Social Math Worksheet
Oregon Pop-Up Institute
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Social Math Exercise

How should you handle large numbers or statistics when communicating about your issue? Consider using "social math." You may be working with numbers of people involved, rates of occurrence of a relevant phenomenon, amounts of money needed to address the problem, raw distances, or any other indicators of the breadth or depth of your issue.

To convert your numbers or statistics to a social math equivalent, use commonly understood "unit/s" (see examples on reverse). To do so, you may choose to break down numbers by time, break down numbers by place, provide comparisons with familiar things, provide ironic comparisons, personalize numbers, etc. Be sure to keep track of how each conversion was derived and the original reference source.

Some hints:

- Be certain that you are not simply providing additional "nifty" statistics but are in fact *converting* existing data into readily identifiable, easily intelligible, almost "visual" equivalents. For example, "one in five" is better than a large number, but saying how many classrooms filled with children that same figure would equate to creates a lasting image.
- Social math equivalents should be intuitive and easily digestible; do avoid complexity. In other words, your equivalents should be direct and without twists and turns. Some examples that work are volume to volume, kid-related data to kid-related "things" or experiences, etc.
- Watch for logical "gaps" in the associations you make, and be sure to close each!
- Changing to common "units" is better grasped than comparisons of things with which people may not be familiar. In other words, this is the difference between making a comparison to something virtually everyone has experience with (e.g., school buses, local venues, distances to big cities or landmarks), as opposed to the costs of specialty items with which fewer people interact.
- Remember: thinking both "visual" and "visceral" can be helpful. You want these comparisons to strike a resonant chord and remain in your audiences' memories.

Original Data	**Focus of Data** (Costs, number of people, specific age group, etc.)	**Related "Units"**	**Social Math Equivalent**

Examples of Common Conversion "Units"*

- Population of Portland = 639,863; New York = 8.5 million; Charlottesville, VA = 48,019; John Day = 1,674
- Distance from Earth to Moon = 238,900 miles
- Size of Oregon = 290 miles long x 382 miles wide
- Earth's Circumference = 24,901 miles
- Dollar bill = 6.14 inches in length
- Distance NYC to Portland = 2,894 miles
- Standard School Bus = 75 seats
- National average elementary school students/classroom = 21.4
- Rose Bowl = 92,542 seats; Yankee Stadium= 54,251; Fenway Park = 37,731
- Boeing 747-400 = 416 seats
- Bathtub = 60 gallons
- Price gallon of milk = $2.92
- Price loaf of white bread = $2.50
- Price gallon of gas = $2.91
- Portland to Salem = 47 miles
- Others, as appropriate, to your problem, location, and the arguments you are making.

**Prices and census data do change; be sure to check current values.*