The Logistic Curve Is A Theoretical Construct

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2023-10-16

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1 The Logistic Curve

```
library(Statamarkdown)
```

Stata found at C:/Program Files/Stata18/StataSE-64.exe

The 'stata' engine is ready to use.

```
twoway ///
(function y = exp(x)/(1 + exp(x)), range(-10 10) lwidth(thick) lpattern(dash)), ///
title("The Logistic Curve") ///
ytitle("Probablity") ///
scheme(stcolor)

graph export logistic.png, width(2000) replace
```

file logistic.png saved as PNG format

2 The Logistic Curve is a *Theoretical Construct*

```
twoway ///
(function y = exp(x)/(1 + exp(x)), range(-10 10) lwidth(thick) lpattern(dash)) ///
(function y = exp(x)/(1 + exp(x)), range(2 5) lwidth(vvthick)) ///
(function y = exp(x)/(1 + exp(x)), range(-1 1) lwidth(vvthick)) ///
(function y = exp(x)/(1 + exp(x)), range(-3 -2) lwidth(vvthick) lcolor(orange)), ///
```
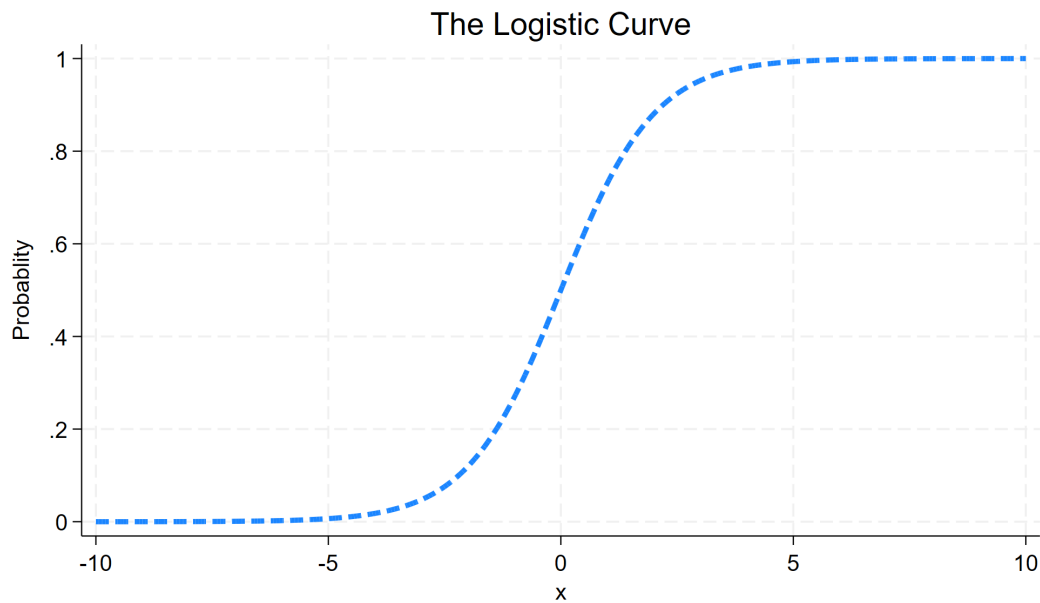
Figure 1: The Logistic Curve

```stata
title("Any Given Data Set") ///
ytitle("Probablity") ///
subtitle("Usually Maps To Only Part Of The Full Logistic Curve") ///
legend(order(1 "full logistic curve" 2 "sample data set" 3 "sample data set" 4 "sample data set")
scheme(stcolor)

graph export logistic2.png, width(2000) replace
```
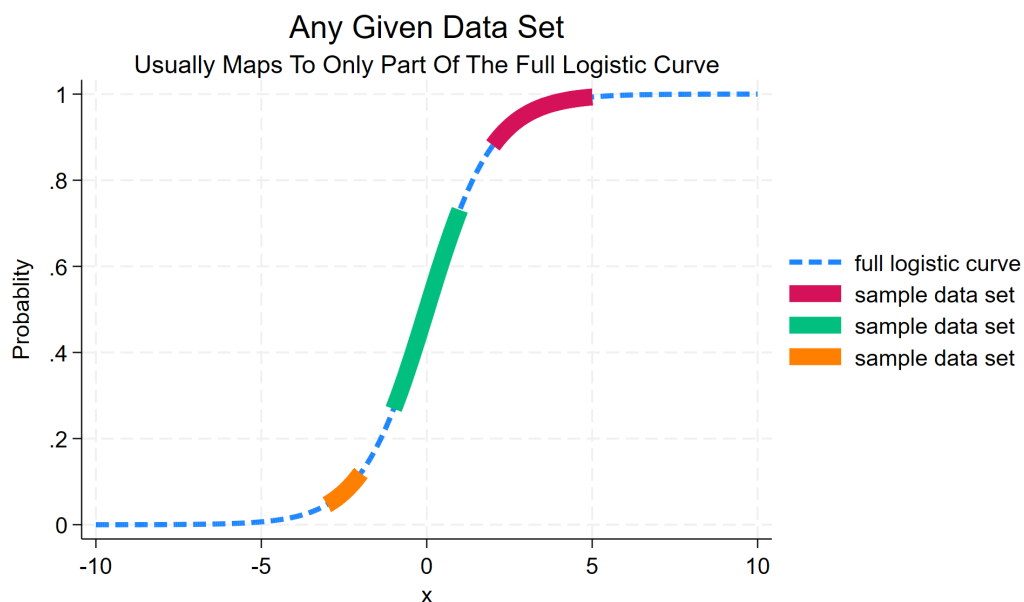
```
file logistic2.png saved as PNG format
```


Figure 2: The Logistic Curve Is A Theoretical Construct