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/* */
/*Labeling of all the variables*/
proc format;
  value Resolution
    1 = 'Resolved'
    2 = 'Escalated'
    3 = 'Disconnect';
  value Case_Type
    1 = 'Account Related'
    2 = 'Affiliate Related'
    3 = 'Disconnect'
    4 = 'Billing'
    5 = 'Cancellations and Refunds'
    6 = 'Miscellaneous'
    7 = 'Programming'
    8 = 'Technical';
  value Contact_Type
    1 = 'Email'
    2 = 'Phone';
run;

/* seperate dataset for esclations */
data esonly;
set mynewlib.mis480cs;
if Resolution = 1 then delete;
if Resolution = 3 then delete;
run;

/* seperate dataset for Tier 1 resolved*/
data resonly;
set mynewlib.mis480cs;
if Resolution = 2 then delete;
if Resolution = 3 then delete;
run;

/* Summary stats*/
proc means data=MYNEWLIB.MIS480CS chartype mean std min max n vardef=df;
  format Resolution Resolution. Case_Type Case_Type. Contact_Type Contact_Type.;
  var Resolution;
  class Case_Type Contact_Type;
run;

/* histograms of case data */
proc univariate data=MYNEWLIB.MIS480CS vardef=df noprint;
  format Resolution Resolution. Case_Type Case_Type. Contact_Type Contact_Type.;
  var Resolution;
  class Case_Type Contact_Type;
  histogram Resolution / barlabel=percent endpoints=(1 to 4 by 1);
run;

/* Pie Chart for all case types */
title 'All Resolutions';
proc sgpie data=mynewlib.mis480cs;
  format Case_Type Case_Type.;
  pie Case_Type / DATALABELLOC=inside DATALABELDISPLAY=(CATEGORY PERCENT) dataskin=pressed;
run;

/* Pie Chart for cases resolved by Tier 1 */
title 'Handled by Tier 1';
proc sgpie data=work.resonly;
  format Case_Type Case_Type.;
  pie Case_Type / DATALABELLOC=inside DATALABELDISPLAY=(CATEGORY PERCENT) dataskin=pressed;
run;

/* Pie Chart for cases escalated */
title 'Escalated';
proc sgpie data=work.esonly;

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format Case_Type Case_Type.;
pie Case_Type / DATALABELLOC=inside DATALABELDISPLAY=(CATEGORY PERCENT) dataskin=preserved;
run;

title "Precent of Case Types and Escalation Rates";
proc sgplot data=MYNEWLIB.MIS480CS;
  format Resolution Resolution. Case_Type Case_Type. Contact_Type Contact_Type.;
  xaxis label='Case Type';
  vbar Case_Type / group=Resolution groupdisplay=stack datalabel stat=percent SEGLABEL dataskin=preserved;
  yaxis grid;
run;

title "Precent of Case Types and Escalation Rates";
proc sgplot data=MYNEWLIB.MIS480CS;
  format Resolution Resolution. Case_Type Case_Type. Contact_Type Contact_Type.;
  xaxis label='Contact Type';
  vbar Contact_Type / group=Resolution groupdisplay=stack datalabel stat=percent SEGLABEL dataskin=preserved;
  yaxis grid;
run;
```