Analysis 13 Jan 2022, 10:23:52

. by Group, sort : swilk Weight Age PCV TSP TempPE PulsePE RespPE criTime SurgTime

P<0.05 = not normally distributed

------------------------------------------------------------------------------------------------

-> Group = 1

Shapiro-Wilk W test for normal data

Variable | Obs W V z Prob>z

-------------+------------------------------------------------------

Weight | 5 0.83024 2.004 1.082 0.13969

Age | 6 0.96174 0.474 -0.966 0.83304

PCV | 6 0.98189 0.224 -1.757 0.96055

TSP | 6 0.83954 1.987 1.130 0.12922

TempPE | 6 0.90654 1.157 0.217 0.41401

PulsePE | 6 0.95179 0.597 -0.689 0.75474

RespPE | 6 0.75612 3.020 1.998 0.02285

criTime | 6 0.85774 1.762 0.909 0.18156

SurgTime | 6 0.91266 1.082 0.115 0.45415

-------------------------------------------------------------------------------------------------> Group = 2

Shapiro-Wilk W test for normal data

Variable | Obs W V z Prob>z

-------------+------------------------------------------------------

Weight | 7 0.88830 1.467 0.625 0.26590

Age | 7 0.94697 0.696 -0.530 0.70207

PCV | 7 0.83383 2.183 1.360 0.08697

TSP | 7 0.97127 0.377 -1.325 0.90742

TempPE | 7 0.96283 0.488 -1.005 0.84261

PulsePE | 7 0.98824 0.154 -2.308 0.98951

RespPE | 7 0.91110 1.168 0.244 0.40357

criTime | 7 0.92770 0.950 -0.079 0.53150

SurgTime | 7 0.97934 0.271 -1.709 0.95626

.

. /\* Weight and ResPE had outliers affecting normality\* After removal, data is normally distributed/

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-> ttest Weight, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 5 146.62 3.363391 7.520771 137.2817 155.9583

2 | 7 160.3714 5.007219 13.24786 148.1192 172.6237

---------+--------------------------------------------------------------------

combined | 12 154.6417 3.724234 12.90112 146.4447 162.8387

---------+--------------------------------------------------------------------

diff | -13.75143 6.622772 -28.50788 1.005027

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = -2.0764

Ho: diff = 0 degrees of freedom = 10

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.0323 Pr(|T| > |t|) = 0.0646 Pr(T > t) = 0.9677

-> ttest Age, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 11.33333 .5577734 1.36626 9.899531 12.76714

2 | 7 10.14286 1.163504 3.078342 7.295865 12.98985

---------+--------------------------------------------------------------------

combined | 13 10.69231 .6735346 2.428464 9.224802 12.15981

---------+--------------------------------------------------------------------

diff | 1.190476 1.364735 -1.813286 4.194238

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = 0.8723

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.7992 Pr(|T| > |t|) = 0.4017 Pr(T > t) = 0.2008

-> ttest PCV, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 33 1.527525 3.741657 29.07337 36.92663

2 | 7 33.42857 1.493751 3.952094 29.77349 37.08365

---------+--------------------------------------------------------------------

combined | 13 33.23077 1.026282 3.700312 30.99469 35.46685

---------+--------------------------------------------------------------------

diff | -.4285714 2.146318 -5.152585 4.295442

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = -0.1997

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.4227 Pr(|T| > |t|) = 0.8454 Pr(T > t) = 0.5773

-> ttest TSP, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 7.183333 .2993512 .7332576 6.413827 7.95284

2 | 7 6.857143 .2045403 .5411628 6.356651 7.357635

---------+--------------------------------------------------------------------

combined | 13 7.007692 .1752147 .6317456 6.625932 7.389452

---------+--------------------------------------------------------------------

diff | .3261905 .3536795 -.4522528 1.104634

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = 0.9223

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.8119 Pr(|T| > |t|) = 0.3762 Pr(T > t) = 0.1881

-> ttest TempPE, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 98.55 .5031567 1.232477 97.25659 99.84341

2 | 7 98.01429 .4636442 1.226687 96.87979 99.14878

---------+--------------------------------------------------------------------

combined | 13 98.26154 .3354175 1.209365 97.53073 98.99235

---------+--------------------------------------------------------------------

diff | .5357143 .6839319 -.9696097 2.041038

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = 0.7833

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.7750 Pr(|T| > |t|) = 0.4500 Pr(T > t) = 0.2250

-> ttest PulsePE, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 43 2.516611 6.164414 36.53084 49.46916

2 | 7 44.14286 1.957021 5.177791 39.3542 48.93152

---------+--------------------------------------------------------------------

combined | 13 43.61538 1.508686 5.439646 40.32824 46.90253

---------+--------------------------------------------------------------------

diff | -1.142857 3.14207 -8.058506 5.772792

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = -0.3637

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.3615 Pr(|T| > |t|) = 0.7230 Pr(T > t) = 0.6385

-> ttest RespPE, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 22 2 4.898979 16.85884 27.14116

2 | 7 23.42857 4.224966 11.17821 13.09045 33.76669

---------+--------------------------------------------------------------------

combined | 13 22.76923 2.370096 8.545504 17.60523 27.93323

---------+--------------------------------------------------------------------

diff | -1.428571 4.946967 -12.31677 9.459629

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = -0.2888

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.3891 Pr(|T| > |t|) = 0.7781 Pr(T > t) = 0.6109

-> ttest criTime, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 67.16667 2.891559 7.082843 59.73368 74.59965

2 | 7 64 2.627691 6.952218 57.57027 70.42973

---------+--------------------------------------------------------------------

combined | 13 65.46154 1.916913 6.911529 61.28494 69.63813

---------+--------------------------------------------------------------------

diff | 3.166667 3.901058 -5.419504 11.75284

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = 0.8117

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.7829 Pr(|T| > |t|) = 0.4342 Pr(T > t) = 0.2171

-> ttest SurgTime, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 6 52.16667 2.880008 7.054549 44.76337 59.56996

2 | 7 48.14286 3.541782 9.370674 39.47643 56.80928

---------+--------------------------------------------------------------------

combined | 13 50 2.303843 8.306624 44.98036 55.01964

---------+--------------------------------------------------------------------

diff | 4.02381 4.671915 -6.259006 14.30662

------------------------------------------------------------------------------

diff = mean(1) - mean(2) t = 0.8613

Ho: diff = 0 degrees of freedom = 11

Ha: diff < 0 Ha: diff != 0 Ha: diff > 0

Pr(T < t) = 0.7963 Pr(|T| > |t|) = 0.4075 Pr(T > t) = 0.2037

. ttest Weight, by(Group)

Two-sample t test with equal variances

------------------------------------------------------------------------------

Group | Obs Mean Std. Err. Std. Dev. [95% Conf. Interval]

---------+--------------------------------------------------------------------

1 | 5 146.62 3.363391 7.520771 137.2817 155.9583

2 | 7 160.3714 5.007219 13.24786 148.1192 172.6237

---------+--------------------------------------------------------------------

combined | 12 154.6417 3.724234 12.90112 146.4447 162.8387

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