What is Six Sigma

<table>
<thead>
<tr>
<th>Six Sigma Level</th>
<th>Defects Per Million Opportunities (DPMO)</th>
<th>Cost of Poor Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>308,537</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>3</td>
<td>66,807</td>
<td>25-40% of Sales</td>
</tr>
<tr>
<td>4</td>
<td>6,210</td>
<td>15-25% of Sales</td>
</tr>
<tr>
<td>5</td>
<td>233</td>
<td>5-15% of Sales</td>
</tr>
<tr>
<td>6</td>
<td>3.4 (World Class)</td>
<td>&lt;1% of Sales</td>
</tr>
</tbody>
</table>

Each sigma shift provides a 10% net income improvement.

### Practical Meaning of Process Performance

#### 99% Good (or 3.8σ)
- **Postal System**: 20,000 Lost Articles of Mail / Hr
- **Airline System**: 2 Short/Long Landings / Day
- **Medical Profession**: 200,000 Wrong Prescriptions / Yr, 5,000 Surgical Errors / Wk
- **Municipal Utilities**: Contaminated Water 15 Min / Day
- **Restaurant Bills**: 83 Incorrect Checks / Lifetime

#### 99.99966% Good (or 6σ)
- **Postal System**: 7 Lost Articles/Hr
- **Airline System**: 1 Short/Long Landing / 5 Years
- **Medical Profession**: 68 Wrong Prescriptions / Yr, 1.7 Surgical Errors / Wk
- **Municipal Utilities**: Contaminated Water 1 Min / 7 Mo.
- **Restaurant Bills**: <1 Incorrect Check / Lifetime

3σ to 6σ = a 20,000 times improvement

A true Quantum Leap