**SAS Syntax for Standardized Scores**

**/\* syntax for z-score\*/**

**proc standard data=**SATS **mean=**0 **std=**1

**out =** new**;**

**run;**

**/\*syntax for t-score\*/**

**proc standard data =** SATS **mean =** 50 **sd =** 10

**out =** new2**;**

**run;**

**/\* syntax for stanines; first obtain frequency distribution \*/**

**proc freq data =** SATS**;**

**tables** value**;**

**run;**

**/\* data step syntax to create stanines \*/**

**data** stanine**; set** SATS**;**

**if** value **le** 28 **then** stanine **=** 1**;**

**else if** 29 **le** value **le** 33 **then** stanine **=** 2**;**

**else if** 34 **le** value **le** 38 **then** stanine **=** 3**;**

**else if** 39 **le** value **le** 42 **then** stanine **=** 4**;**

**else if** 43 **le** value **le** 45 **then** stanine **=** 5**;**

**else if** 46 **le** value **le** 49 **then** stanine **=** 6**;**

**else if** 50 **le** value **le** 52 **then** stanine **=** 7**;**

**else if** 53 **le** value **le** 59 **then** stanine **=** 8**;**

**else if** value **ge** 60 **then** stanine **=** 9**;**

**run;**

**/\* creating *z*- and T-scores and stanines using proc SQL \*/**

**/\* z- and T-scores only \*/**

**proc sql;**

**create table** new **as select \*,**

**(**value-**mean**(value))/**std**(value) **as** zscore,

((value-**mean**(value))/**std**(value))\*10 +50 **as** tscore

**from** SATS;

**quit;**

**/\* z- and T-scores and stanines \*/**

**proc sql;**

**create table** new **as select \*,**

**(**value**-mean(**value**))/std(**value**) as** zscore**,**

**((**value**-mean(**value**))/std(**value**))\***10 **+**50 **as** tscore**,**

**case**

**when** value **le** 28 **then** 1

**when** 29 **le** value **le** 33 **then** 2

**when** 34 **le** value **le** 38 **then** 3

**when** 39 **le** value **le** 42 **then** 4

**when** 43 **le** value **le** 45 **then** 5

**when** 46 **le** value **le** 49 **then** 6

**when** 50 **le** value **le** 52 **then** 7

**when 53 le** value **le** 59 **then** 8

**when** value **ge** 60 **then** 9

**else** 0

**end**

**as** stanine

**from** SATS**;**

**quit;**

***/\* Obtaining percentile points \*/***

**proc univariate data=**SATS **noprint;**

**var** value**;**

**output out=**Pctls **pctlpts =** 10 20 30 40 50 60 70 80 90

**pctlpre =** Value

**pctlname =** pct10 pct20 pct30 pct40 pct50 pct60 pct70 pct80 pct90**;**

**run;**