```
. use "C:\Documents and Settings\Michael
Rosenfeld\Desktop\cps_mar_2000_new.dta", clear
```

**. regress incwage vietnam_vet age age_sq male if age>24 & age<65 [aweight=
perwt_rounded]**

```
(sum of wgt is   1.4261e+08)

      Source |       SS       df       MS              Number of obs =   69305
-------------+------------------------------           F(  4, 69300) = 1600.10
       Model |  6.1652e+12     4  1.5413e+12           Prob > F      =  0.0000
    Residual |  6.6754e+13 69300   963258187           R-squared     =  0.0845
-------------+------------------------------           Adj R-squared =  0.0845
       Total |  7.2919e+13 69304  1.0522e+09           Root MSE      =   31036

------------------------------------------------------------------------------
     incwage |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
 vietnam_vet |   3656.148   563.5139     6.49   0.000     2551.662    4760.635
         age |   3177.754   92.44217    34.38   0.000     2996.567     3358.94
      age_sq |  -36.58361   1.049919   -34.84   0.000    -38.64145   -34.52577
        male |   16463.41   242.5037    67.89   0.000      15988.1    16938.71
       _cons |  -45660.57   1953.237   -23.38   0.000    -49488.91   -41832.23
------------------------------------------------------------------------------
```

* Let's talk about model 4 from HW3, and its predicted values. Note that model 4 is a function of veteran status, age, and gender. So all cases with the same veteran status, age, and gender must have the same predicted value for incwage. That is why sd of m4 is zero everywhere there are cases… See also my excel file which has a nice graph of this…

. predict m4

(option xb assumed; fitted values)

**. table age vietnam_vet if male==1, contents (freq mean incwage sd incwage mean
m4 sd m4) replace**

```
----------------------------------------------
                    |       vietnam_vet
                Age |          0            1
--------------------+-------------------------
       Under 1 year |        902
                    |
                    |
                    |   -29197.17
                    |           0
                    |
                  1 |       1,012
                    |
                    |
                    |      -26056
                    |           0
                    |
                  2 |        989
                    |
                    |
                    |      -22988
```

```
         |           0
         |
       3 |       1,020
         |
         |
         |   -19993.16
         |           0
         |
       4 |         952
         |
         |
         |   -17071.49
         |           0
         |
       5 |       1,002
         |
         |
         |   -14222.99
         |           0
         |
       6 |       1,035
         |
         |
         |   -11447.66
         |           0
         |
       7 |       1,096
         |
         |
         |   -8745.488
         |           0
         |
       8 |       1,106
         |
         |
         |   -6116.489
         |           0
         |
       9 |       1,124
         |
         |
         |   -3560.656
         |           0
         |
      10 |       1,118
         |
         |
         |   -1077.991
         |           0
         |
      11 |       1,022
         |
         |
         |    1331.507
         |           0
         |
      12 |       1,028
```

	3667.838
	0
13	1,054
	5931.001
	0
14	978
	8120.998
	0
15	1,038
	339.9566474
	2979.118
	10237.83
	0
16	1,025
	1112.099512
	4823.889
	12281.49
	0
17	1,012
	1794.774704
	3827.998
	14251.98
	0
18	923
	3667.269772
	5895.194
	16149.31
	0
19	942
	6775.192144
	8037.676
	17973.47
	0
20	847
	9024.532468
	11004.08
	19724.46
	0
21	847
	10739.17473
	9899.616
	21402.29

	0
22	807
	12872.61834
	11659.01
	23006.95
	0
23	798
	15935.48246
	12741.71
	24538.44
	0
24	784
	17406.85969
	14331.41
	25996.77
	0
25	798
	22123.82707
	18472.72
	27381.92
	0
26	797
	24747.51443
	23609.84
	28693.91
	0
27	855
	25752.27368
	21274.09
	29932.73
	0
28	899
	27821.63849
	22776.62
	31098.39
	0
29	919
	28311.4494
	23344.22
	32190.88
	0
30	964
	30421.60581
	28273.65
	33210.2
	0
31	998

	31654.0521
	27474.5
	34156.35
	0
32	922
	34041.74187
	30106.21
	35029.34
	0
33	923
	34517.32611
	32097.7
	35829.16
	0
34	952
	33406.03466
	30435.62
	36555.81
	0
35	1,066
	35319.72514
	35688.91
	37209.29
	0
36	1,024
	37016.88477
	38444.09
	37789.61
	0
37	1,023
	36979.17889
	31978.03
	38296.76
	0
38	1,019
	39957.36016
	39744.63
	38730.75
	0
39	1,074
	39842.40037
	39833.02
	39091.56
	0
40	1,031
	36981.47624
	35130.03
	39379.21

	0	
41	992	9
	37656.84375	37030
	36193.06	24286.43
	39593.69	43249.84
	0	0
42	1,004	24
	40170.66932	56125.625
	38250.87	68124.22
	39735.01	43391.15
	0	0
43	1,003	57
	39824.1655	33374.73684
	39011.58	36653.97
	39803.15	43459.3
	0	0
44	937	89
	38938.39488	29348.21348
	40442.2	24629.07
	39798.13	43454.28
	0	0
45	943	101
	39167.31177	36025.06931
	39606.12	26993.58
	39719.95	43376.09
	0	0
46	804	114
	41076.00622	40313.55263
	43544.88	33537.79
	39568.59	43224.74
	0	0
47	811	150
	40274.92355	34815.8
	43884.29	36393.77
	39344.07	43000.22
	0	0
48	731	161
	43130.75513	41048.98137
	45068.32	42715.39
	39046.38	42702.53
	0	0
49	643	196
	41578.32348	38393.70408
	44975.92	32425.24
	38675.52	42331.67
	0	0
50	668	256

	42659.99551	39307.67188
	45887.56	34709.74
	38231.5	41887.65
	0	0
51	576	309
	43998.0191	32853.2945
	47829.1	30493.05
	37714.31	41370.46
	0	0
52	497	386
	39577.1328	39743.55181
	43558.67	36571.1
	37123.95	40780.1
	0	0
53	491	324
	40300.39715	42620.04938
	46495.33	40061.43
	36460.43	40116.57
	0	0
54	370	264
	34437.42703	40296.04924
	38770.43	39800.74
	35723.73	39379.88
	0	0
55	413	249
	35115.43826	41651.85944
	44984.13	46420.47
	34913.88	38570.02
	0	0
56	431	185
	35600.10209	39872.67027
	44261.91	42819.18
	34030.85	37687
	0	0
57	450	201
	39206.18889	38005.91045
	53390.97	45326.24
	33074.65	36730.8
	0	0
58	387	117
	29724.09302	38786.1453
	37862.13	48326.89
	32045.29	35701.44
	0	0
59	429	88
	31162.92308	38426.14773
	41758.38	48246.64
	30942.76	34598.91

	0	0
60	479	68
	26371.1691	37353.55882
	38603.86	49831.34
	29767.07	33423.21
	0	0
61	460	48
	26037.41087	28720.33333
	36973.76	41402.57
	28518.21	32174.35
	0	0
62	493	39
	21453.50304	32910
	34627.44	56415.32
	27196.17	30852.32
	0	0
63	425	31
	19870.38353	20187.74194
	39926.1	42549.75
	25800.98	29457.13
	0	0
64	412	24
	17332.81068	28447.95833
	34775.02	48560.43
	24332.61	27988.76
	0	0
65	442	22
	12453.07014	26353.59091
	29550.05	54269.02
	22791.08	26447.23
	0	0
66	404	12
	11251.19802	1867.5
	29245.1	4816.378
	21176.38	24832.53
	0	0
67	425	10
	7097.684706	15900
	18326.15	27598.11
	19488.52	23144.66
	0	0
68	390	8
	8842.087179	12437.25
	30636.37	20677.46
	17727.48	21383.63
	0	0
69	411	13

```
     | 5668.693431  6115.384615
     |    18310.12     22049.33
     |    15893.28     19549.43
     |           0            0
     |
  70 |         391            4
     | 6060.956522            0
     |    20408.09            0
     |    13985.91     17642.06
     |           0            0
     |
  71 |         383            9
     | 4789.229765  1533.333333
     |    20034.46         4600
     |    12005.38     15661.53
     |           0            0
     |
  72 |         321            2
     | 4624.912773            0
     |    19670.96            0
     |    9951.676     13607.82
     |           0            0
     |
  73 |         334            3
     | 5663.275449            0
     |    27363.32            0
     |    7824.807     11480.96
     |           0            0
     |
  74 |         366
     | 4655.532787
     |    21413.37
     |     5624.77
     |           0
     |
  75 |         344            6
     | 2854.886628            0
     |     12598.6            0
     |    3351.566     7007.714
     |           0            0
     |
  76 |         275
     | 2131.116364
     |    9310.331
     |    1005.195
     |           0
     |
  77 |         271            1
     | 3502.461255            0
     |    21983.92
     |   -1414.344     2241.804
     |           0
     |
  78 |         272            4
     | 1640.455882            0
     |    7314.455            0
     |   -3907.049    -250.9011
```

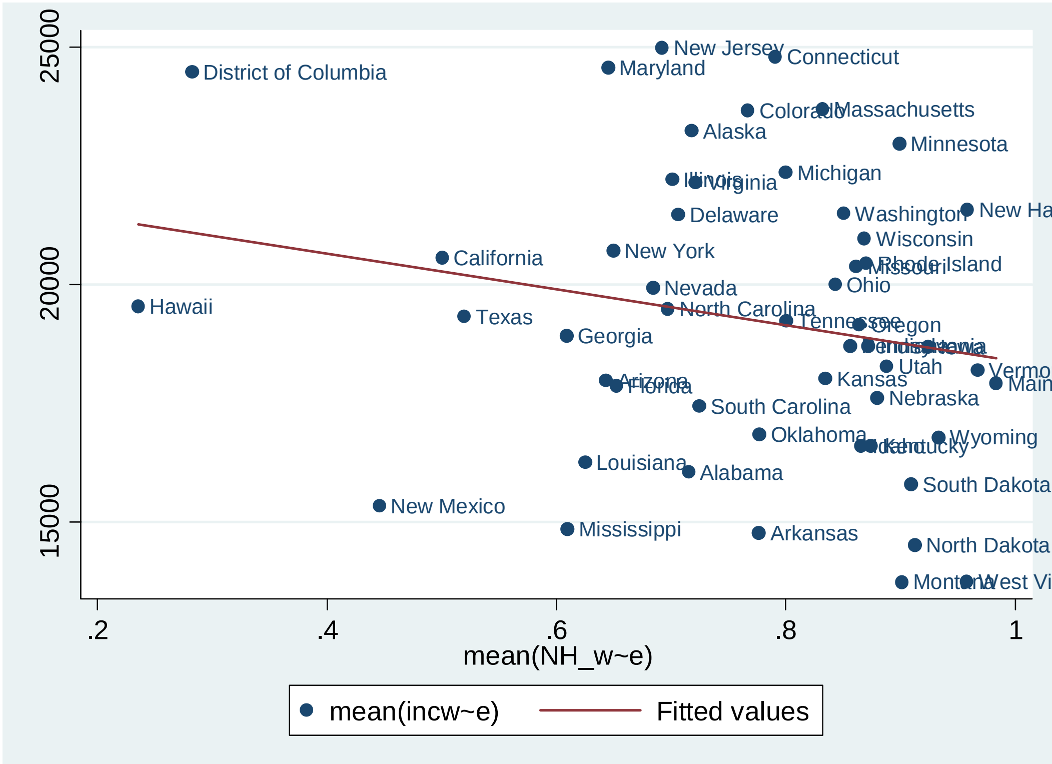
	0	0
79	252	
	2272.619048	
	12552.46	
	-6472.922	
	0	
80	212	
	1881.443396	
	9964.372	
	-9111.962	
	0	
81	198	
	3704.888889	
	24734.76	
	-11824.17	
	0	
82	173	
	930.0578035	
	5482.405	
	-14609.54	
	0	
83	159	
	1369.886792	
	9145.338	
	-17468.09	
	0	
84	118	
	988.720339	
	5774.256	
	-20399.79	
	0	
85	110	
	1160.909091	
	9614.898	
	-23404.67	
	0	
86	79	
	1673.417722	
	10618.57	
	-26482.71	
	0	
87	77	
	792.2077922	
	5456.979	
	-29633.93	
	0	
88	52	

```
                     |         400
                     |    1857.259
                     |    -32858.3
                     |           0
                     |
                  89 |          53
                     | 415.0943396
                     |     2113.91
                     |   -36155.85
                     |           0
                     |
90 (90+, 1988-2002) |         121
                     | 280.9917355
                     |    2356.633
                     |   -39526.56
                     |           0
----------------------------------------------
```

```
. clear

. use "C:\Documents and Settings\Michael
Rosenfeld\Desktop\cps_mar_2000_new.dta", clear

. clear all

. use "C:\Documents and Settings\Michael
Rosenfeld\Desktop\fifty_state_dataset.dta", clear

* Now let's look at the 50 state dataset.
```

. twoway (scatter incwage NH_White_pct, mlabel(statefip)) (lfit incwage NH_White_pct)

```
* The graph, nicely labeled with state labels, shows a bit of a decline in
average income as pct NH white increases.
```




```
. regress incwage  NH_White_pct

      Source |       SS       df       MS              Number of obs =      51
-------------+------------------------------           F(  1,    49) =    2.14
       Model |  18878316.5     1  18878316.5           Prob > F      =  0.1500
    Residual |   432407199    49  8824636.71           R-squared     =  0.0418
-------------+------------------------------           Adj R-squared =  0.0223
       Total |   451285515    50   9025710.3           Root MSE      =  2970.6

------------------------------------------------------------------------------
     incwage |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
NH_White_pct |   -3761.36   2571.649    -1.46   0.150    -8929.282    1406.562
       _cons |   22161.23   2004.928    11.05   0.000     18132.18    26190.29
------------------------------------------------------------------------------

* The slope is not significantly different from zero (so in a sense you could
say we have no slope), but let's talk about which of our 51 states is most
influential on the slope…

. dfbeta
                       _dfbeta_1: dfbeta(NH_White_pct)
(note that in Stata version 10, the command for generating the dfbetas is a
little different…)

*dfbetas can be positive or negative, we want to know which one is biggest in
absolute value…

. gen abs_dfbeta=abs( _dfbeta_1)
```

*generate absolute value

. gsort - abs_dfbeta

* sort our states from largest to smallest (the negative sign indicates largest to smallest)

. list statefip abs_dfbeta _dfbeta_1

*take a look at the graph above, and think about why DC is the most influential point.

	statefip	abs_df~a	_dfbeta_1
1.	District of Columbia	.5903278	-.5903278
2.	New Mexico	.5375599	.5375599
3.	Hawaii	.3419163	.3419163
4.	West Virginia	.2921322	-.2921322
5.	Mississippi	.2366829	.2366829
6.	Montana	.2145686	-.2145686
7.	North Dakota	.192666	-.192666
8.	New Hampshire	.1813799	.1813799
9.	Maryland	.1743481	-.1743481
10.	Minnesota	.1740437	.1740437
11.	Louisiana	.1484154	.1484154
12.	South Dakota	.1303558	-.1303558
13.	New Jersey	.1172426	-.1172426
14.	Massachusetts	.098265	.098265
15.	Wyoming	.0957266	-.0957266
16.	Kentucky	.075205	-.075205
17.	Idaho	.070259	-.070259
18.	Washington	.0665131	.0665131
19.	Wisconsin	.0656909	.0656909
20.	Texas	.0654734	.0654734
21.	Arizona	.062599	.062599
22.	Florida	.0603009	.0603009
23.	Alaska	.0506594	-.0506594
24.	Rhode Island	.0499289	.0499289
25.	Illinois	.04929	-.04929
26.	Connecticut	.0487289	.0487289
27.	Alabama	.0482474	.0482474
28.	Georgia	.0433774	.0433774
29.	Nebraska	.0429309	-.0429309
30.	Missouri	.0429018	.0429018
31.	Maine	.0362305	-.0362305
32.	Michigan	.0356351	.0356351
33.	New York	.0335865	-.0335865
34.	Virginia	.0332524	-.0332524
35.	Delaware	.0329438	-.0329438
36.	Ohio	.024228	.024228

```
 37. |           California   .0240138   -.0240138 |
 38. |       South Carolina    .022419     .022419 |
 39. |               Kansas    .021283    -.021283 |
 40. |              Vermont   .0203959   -.0203959 |
     |-------------------------------------------|
 41. |                 Utah   .0203697   -.0203697 |
 42. |             Arkansas   .0185422   -.0185422 |
 43. |             Oklahoma   .0102179   -.0102179 |
 44. |               Nevada   .0080656   -.0080656 |
 45. |               Oregon   .0072873    .0072873 |
     |-------------------------------------------|
 46. |         Pennsylvania   .0063625   -.0063625 |
 47. |             Colorado   .0056333    .0056333 |
 48. |              Indiana   .0053708   -.0053708 |
 49. |            Tennessee   .0009869    .0009869 |
 50. |       North Carolina   .0009033    .0009033 |
     |-------------------------------------------|
 51. |                 Iowa   .0008664    .0008664 |
     +-------------------------------------------+

. log close
      name:  <unnamed>
       log:  C:\Documents and Settings\Michael Rosenfeld\My Documents\newer web
pag
> es\soc_meth_proj3\fall_2010_s381_logs\class11.log
  log type:  text
 closed on:  26 Oct 2010, 15:58:36
--------------------------------------------------------------------------------
---
```