Visualization of Student Data

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1 Bar Chart

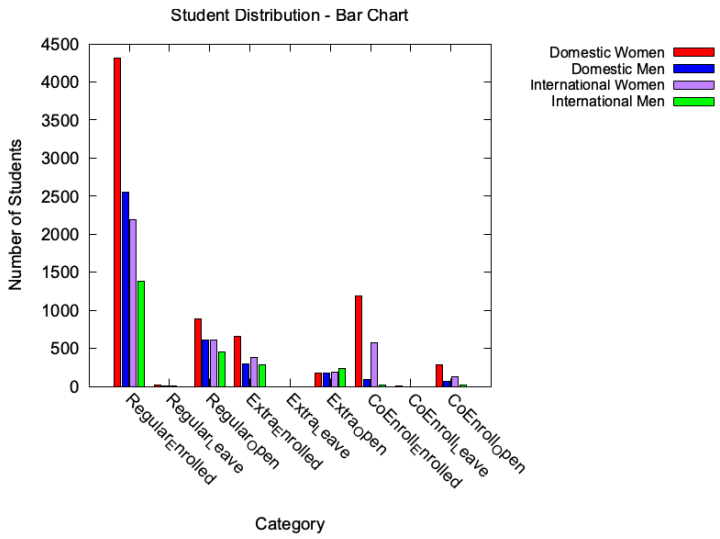

Figure 1: Student Distribution - Bar Chart

The following Gnuplot script was used to generate the bar chart:

```
set terminal pngcairo enhanced font "Arial,14" size
    800,600
set output 'graph1.png'

set title "Student␣Distribution␣-␣Bar␣Chart"
set xlabel "Category"
set ylabel "Number␣of␣Students"
set xtics rotate by -45
set key outside top right font "Arial,12"

set style data histogram
set style histogram cluster gap 1
set style fill solid border -1
set boxwidth 0.8
```

```
plot 'student_data.dat' using 2:xtic(1) title "Domestic␣
    Women" lt rgb "red", \
'' using 3 title "Domestic␣Men" lt rgb "blue", \
'' using 4 title "International␣Women" lt rgb "purple", \
'' using 5 title "International␣Men" lt rgb "green"
```

2 Line Graph

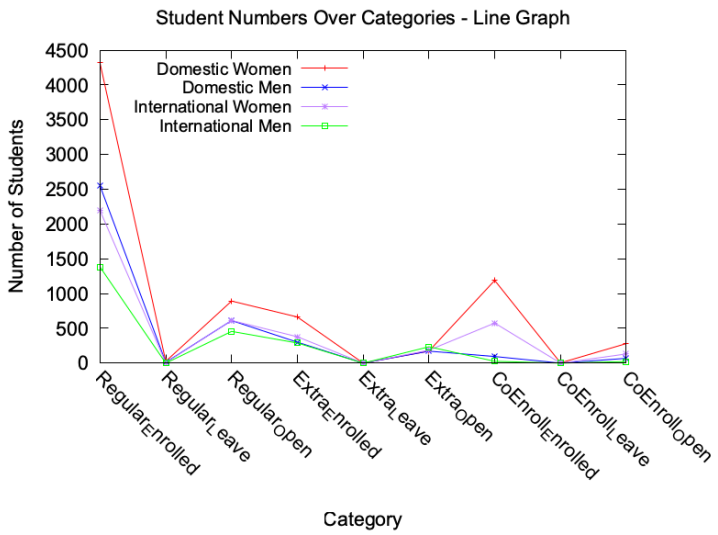

Figure 2: Student Numbers Over Categories - Line Graph

The following Gnuplot script was used to generate the line graph:

```
set terminal pngcairo enhanced font "Arial,16" size
    800,600
set output 'graph2.png'

set title "Student␣Numbers␣Over␣Categories␣-␣Line␣Graph"
set xlabel "Category"
set ylabel "Number␣of␣Students"
set xtics rotate by -45
set key left top font "Arial,14"

plot 'student_data.dat' using 2:xtic(1) with linespoints
    title "Domestic␣Women" lt rgb "red", \
'' using 3 with linespoints title "Domestic␣Men" lt rgb
    "blue", \
'' using 4 with linespoints title "International␣Women"
    lt rgb "purple", \
'' using 5 with linespoints title "International␣Men" lt
    rgb "green"
```

3 Point Plot

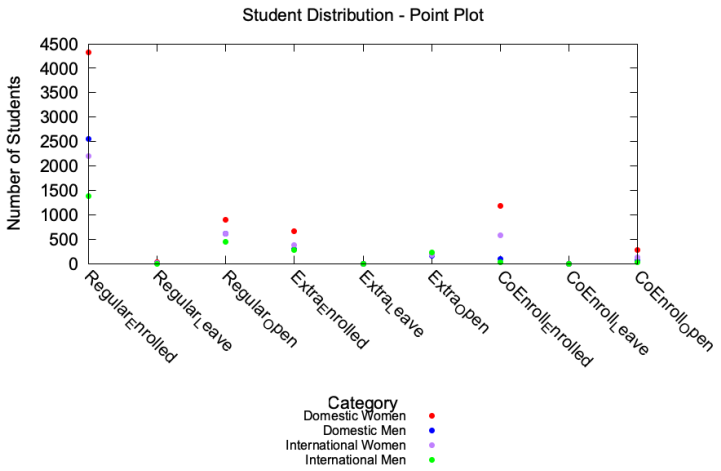

Figure 3: Student Distribution - Point Plot

The following Gnuplot script was used to generate the point plot:

```
set terminal pngcairo enhanced font "Arial,16" size
    900,600
set output 'graph3.png'

set title "Student␣Distribution␣-␣Point␣Plot"
set xlabel "Category"
set ylabel "Number␣of␣Students"
set xtics rotate by -45
set key outside bottom center font "Arial,12"

plot 'student_data.dat' using 2:xtic(1) with points pt 7
    lc rgb "red" title "Domestic␣Women", \
'' using 3 with points pt 7 lc rgb "blue" title "Domestic␣
    Men", \
'' using 4 with points pt 7 lc rgb "purple" title
    "International␣Women", \
'' using 5 with points pt 7 lc rgb "green" title
    "International␣Men"
```

4 Stacked Bar Chart

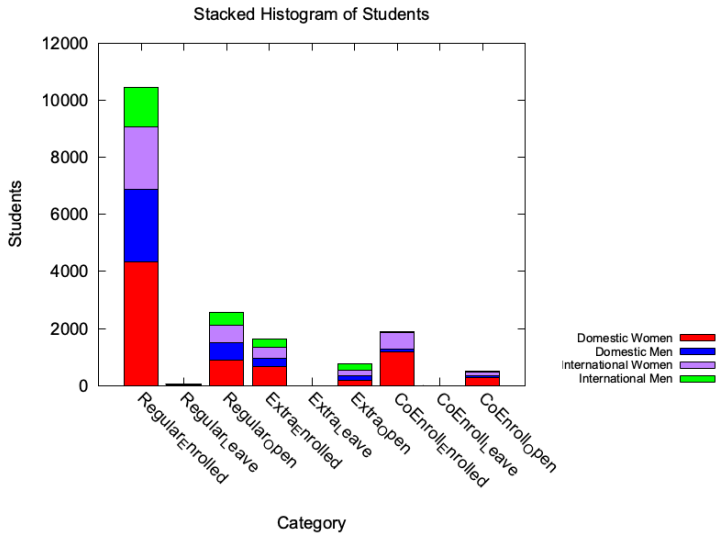

Figure 4: Stacked Histogram of Students

The following Gnuplot script was used to generate the stacked histogram:

```
set terminal pngcairo enhanced font "Arial,14" size
    800,600
set output 'graph4.png'

set title "Stacked␣Histogram␣of␣Students"
set xlabel "Category"
set ylabel "Students"
set xtics rotate by -45
set key outside bottom right font "Arial,10"

set style data histograms
set style histogram rowstacked
set style fill solid border -1
set boxwidth 0.8

plot 'student_data.dat' using 2:xtic(1) title "Domestic␣
    Women" lt rgb "red", \
'' using 3 title "Domestic␣Men" lt rgb "blue", \
'' using 4 title "International␣Women" lt rgb "purple", \
'' using 5 title "International␣Men" lt rgb "green"
```