# Tip Sheet on Data Types and Transformation

## Types of Data

* Quantitative: measured in quantities as numbers
	+ Discrete or categorical, e.g.,
		- Gender
		- Eligibility reason
		- Exit reason
	+ Continuous, e.g.,
		- Age at enrollment
		- Income
		- Hours of service
* Qualitative: not numerical in nature, e.g., from:
	+ Interviews
	+ Focus groups
	+ Document review
	+ Observation

## Data Transformation

* Convert continuous into discrete
	+ Continuous (measured on a continuum or scale):
		- Age as 1,2,3,4,5,6,7,8,9,10,11,12,13,14, . . . . . . . . . . . . . . . . 36 months
	+ Discrete:
		- Categories of age, e.g., 0-12 months, 13-24 months, 25-36 months
* Convert large number of categories into a smaller number
	+ Collapse a larger number of race/ethnicity categories or exit reasons into the federal/618 categories
* Combine two or more variables to create another variable
	+ Combine family income and family size to create a variable for Federal Poverty Level

It’s always helpful to examine the distribution of the data *first* to help make decisions on data transformations.