```
. xtabond2 fatal L.fatal spircons year, ///
>    gmmstyle(beertax spircons unrate perincK) ///
>    ivstyle(year) twostep robust noleveleq
Favoring space over speed. To switch, type or click on mata: mata set matafavor
>  speed, perm.
Warning: Two-step estimated covariance matrix of moments is singular.
  Using a generalized inverse to calculate optimal weighting matrix for two-ste
> p estimation.
  Difference-in-Sargan statistics may be negative.
Warning: Number of instruments may be large relative to number of observations.
Dynamic panel-data estimation, two-step difference GMM
───────────────────────────────────────────────────────────────────────────────
Group variable: state                      Number of obs      =       240
Time variable : year                       Number of groups   =        48
Number of instruments = 81                 Obs per group: min =         5
Wald chi2(3)  =     51.90                                 avg =      5.00
Prob > chi2   =     0.000                                 max =         5
```

|          | Coef.    | Corrected Std. Err. | z    | P>\|z\| | [95% Conf. Interval] |           |
|----------|----------|---------------------|------|---------|----------------------|-----------|
| fatal    |          |                     |      |         |                      |           |
| L1.      | .3205569 | .071963             | 4.45 | 0.000   | .1795121             | .4616018  |
| spircons | .2924675 | .1655214            | 1.77 | 0.077   | -.0319485            | .6168834  |
| year     | .0340283 | .0118935            | 2.86 | 0.004   | .0107175             | .0573391  |

```
Arellano-Bond test for AR(1) in first differences: z =  -3.17  Pr > z =  0.002
Arellano-Bond test for AR(2) in first differences: z =   1.24  Pr > z =  0.216

Hansen test of overid. restrictions: chi2(78)   =  47.26  Prob > chi2 =  0.998

Difference-in-Sargan tests of exogeneity of instrument subsets:
  ivstyle(year)
    Hansen test excluding group:      chi2(77)   =  46.23  Prob > chi2 =  0.998
    Difference (null H = exogenous): chi2(1)    =   1.03  Prob > chi2 =  0.311
Warning: Sargan/Hansen tests are weak when instruments are many.
───────────────────────────────────────────────────────────────────────────────


. xtabond2 fatal L.fatal spircons year, ///
>    gmmstyle(beertax spircons unrate perincK) ///
>    ivstyle(year) twostep robust
Favoring space over speed. To switch, type or click on mata: mata set matafavor
>  speed, perm.
Warning: Two-step estimated covariance matrix of moments is singular.
  Using a generalized inverse to calculate optimal weighting matrix for two-ste
> p estimation.
  Difference-in-Sargan statistics may be negative.
Warning: Number of instruments may be large relative to number of observations.
Dynamic panel-data estimation, two-step system GMM
───────────────────────────────────────────────────────────────────────────────
Group variable: state                      Number of obs      =       288
Time variable : year                       Number of groups   =        48
Number of instruments = 106                Obs per group: min =         6
Wald chi2(3)  =   1335.08                                 avg =      6.00
Prob > chi2   =     0.000                                 max =         6
```

|          | Coef.    | Corrected Std. Err. | z     | P>\|z\| | [95% Conf. Interval] |          |
|----------|----------|---------------------|-------|---------|----------------------|----------|
| fatal    |          |                     |       |         |                      |          |
| L1.      | .8670241 | .0272884            | 31.77 | 0.000   | .8135398             | .9205084 |

```
   spircons │  -.0333531   .0166273    -2.01   0.045    -.065942   -.0007643
       year │   .0136548   .0052301     2.61   0.009    .0034041    .0239056
      _cons │  -26.79022   10.38077    -2.58   0.010   -47.13615   -6.444294
```

Arellano-Bond test for AR(1) in first differences: z =  -3.71  Pr > z =  0.000
Arellano-Bond test for AR(2) in first differences: z =   1.77  Pr > z =  0.078

Hansen test of overid. restrictions: chi2(102) =  44.27  Prob > chi2 =  1.000

Difference-in-Sargan tests of exogeneity of instrument subsets:
  GMM instruments for levels
    Hansen test excluding group:      chi2(78)  =  44.68  Prob > chi2 =  0.999
    Difference (null H = exogenous): chi2(24)  =  -0.41  Prob > chi2 =  1.000
  ivstyle(year)
    Hansen test excluding group:      chi2(101) =  44.27  Prob > chi2 =  1.000
    Difference (null H = exogenous): chi2(1)   =   0.00  Prob > chi2 =  0.991
Warning: Sargan/Hansen tests are weak when instruments are many.