%9.2f		Median age
region	byte	%-8.0g	cenreg	Census region

Sorted by:

we notice that variable **region** has values labeled by the **cenreg** value label. The correspondence between the underlying number and the value label is shown by

```
. label list
cenreg:
      1 NE
      2 N Cntrl
      3 South
      4 West
```

[R] **regress** uses this dataset to illustrate weighted regression. To obtain the regression of **drate** and **medage** restricted to the “South” region, you could type

```
. regress drate medage [aweight=pop] if region == 3
```

But, if you do not remember the underlying region number for “South”, you could also obtain this regression by typing

```
. regress drate medage [aweight=pop] if region == "South":cenreg
(sum of wgt is 7.4734e+07)
```

Source	SS	df	MS			
Model	1072.30989	1	1072.30989	Number of obs =	16	
Residual	550.163155	14	39.2973682	F( 1, 14) =	27.29	
				Prob > F =	0.0001	
				R-squared =	0.6609	
				Adj R-squared =	0.6367	
Total	1622.47305	15	108.16487	Root MSE =	6.2688	

  

drate	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
medage	3.905819	.7477109	5.22	0.000	2.302139	5.509499
_cons	-29.34031	22.33676	-1.31	0.210	-77.2479	18.56727

Typing the value label instead of the underlying number makes it unlikely that you will obtain an unintended result from entering the wrong region number. An added benefit of using the value label is that, when you later review your results, you will quickly see that the regression is for the “South” region, and you will not need to remember what region was assigned number 3.

See [U] **16.9 Label values** for further information about specifying value labels in expressions.