

## Choosing the Best Projector for You

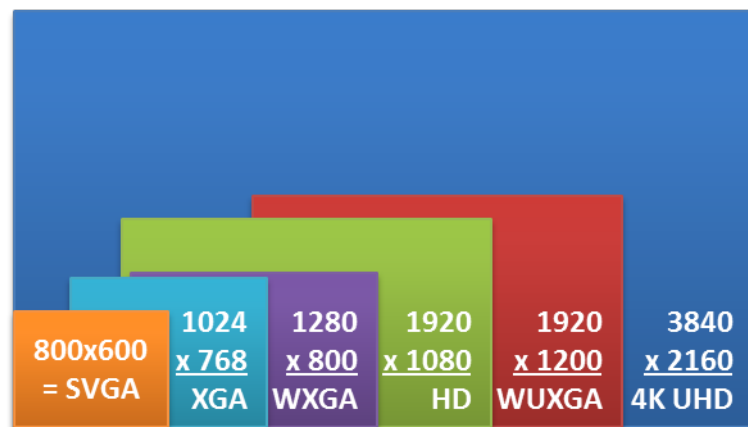
There are many factors that should be considered in choosing a projector, but two commonly misunderstood factors are display resolution and aspect ratio. These will be briefly discussed.

### Display Resolution

Projectors have a fixed number of pixels for displaying information, so while the screen size will vary with distance and focus, the number of pixels displayed will not. Choosing a projector with a display resolution that will most commonly be used will usually provide the most desirable results.

If the display information is a different size than the projector's native resolution, it may be able to approximate the image by reducing or enlarging it. If the projector's native display resolution is higher than the display information, most projectors can "letter box" the displayed information with black bars on the sides of the projected image.

Information can be displayed in many formats but there are common display standards, such as those shown at right. The numbers represent the number of display pixels in the horizontal axis and the vertical axis. The boxes represent the relative size of the displays with equal size pixels.



Video today is commonly displayed in high definition (or HD) which is usually 1920 x 1080 pixels. 4K UHD is an

emerging standard that displays four times as much information as HD. Resolution or clarity is often a casualty of displaying a low resolution image on a higher resolution display, but this is less apparent on video than on static images such as a spreadsheet or slide presentation.

### Aspect Ratio

Aspect ratio is the ratio of horizontal pixels divided by the vertical pixels. For a SVGA display, the aspect ratio is 4 x 3 (or 4:3). An HD or UHD display has a ratio is 16 x 9 (or 16:9). This difference can lead to a "letter boxed" image, as the graphic illustrates or to a stretched image.

There are many other important factors in choosing a projector, such as brightness and quality, but these two, display resolution and aspect ratio are paramount.

