PUBLIC SCHOOLS ENROLLMENT DATA FOR LIVINGSTON MONTANA, 1976 - PRESENT

Adam Stern November 29, 2023

Abstract

School enrollment data for Livingston public schools from 1975 to 2023 has been electronically recorded and is publicly available. Data is recorded for every grade and every month, until 2012 when only February and October data are available. In addition to K -12, preschool, extended day kindergarten, and special education data are also recorded.

The data shows features that highlight significant changes in Livingston, such as when the railroad shops closed in 1986 and during the Covid pandemic in 2020. Particularly noteworthy is the fact that current school enrollment is at an all-time low going back to 1975 (48 years!).

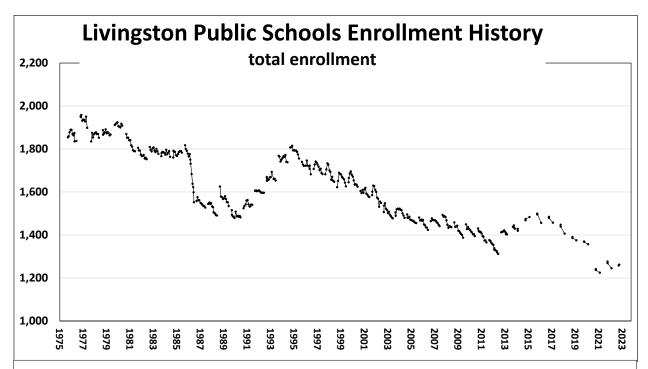


Figure 1. Total enrollment of Livingston city public schools, 1976 through 2023. Each dot represents one month, and individual school years are connected with lines. Data for all months are available until 2012, after which only October and February data are available. Preschool, extended day kindergarten, and special education are included. Note the precipitous drop in 1986 when the railroad shops closed, and the smaller but sharp decrease during the covid pandemic between 2020 and 2021.

Introduction

When the Burlington Northern railroad shops closed in Livingston in 1986, 354 people lost good paying jobs^[1] (out of a total population of around 7,000^[2]), the town economy lost \$9.7 million in revenue^[3], and the long-term consequences were profound. Shortly thereafter it was discovered the ground and water below the railyards were dreadfully polluted with diesel fuel, solvents, and other nasty chemicals, which eventually resulted in a Superfund designation and legal proceedings that lasted decades (concluding in 2012^[4]). Although either one of these setbacks is enough to impoverish and depress other small rural towns, Livingston has remained a thriving, vibrant community. What is different between Livingston and other towns that have suffered similar calamities?

In researching the social and economic consequences of Livingston's evolution, the author was led to examine school enrollment figures. The hope was the local school district, or perhaps the Office of Public Instruction (OPI) in Helena, could provide data in electronic formats, easily transmitted by email. However, enrollment data in Montana is only available electronically since 1998^[5], and published only for the months of October and February (the two months used to calculate school funding levels)^[6].

Upon further inquiry, three large dusty, decaying, and brittle binders were found in the school district's storage, containing handwritten enrollment sheets dating back to late 1975. Enrollment data was collected for each grade, for each month throughout the school years. This data has now been transcribed into an Excel spreadsheet and it is publicly available.

Figure 1 above shows total enrollments as calculated from the data. Each dot represents one month, and lines connect single academic years. Preschool, extended day kindergarten, and special education are included in the totals.

The original enrollment sheets were left in as pristine a condition as possible. They have been transferred to clean, new binders and a few small tears have been repaired, but otherwise the sheets were left unchanged, and not reordered or reorganized in any way. The binders are currently located in the vault at the school district offices.

The handwritten sheets are quite interesting as they reveal individual human and personal characteristics of school staff. Often there are parenthetical and marginal notes that tell little side stories. Individual handwriting can be recognized. Sometimes the teachers' names are recorded as well, names that some of us recognize many years later. See Figure 2 below.

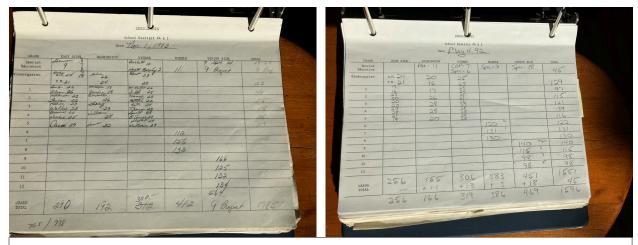


Figure 2. Handwritten enrollment sheets, from 1983 (left) and 1992 (right).

Beginning September 1980, computer printout (or electronically typewritten) enrollment sheets became available, along with the handwritten sheets. The computer printout sheets were hand tabulated, as sometimes the totals were added incorrectly. See Figure 3, below.

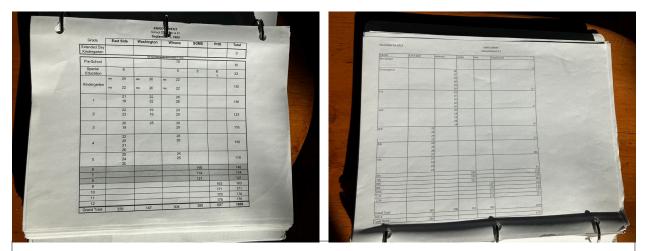


Figure 3. Computer printout or electronically typewritten enrollment sheets, from 1980 (left) and 2013 (right).

In 2012 data became available in a completely electronic format: Student Enrollment Summary Reports. These are modern computer-tabulated sheets, and are only available for October and February.

Burlington Northern railroad shop closures in 1986

The graphs below in Figure 4 show how enrollment changed throughout the 1986 academic year, when the Burlington Northern maintenance shops closed down. Workers were transferred beginning February, primarily to Alliance Nebraska and West

Burlington, Iowa. Their families followed over the next few months. The district lost a total of 265 students, amounting to a 15% decrease. The community was worried about the present and anxious about the future.

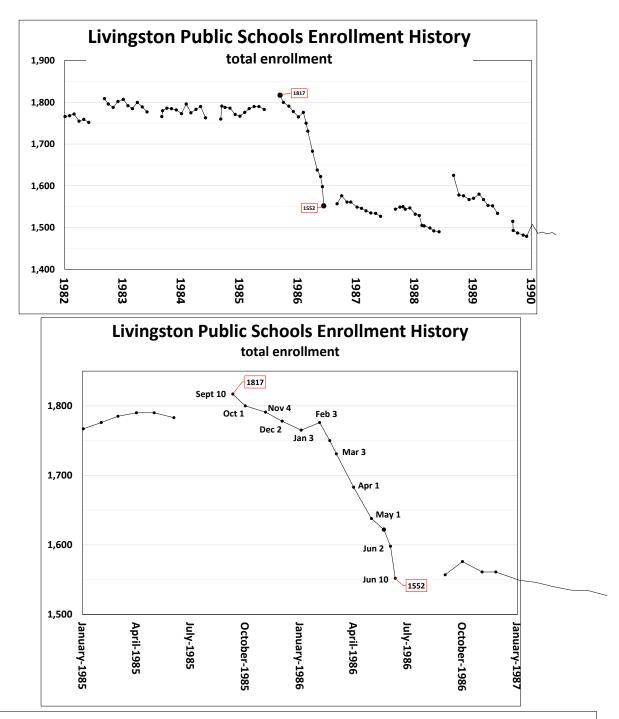


Figure 4. Enrollment decrease in 1986 when the railroad shops closed down. 265 students left the district, a 15% drop.

Impacts of the closures were wide-ranging, from education, employment, and housing, to government services and garbage disposal, see the headlines in Figure 5 below. There was significant concern that Livingston was just "a railroad town, and when the railroad left the town would die." However, school enrollment reached pre-closure levels by 1995, less than 10 years later (see Figure 1).



Figure 5. Newspaper headlines from the Livingston Enterprise throughout 1986. Note the headline predicting a loss of up to 400 students. Although the actual loss was closer to 290 students (265 from public schools, about 25 from St. Mary's private school^[8]), the community's anxiety is clearly evident in the reporting.

Covid pandemic 2020 – 2021

Between February 2020 and October 2020, the schools lost 116 students, an 8.6% decrease. Other data^[9] shows that approximately 80% of this loss has been a transfer to local private schools; the remaining 20% are likely either home-schooled or have left the area. See Figure 6 below.

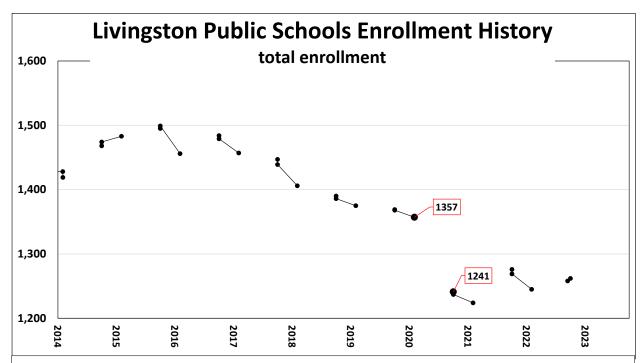


Figure 6. Total enrollment throughout the Covid pandemic of 2020 - 2021. Enrollment fell by 116, an 8.6% decrease. Approximately 80% of this loss can be accounted for by the increase in local private school enrollments.

Conclusions

Enrollment data for Livingston's public schools are available in electronic format, for every grade and every month, from 1976 to 2012, and for February and October every year from 2012 to 2023. There are interesting patterns in the data corresponding to local historical shifts; notably school enrollment is at an all-time low going back to late 1975 (48 years). This last fact has important consequences for future development patterns in the Livingston area.

Data availability

The dataset is freely available from the author.

Acknowledgements

The author would like to thank Jenny Stringer for helping locate the original data and being a faithful servant of our local educational system, and Robin Clausen at OPI in Helena for helping hunt down additional data.

About the author

Adam Stern is an amateur historian in Livingston, Montana, and a scientist by trade. He was elected to the Livingston City Commission in 2011 and served from 2012 to 2015, and was very active on the Livingston City Planning Board from 2010 to 2020. He can be reached at:

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