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Zero Attrition Constitutes Distant Prospect Despite Improvement

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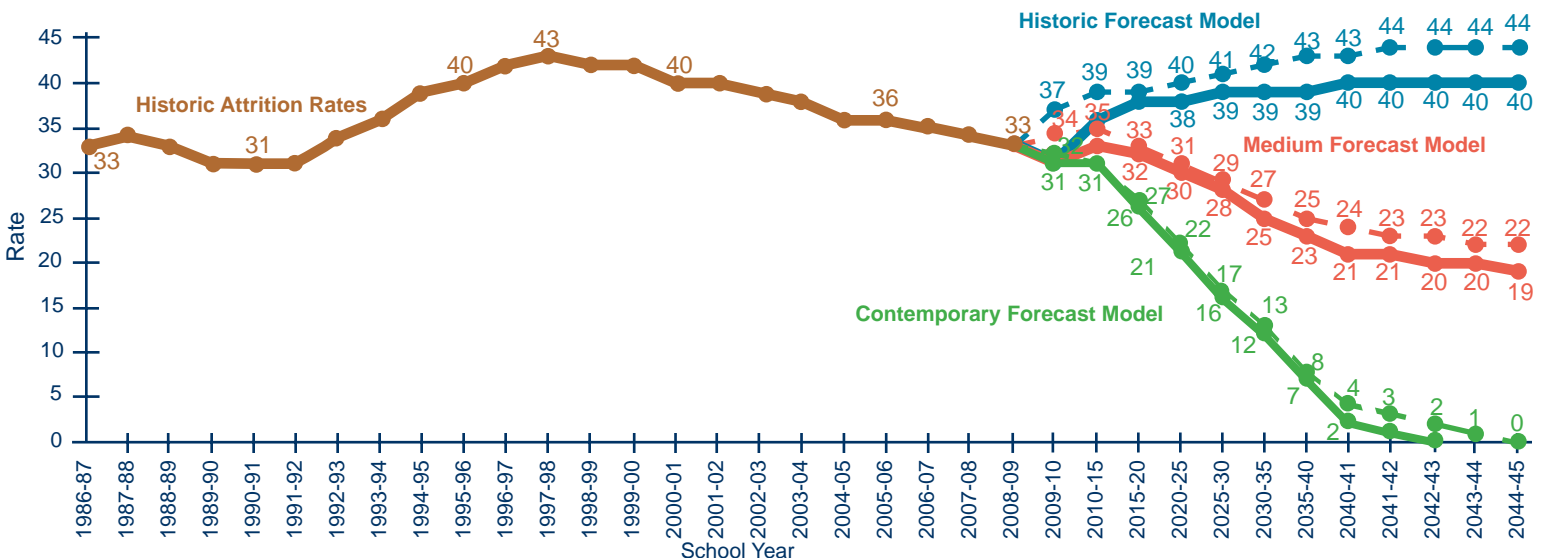
In a previous analysis, an attrition rate between 32 percent and 37 percent for school year 2008-09 was forecasted (Montes, 2008). The actual attrition rate was 31 percent for 2008-09, according to the IDRA new attrition study just released (Johnson, 2009). When the new figure was added to the forecasting models, it shifted the values slightly downward. The new prediction moved the zero attrition date to year 2042, from the 2044 estimated last year. However the overall picture did not change significantly, as we will show in this analysis.

Last year, we used three lineal regression models to estimate when the attrition rate would diminish to negligible values. These models are depicted by the dotted lines in the figure below. The first model took into account all known historic values, from year 1986 to 2008, as determined by the annual IDRA longitudinal attrition studies (Johnson, 2008). This model assumed that each past rate had equal weight over future rates.

For this Historic Forecast Model, all future attrition values within the model horizon would be higher than the current value, since the model constructed the current downward trend as a cyclical bottom within the long-term upward progression of the curve. In this formulation, the predicted attrition rate was 37 percent.

The second model assumed that the current downward trend is a more reasonable predictor of future attrition values. The fact that these are chronologically the most recent values supports this assumption. The recent past is usually more relevant to the present than the distant past. Consequently, this Contemporary Forecast Model used the values corresponding to the years 1997 to 2008, which represents the subsection of the historic series portraying the current downward trend. In this model, the predicted attrition rate would be 32 percent this year (2009) and would continue to decrease until it reached zero around the year 2044.

Attrition and Dropout Rates in Texas Over Time



Note: For convenience, the forecasted series are shown in five-year periods (2010, 2015, 2030, and 2040). This makes the curves more abrupt than they really are. If all values were included, the curves would be smoother, but it would be a very long graphic. Notice also that for the last few forecasted years, the axes reverts to annual values (2041, 2042, 2043, and 2044) to more clearly show the distinctions between the models for those final years.

The third model took a centrist view between the Historic and Contemporary Forecast models. Mathematically, it was formed applying the means between the pairs of corresponding two model values within the models time horizon. Because of the strong influence of past history, this Medium Forecast Model predicted that attrition rates first would increase slightly to 34 percent in 2009 and 35 percent in 2010; then it would resume its downward trend during the subsequent years. However, it would still be 22 percent around the year 2044.

Contemporary Model was Closest

The Contemporary Model came within one percentage point of predicting the actual attrition rate (32 percent versus the actual rate of 31 percent). Using this new value (31 percent), we re-ran the three models and obtained the continuous lines in the figure above representing the new adjusted models. This time, the models predicted a range of 31 percent to 36 percent for next year. The contemporary model forecasts an attrition value of 31 percent for 2010; the forecasted Historic value is now 36 percent and the Medium 33 percent.

As the figure shows, the new attrition value (31 percent), which matched the lowest value ever obtained by IDRA attrition calculation (which occurred in the period 1989 to 1991), shifted the three model lines slightly downward. However the overall picture did not change significantly. Even under the most optimistic prediction, the attrition will not get in single digits until the 1930s. The new prediction move the zero attrition date to year 2042, from the 2044 estimated last year.

Forecasted Student Losses

To understand the severity of the situation, we used the updated three forecast models to estimate the number of students that will be lost to attrition during the time horizon under consideration (see table).

The Historic Forecast Model predicts that more than 6.08 million students will be lost to attrition from 2010 to 2042. The Contemporary Model yielded a figure of more than 2.30 million, and the Medium Forecast Model more than 4.19 million.

Conclusions

- If we take the full historic values as a guide, the student dropout rate should be expected to continue to

Forecasted Numbers of Students Lost to Attrition 2010 to 2042

Period	Historic	Contemporary	Medium
2010-15	932,688	711,421	822,054
2016-20	838,789	510,973	674,881
2021-25	890,517	425,231	657,874
2026-30	943,178	328,888	636,033
2031-35	996,771	221,944	609,357
2036-40	1,051,297	104,399	577,848
2041-42	435,995	6,473	221,234
Total	6,089,235	2,309,327	4,199,281

Intercultural Development Research Association, 2009

increase for the foreseeable future. Under this scenario more than 6.08 million additional students will be lost to attrition by the year 2042.

- If we assume that current downward trend is real – the result of systemic changes – the attrition rate will reach single digit values in the mid 2030s. By 2040, the attrition rate will be about 2 percent and it will reach zero in the year 2042! However, from now to that point, we would have lost more than 2.30 million students to attrition.
- A more realistic model suggests that current rates will increase to 33 percent before resuming its downward trend. In this scenario, by the year 2042, attrition will still be at about 20 percent, and during the period 2010 to 2042, we would have lost more than 4.19 million students.

Therefore, we should expect high attrition rates, in the 30s, for the next few years. We should also expect to lose between 2.30 and 6.08 million of additional students to attrition before we reach a zero attrition rate forecasted under the most optimistic scenario, unless this issue is considered seriously by policymakers and systemic changes implemented to ameliorate the problem.

References

- Montes, F. *Will the Texas High School Attrition Rate Ever Drop to Zero?* (San Antonio, Texas: Intercultural Development Research Association, October 2008).
- Johnson, R.L. "Texas Public School Attrition Study, 2007-08 – At Current Pace, Schools Will Lose Many More Generations," *IDRA Newsletter* (San Antonio, Texas: Intercultural Development Research Association, October 2008).
- Johnson, R.L. "Texas Public School Attrition Study, 2008-09 – Overall Attrition Rate Declines, But Gaps Persist Among Racial and Ethnic Groups," *IDRA Newsletter* (San Antonio, Texas: Intercultural Development Research Association, October 2009).