xtreg :

drivingscore : driving behavior scores (higher score means better performance)

Speed\_KMH : average driving speed/day

tired\_driving : hours of tired driving/day

log\_gasoline\_1 : fuel consumption/day

log\_totalmile\_1 : total mile/day

log\_t\_1 : driving hours/day

log\_acc\_1 : number of rapid acceleration/day

log\_deacc\_1 : number of rapid deceleration/day

log\_turn\_1 : number of sharp turn/day

log\_night\_driving\_1 : night driving hours/day

log\_co2\_1 : carbon emissions/day

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Random-effects GLS regression | | |  |  | Number of obs = 10,934 | |  |
| Group variable: nnnnnooooo | | |  |  | Number of groups = 63 | |  |
|  |  |  |  |  |  |  |  |
| R-sq: |  |  |  |  | Obs per group: | |  |
|  | within = 0.443 | |  |  |  | min = 4 |  |
|  | between = 0.9418 | |  |  |  | avg = 173.6 |  |
|  | overall = 0.7027 | |  |  |  | max = 372 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  | Wald chi2(9) = 9633.93 | |  |
| corr(u\_i, X) = 0 (assumed) | | |  |  | Prob > chi2 = 0.0000 | |  |
|  |  |  |  |  |  |  |  |
| -------------------------------------------------------------------------------------------------------------------------------------------------- | | | | | | | |
| drivingscore | | | Coef. | Std. Err. | z | P>|z| | [95% Conf. Interval] | |
| ----------------------------+-------------------------------------------------------------------------------------------------------------------- | | | | | | | |
| Speed\_KMH | | | -0.1080023 | 0.0232099 | -4.65 | 0 | -0.1534928 | -0.0625118 |
| tired\_driving | | | -9.411048 | 0.1872604 | -50.26 | 0 | -9.778072 | -9.044025 |
| log\_gasoline\_1 | | | -3.049196 | 1.204142 | -2.53 | 0.011 | -5.409271 | -0.6891203 |
| log\_totalmile\_1 | | | 0.7403296 | 0.2947264 | 2.51 | 0.012 | 0.1626765 | 1.317983 |
| log\_t\_1 | | | 6.990312 | 1.278686 | 5.47 | 0 | 4.484133 | 9.496491 |
| log\_acc\_1 | | | -6.493157 | 0.5554276 | -11.69 | 0 | -7.581775 | -5.404539 |
| log\_deacc\_1 | | | -10.55383 | 0.5941138 | -17.76 | 0 | -11.71827 | -9.389391 |
| log\_turn\_1 | | | -3.086018 | 0.3491912 | -8.84 | 0 | -3.77042 | -2.401616 |
| log\_night\_driving\_1 | | | -7.705229 | 0.3515566 | -21.92 | 0 | -8.394267 | -7.016191 |
| \_cons | | | 98.42557 | 1.472718 | 66.83 | 0 | 95.53909 | 101.312 |
| ----------------------------+-------------------------------------------------------------------------------------------------------------------- | | | | | | | |
| sigma\_u | | | 4.4882779 |  |  |  |  |  |
| sigma\_e | | | 13.105898 |  |  |  |  |  |
| rho | | | 0.10496964 | (fraction of variance due to u\_i) | | |  |  |
| -------------------------------------------------------------------------------------------------------------------------------------------------- | | | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Random-effects GLS regression | | |  |  | Number of obs = 10,934 | | |
| Group variable: nnnnnooooo | | |  |  | Number of groups = 63 | | |
|  |  |  |  |  |  |  |  |
| R-sq: |  |  |  |  | Obs per group: | |  |
|  | within = 0.5182 | |  |  |  | min = 4 |  |
|  | between = 0.8124 | |  |  |  | avg = 173.6 |  |
|  | overall = 0.6306 | |  |  |  | max = 372 |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  | Wald chi2(7) = 12021.42 | | |
| corr(u\_i, X) = 0 (assumed) | | |  |  | Prob > chi2 = 0.0000 | |  |
|  |  |  |  |  |  |  |  |
| ----------------------------------------------------------------------------------------------------------------------------------------------- | | | | | | | |
| log\_co2\_1 | | | Coef. | Std. Err. | z | P>|z| | [95% Conf. Interval] | |
| ------------------------------+--------------------------------------------------------------------------------------------------------------- | | | | | | | |
| Speed\_KMH | | | 0.0241609 | 0.0003819 | 63.26 | 0 | 0.0234124 | 0.0249095 |
| tired\_driving | | | 0.0862274 | 0.0038094 | 22.64 | 0 | 0.0787611 | 0.0936937 |
| log\_gasoline\_1 | | | 0 | (omitted) |  |  |  |  |
| log\_totalmile\_1 | | | 0.0221032 | 0.006353 | 3.48 | 0.001 | 0.0096514 | 0.0345549 |
| log\_acc\_1 | | | 0.167565 | 0.0116807 | 14.35 | 0 | 0.1446713 | 0.1904586 |
| log\_deacc\_1 | | | 0.2839445 | 0.0122891 | 23.11 | 0 | 0.2598582 | 0.3080308 |
| log\_turn\_1 | | | 0.0355081 | 0.0074632 | 4.76 | 0 | 0.0208805 | 0.0501357 |
| log\_night\_driving\_1 | | | 0.1045347 | 0.0072837 | 14.35 | 0 | 0.090259 | 0.1188105 |
| \_cons | | | 0.0201495 | 0.0384454 | 0.52 | 0.6 | -0.0552021 | 0.0955011 |
| ------------------------------+--------------------------------------------------------------------------------------------------------------- | | | | | | | |
| sigma\_u | | | 0.20224187 |  |  |  |  |  |
| sigma\_e | | | 0.27182694 |  |  |  |  |  |
| rho | | | 0.35631311 | (fraction of variance due to u\_i) | | |  |  |
| ---------------------------------------------------------------------------------------------------------------------------------------------- | | | | | | | |