

Research Update: WELS Baptism Rates Lower in Congregations with Elementary Schools

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The CHARIS Institute has been engaged in studying various factors that could explain the downward trend in Lutheran elementary school (LES) enrollments in the Wisconsin Evangelical Lutheran Synod (WELS) in recent years. This rate of decline has exceeded the rate of membership loss in the WELS and therefore must be attributable to other factors. Table 1 illustrates the amount of decline in enrollments compared to baptized and communicant membership in the WELS.

Table 1. LES Enrollments, WELS Membership

	1999	2003
WELS Baptized	410,164	403,345
% change		- 1.62%
WELS Commun.	315,637	314,840
% change		- 0.26%
LES Enrollment	30,429	27,297
% change		- 10.3%

As previously announced in the Summer 2004 issue of *CHARIS*, there is a growing price sensitivity among WELS parents. There appears to be a significant correlation between tuition and the enrollment of member children in their local LES. Of note in the previous study was the fact that there appeared to be no correlation between tuition and enrollment by non-WELS children. Our understanding of the data leads us to think that congregations which are forced to charge tuition create a challenge to the time honored cultural tradition of funding the church's LES through the contributions of members to the church's general budget. When financial necessity prompts increasing the amount of direct expense to school families, we speculate that a cost/benefit analysis is forced upon families which ask themselves if the cost

of the LES is worth the value added Christian education, or if it is worth the loss of benefits available in the public school (e.g., instrumental music, foreign language, art, special education, athletics, etc.).

The Problem

More recent analysis of the statistical data provided by the WELS has studied another possible phenomenon within the population attributes of the WELS. This research update is intended to report the findings of an analysis which addresses the following question: **Is there a difference in birth rates in congregations which have an LES and those which do not.** The purpose of the question was to determine if there are statistically significant differences between these two types of congregation that would help us to understand better the rate of decline in LES enrollments.

Definitions

The WELS does not report birth rates. However, using the assumption that all births to WELS families result in a baptism, we have chosen to use infant baptisms as an indicator of births in the

WELS. The birth rate was calculated by dividing the number of infant baptisms by the total baptized membership. Again, it is our contention that within the WELS population, the baptism rate (i.e., infant baptisms/total baptized members) is directly analogous to birth rate (i.e., live births/total population) for the general population.

Methodology

Using the data reported in the WELS Statistical Reports from 1999 and 2003, we conducted both one-tail and two-tail T-Tests to determine if there is a correlation between two variables, namely, the baptism rates between congregations with an LES and congregations without. A one-tail T-Test was chosen on the assumption that all of the difference between the two population means was attributable to lower baptism rates in congregations with an LES. The two-tail T-Test allowed for differences in both directions, i.e., that some difference in the means could come from congregations with a LES which had higher baptism rates than the mean of those that did not have an LES.

Results

The mean baptism rates between the two population groups were noticeably different for each of the five years. Table 2 illustrates the mean baptism rates.

Table 2. Mean Baptism Rates

	No School	School
1999	2.33	1.93
2000	2.34	2.15
2001	2.68	1.78
2002	2.35	1.87
2003	2.20	1.74

The number of observations in each group remained fairly constant with the number of congregations without an LES averaging about 900 and the number of congregations with an LES averaging around 400 for each of the five years which were examined.

The next level of analysis sought to determine if the differences between the mean baptism rates were statistically significant. With the exception of 2000 and 2001, the mean differences between the two populations were determined to be statistically significant. We recognize that some cases change categories each year, thus creating a larger variance in some years. However, using the most recent data available to us from the fall of 2003 as a typical example, we found that there was a significant difference at the 0.01 level of significance. The results are reported in Table 3.

Table 3. T-Test. School vs. No School; Assuming Unequal Variances. 2003

	No School	School
Mean	2.20	1.74
Variance	22.3	1.24
Observations	901	396
df	1102	
P(T<=t) one-tail	*0.00287	

P(T<=t) two-tail *0.00574

* Statistically significant at the $P < 0.01$ level.

Conclusions

There is clearly a significant difference in baptism rates between congregations which have an LES and those that don't. It is evident on the basis of baptism rates alone that congregations with schools are not producing enough children to sustain enrollments in their schools.

Why might such a difference exist? We speculate that there are differences in the size, age, and location of congregations with schools from those without schools. For example, it takes a certain size of church to be able to afford the expense of a school. Consequently, we believe that congregations with schools are larger than those without. An associated conjecture is that these larger congregations are older and are located in the "heartland" of the Synod. Therefore, it appears that a paradox exists in the WELS. Those congregations with a higher proportionate number of children are less likely to have an LES than those congregations with a lower proportionate number of children. Consequently, older and larger churches with declining LES enrollments are likely to continue to decline unless their baptized membership increases or they broaden the mission of their schools to include outreach into their communities.