The Exclusion-Adjusted Cohort Graduation Indicator: A Mathematical Representation

The exclusion-adjusted cohort graduation indicator (EACGI) is a function of school *S*, cohort year *Y*, and graduation year Y_g. It accounts for in-transfers, out-transfers, retentions, and other exclusions. The mathematical representation is:

$$\underset{(S,Y_c,Y_g)}{\text{EACGI}} = \frac{\begin{array}{l}\text{Students entering 9th grade for the first time in } Y_c \textit{ and} \text{ graduating by } Y_g \\ + \text{ Students transferring into 10th grade in } Y_c+1 \textit{ and} \text{ graduating by } Y_g \\ + \text{ Students transferring into 11th grade in } Y_c+2 \textit{ and} \text{ graduating by } Y_g \\ + \text{ Students transferring into 12th grade in } Y_c+3 \textit{ and} \text{ graduating by } Y_g\end{array}}{\begin{array}{l}(\text{Students entering 9th grade for the first time in } Y_c)-(\text{those excluded in } Y_c,\ldots,Y_g) \\ + (\text{Students transferring into 10th grade in } Y_c+1)-(\text{those excluded in } Y_c+1,\ldots,Y_g) \\ + (\text{Students transferring into 11th grade in } Y_c+2)-(\text{those excluded in } Y_c+2,\ldots,Y_g) \\ + (\text{Students transferring into 12th grade in } Y_c+3)-(\text{those excluded in } Y_c+3,\ldots,Y_g)\end{array}}.$$