Table S1. Equation about model-based weight probability scores for LMA sizes

| Age   | Size | Gender | Formula |
|-------|------|--------|---------|
| Adults| 3    | Male   | $e^{1.497-0.312w} + \frac{1}{1 + e^{14.977-0.312w} + e^{10.46-0.153w} + e^{-16.184+0.123w}}$ |
|       | 3    | Female | $e^{0.456-0.235w} + \frac{1}{1 + e^{8.46-0.235w} + e^{-11.053+0.189w}}$ |
|       | 4    | Male   | $e^{10.46-0.153w} + \frac{1}{1 + e^{14.977-0.312w} + e^{10.46-0.153w} + e^{-16.184+0.123w}}$ |
|       | 4    | Female | $\frac{1}{1 + e^{10.46-0.153w} + e^{-15.053+0.189w}}$ |
|       | 5    | Male   | $\frac{1}{1 + e^{14.977-0.312w} + e^{10.46-0.153w} + e^{-16.184+0.123w}}$ |
|       | 5    | Female | $e^{-15.053+0.189w} + \frac{1}{1 + e^{14.977-0.312w} + e^{15.053+0.189w}}$ |
|       | 6    | Male   | $e^{-10.184+0.123w} + \frac{1}{1 + e^{14.977-0.312w} + e^{0.46-0.153w} + e^{-16.184+0.123w}}$ |
|       | 6    | Female | $\frac{1}{1 + e^{14.977-0.312w} + e^{10.46-0.153w} + e^{-16.184+0.123w}}$ |
| Adolescents| 2.5 | Male   | $e^{24.597-0.688w} + \frac{1}{1 + e^{24.597-0.688w} + e^{12.948-0.267w} + e^{-10.291+0.139w}}$ |
|       | 2.5 | Female | $e^{24.597-0.688w} + \frac{1}{1 + e^{24.597-0.688w} + e^{12.948-0.267w} + e^{-10.291+0.139w}}$ |
|       | 3    | Male   | $e^{12.948-0.267w} + \frac{1}{1 + e^{24.597-0.688w} + e^{12.948-0.267w} + e^{-10.291+0.139w}}$ |
|       | 3    | Female | $\frac{1}{1 + e^{12.948-0.267w} + e^{10.291-0.139w}}$ |
|       | 4    | Male   | $\frac{1}{1 + e^{24.597-0.688w} + e^{12.948-0.267w} + e^{-10.291+0.139w}}$ |
|       | 4    | Female | $\frac{1}{1 + e^{12.948-0.267w} + e^{10.291-0.139w}}$ |
|       | 5    | Male   | $e^{-10.291+0.139w} + \frac{1}{1 + e^{24.597-0.688w} + e^{12.948-0.267w} + e^{-10.291+0.139w}}$ |
|       | 5    | Female | $\frac{1}{1 + e^{24.597-0.688w} + e^{12.948-0.267w} + e^{-10.291+0.139w}}$ |
| Children| 1.5 | Male   | $e^{7.782-0.803w} + \frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |
|       | 1.5 | Female | $\frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |
|       | 2    | Male   | $\frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |
|       | 2    | Female | $\frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |
|       | 2.5 | Male   | $e^{-12.193+0.618w} + \frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |
|       | 2.5 | Female | $\frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |
|       | 3    | Male   | $e^{-12.193+0.618w} + \frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |
|       | 3    | Female | $\frac{1}{1 + e^{7.782-0.803w} + e^{-12.193+0.618w} + e^{-23.526+0.981w}}$ |

"w" represents weight in the above table. We used "mlogit" in STATA software to calculate the coefficient for the multi-nominal logistic regression model.