

# Effective Use of Charts and Graphics

## Introduction

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| <b>Purpose</b>  | This tool provides guidelines and tips on how to effectively use various charts and graphs to communicate research findings.  |
| <b>Format</b>   | This tool is an Introduction to the set of tools that provide guidance on which chart types are best suited for which types of data and for which purposes, shows examples of preferred practices and practical tips for each chart type, and provides cautions and examples of misuse and poor use of each chart type and how to make corrections. |
| <b>Audience</b> | This tool is designed primarily for researchers from the Model Systems that are funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). The tool can be adapted by other NIDILRR-funded grantees and the general public.   |

The contents of this tool were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90DP0012-01-00). The contents of this fact sheet do not necessarily represent the policy of Department of Health and Human Services, and you should not assume endorsement by the Federal Government.

# Determine the Purpose for Your Charts

## Research Graphics vs Presentation Graphics

- ▶ Research graphics tend to be more detailed and are intended to answer a research question and document a conclusion.
- ▶ Presentation graphics are generally less-detail oriented and are intended to effectively communicate the results of the research, often to a larger audience.

The types of charts (and the detail therein) are often different for research vs presentation graphics.

# Determine the Audience for Your Charts

## Needs of Different Audiences

- ▶ To the extent possible, determine what your intended audience wants and needs in terms of chart detail, chart volume, and technical information.
- ▶ Determine how your audience intends to use the graphic information that you would provide.

## Are there multiple sub-audiences who would consume your chart information?

- ▶ Audiences of professional subject matter experts likely would want more technical detail.
- ▶ Managers and executives would want charts that convey overall conclusions and suggested directions and next steps.
- ▶ The general public, consumer advocates, and politicians would have still other priorities, for whom other chart options may prove most effective.

If you are the researcher, remember that probably no one cares as much about your research charts as you do. Try to adapt your chart enthusiasm to the actual needs of your intended audiences.

# Tips and Preferred Practices

- ▶ The tips and preferred practices in this toolkit are suggestions, not unalterable rules.
- ▶ Examples can and do arise where a preferred practice should be altered for purposes of clarity or intentional emphasis.
- ▶ In other situations, you may be producing chart content for a client with specific chart preferences, or you may be preparing graphic contents under specific publishing guidelines.
- ▶ But, in general, the principles, tips, and preferred practices in this toolkit (as well as the cautions against misuse or poor use) should provide helpful guidance for most charting activities.

# Example Data Used in the Charts

- ▶ For the majority of the charts in this toolkit, Health and Social-related example data was used.
- ▶ The concepts in this tool could equally apply to data from Education, Business, Information Technology, or other domains as well.
- ▶ The data sources for most of the chart examples in this toolkit come from published reports generally retrievable from the Internet. The sponsoring entity for the data is briefly noted on most charts.
- ▶ For some example charts, mock data was created to illustrate the concept and such mock examples should not be construed as real data.