

Vocational Education in Beverly: A Model of the Factory-School Connection

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Abstract

This paper is about the connection between trade schools and factories. There were many strong connections between the trade school and the major factory in Beverly, the United Shoe Machinery Corporation. Class lists and other documents in the Beverly Educational Archives give a general idea of what an Industrial School students' school experience was like. There were also many causes for the connection, which could be found in the annual reports of the Trustees of the Industrial School. The paper also shows a similar situation in Lowell compared to Beverly's. There is information on how Beverly's and Lowell's industry and schooling was affected by war and the growing need for industrial workers. A discussion from the National Education Association proceedings contains the viewpoint of a manufacturer on why the trade schools are important and why they should train directly for the factory work. Illustrating the changes over time in the school and factory was another area that was focused on in this paper. The connection never really changed, but it was affected.

The Full-time Student aspect is a key part of this paper. It shows that the students did not just interact with the factory but they were actually assimilated into the factory. They became equals of the factory workers when they were in the factory. There was scarcely any connection between the newer trade schools that developed in Beverly. This connection was scarce, and was only able to be seen in certain schools that were examined and also seemed to be unique to only the time period discussed.

At the turn of the twentieth century, Beverly was a large flourishing city with great ethnic and economic diversity, and many varying economic levels. one key factor in the city's development, was the United Shoe Machinery Company (USMC). This factory, with its enormous quantity of jobs, was a center of economic vitality in Beverly for almost a hundred years. There were so many jobs available that trained workers came from all around, settling in Beverly, just to work at the USMC. Beverly then began to train youth for these jobs by adding a strong vocational aspect to schooling. Part of this training was on-site work at the USMC.

“It is now pretty generally agreed that we must look to the schools for our future skilled workmen. The apprenticeship system can never return, and if it could return in its best form, it would be entirely inadequate to meet our present demands,” [1] Milton P. Higgins pointed out in the NEA (National Education Association) proceedings in 1903. Higgins was the president of a wheel manufacturing company in Worcester, Mass. He spoke of the need of these students to be trained for specific jobs. “At the start any trade-school system, any education for the trades, in order to meet the reasonable needs and demands of the manufacturer must make *skill* the central part of the enterprise.”[Sic] (see [Appendix A](#)) [2] Higgins believed that the industrial school is a necessity in order for industry to prosper. He also spoke on the importance of the technical and trade colleges such as MIT as well as the textile schools of Philadelphia and Lowell.

Probably there is no line of manufacturing where the trade school has been more thoroly [Sic] organized for teaching the practical skill required than the textile schools, such as those at Philadelphia and at Lowell; and I think no attempt has yet been made where the results are more satisfactory to the manufacturer. This is largely because, owing to the nature of the industry, these schools have been conducted under conditions as real and almost exactly the same as the pupils will meet upon leaving the school. [3] (see [Appendix A](#))

Here he mentions that Lowell's textile schools are very beneficial. This was important in that Beverly had a similar type of school. While the schools may not have been the same

there were some great similarities, such as their great ties to the manufacturer. While the materials being made were not the same the goals of the two schools were the same.

Higgins also points out that “over 30 per cent of all our skilled mechanics are born and trained in foreign countries...” [4] Here he is showing a strong interest in keeping the industries in the US, as American as possible. The bottom line was that the students should be trained specifically for factory work so they could be more useful than foreign students.

The Beverly Independent Industrial School was established in 1909, for the purpose of training young men and women in factory work. [5] Despite its name, there was actually a connection between the factory and the public schools. In the USMC there was a separate part of the factory set aside for the use of the school. While they did not interact with other workers they were still producing products for the factory. The factory funded all projects that the students were doing and in return purchased all products, which passed inspection and the factory standards, at a very reduced rate. The corporation gave a section of floor-space, heat, light, power, machines, and tools, to the Industrial School, and the school regarded this area as its own little factory. [6]

In addition to learning in a hands-on environment, there was also time spent in the classroom. Every other week would be spent in the classroom learning basic math and science relating to factory work, including sketching dimensions, reading blueprints, English, civics and economics, and business forms and practice. [7] This was felt to be the backbone of their learning and gave them the knowledge they needed to apply to their work. This knowledge could be used in many other vocations, not limiting the students to work in the USMC, but allowing them to venture off into other trades that they may find interesting or more challenging.

World War I played a major role in the industry of both Beverly and Lowell. War called for a drastic increase in the production of materials, be it clothing or any other important

wartime material. A large job market opened up when the young men went off to war. Factories now needed many new trained workers to keep producing the materials needed by the soldiers. [8]

An important goal of the student's learning was becoming a full-time working student. Instead of being separated into mini-factories inside the USMC, they were placed into many different departments and allowed to work in unison with the actual factory workers. This was an evolutionary process. The boys would start in the mini-factories under the supervision of their instructors; when the instructor felt they had achieved an advanced knowledge of the work it was put to the school board. These instructors were all trained in the areas they taught and were chosen by the board of the vocational school. Each student had to be assessed by the vocational school board, which consisted of five members, the mayor, a representative of the USMC, and three school committee members, and then voted into a full-time position. Once in a full-time position they earned better wages and worked in the actual factory environment. [9] While this appeared to be the best way to learn not many students were allowed to go full-time. In 1911, however, only eight were allowed. Before they went into full-time student positions, they were part time. Part-time students were just the students learning with the school instructors. This school provided a way for students to work in a factory environment without actually being factory workers, or being indentured to the manufacturer. (see [Appendix B](#))

During the course of the school there was a very large dropout rate. Out of classes that were averaging around 80-120 boys a year, approximately one tenth of these boys would graduate. In 1914 there were only 13 boys that were given certificates of graduation. Even though they dropped out, most students coming out of this ended up in the various trades. Twenty nine and a half percent of the boys entered into the shoe factories and 21.5 % of the boys entered into the factories that make the machinery that those shoemakers's use. The girls from the school had 37.6% go into shoe manufacturing. The shoe industry

was a big part of Beverly's history. The USMC played a key role in making the machinery needed for shoe factories. The Industrial School contributed 98 students who had attended recently, both male and female, to the shoe industry in 1914 alone. [10] This school was an infinite supplier, fulfilling the demand for competent, inexpensive workers. (see [Appendix C](#))

In 1915 the Industrial School was the only school acknowledged and commended on a national level for its spectacular results in training students. The leading factor for this was stated to be the strong connection between the USMC, with George Vose as its representative on the Industrial School board. What was at first an experiment became a leading producer of talented young men and women, who were eagerly climbing into the economic ladder at a rather young age. [11] This leads one to believe that the dropout rate was not viewed as a problem and they were only looking to give the students a better knowledge of the job at hand. It does not appear that graduation was really a large part of the mission of the school. The mission appeared to be just to give the students the most preparation they could before the students entered into a factory atmosphere.

Beverly had another trade school that was established in 1926. This school, quite simply named Beverly Trade School, was not similar to the Industrial School. While the industrial school focused on placing the students immediately into factory work, the new trade school gave a more rudimentary knowledge to its students. It began with courses in auto-repair, cabinet making, printing, and sheet metal. Over the next 20 years the school added new courses. In 1928 it added a carpentry course, in 1936 a pattern-making course, and in 1946 it established a machine shop. The reason why machine shop was introduced so late was probably due to the existence of the industrial school, which already specialized in that type of training. [12]

The Industrial School underwent some changes over the course of its existence. One major change was the addition of a carpentry course between 1945-1946. This was made

possible through their connection with the North Shore Masters Builders Association. With all of these ties to other various industries and the high school, the name seemed to be inappropriate. It was not by any means an “independent” industrial school. In October of 1928 the Board of Trustees changed the name to the “Beverly Cooperative Trade School”. [13] This name seemed much more fitting, and remained the same until the end of the school sometime in the late 1970’s. As time went on the schools began to collaborate much more closely and in many respects merged. For example, they had the same school board. By the end of the course of vocational and industrial education, and the end of the USMC in the late 1970’s, the schools had all become almost one entity including the newer Patten Trade School, established only a few decades earlier, as part of the new Beverly High School.

Another city that had a large industry influencing its development was Lowell. Lowell is well known for its large mills. Lowell also had a connection between schooling and factory work. With an industry like this, they needed to have intelligent, well-trained workers. The school in Lowell was more of a vocational school than an industrial school; it taught many trades, not only how to work in the factory, as compared to the Beverly school. The school still had more milling machines and accessories than it did for the various other trades that it taught. While the school was for both boys and girls, the girls actually had a direct connection with The Singer Sewing Machine Company. This manufacturer gave the girls division of the evening industrial school electric sewing machines, and provided trained instructors for the courses that were becoming available in that field in 1926. There were milling classes that were taught at night that had very strict rules on who could instruct the courses and how they were instructed. This was largely because of the need of well-trained personnel in the factory. The evening school was not open to the public, but was a rather private school, which only allowed those, employed in the trade being taught to join. [14]

Both Beverly and Lowell had similar goals. Even though there was a difference in the methods and training, the goals were still the same. The two cities each were centered, at least at the time, on their factories. They were the leading source of jobs in both cities. Both cities were trying to create their own supply of skilled workers for their factories. This would have strong benefits to not only the school, but also the corporation, and the town.

There was an ongoing debate as to whether or not the ties between the factory and the school were good. Some felt that the USMC was gaining much more than the school, and vice-versa. There was a debate in the NEA proceedings from an educator's point of view as well as a manufacturer's. In many other cities the students trained in factories were "indentured to the manufacturer", while in Beverly they were not. Beverly's system seemed ideal due to the fact that the school was public, and not privately run by the factory. Beverly was divided on the issue. There were many who had strong opinions about the students being used for labor as they were. The largest question raised was: who gains more out of this partnership? The answer is neither. Both contributed their fair share in that the school provided cheap labor for the factory and the factory provided all machines, which the school could not. The students also had normal classes so there was time in which they were not working for the factory, but the factory was still sacrificing its machines. [15]

There has been a long history, of the connection between the factory and the industrial school in Beverly. From the beginning of the industrial school there was the USMC to benefit from the new youth labor. From there the factory gained new, experienced young workers. The school in return benefited in that they had a real factory to teach in. There was a mutual bond between the two and it worked for many years. This never died out until there was no longer a factory to train for. This was the connection between them, and the reasons for this are an important part of Beverly's history.

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Footnotes

- [1] National Education Association Proceedings and Addresses, 1903, 597
- [2] National Education Association Proceedings and Addresses, 1903, 598
- [3] Ibid. 600
- [4] National Education Association Proceedings and Addresses, 1903, 597
- [5] “Charter” Beverly Trade and Cooperative Trade schools. 1945. [Beverly Educational Archives](#). Beverly High School
- [6] Annual Report of the Trustees of the Industrial School, Beverly, Massachusetts 1914, 13
- [7] Ibid.
- [8] The Annual Report of Lowell, Mass Public Schools, Lowell, Mass., 1920’s
- [9] Annual Report of the Trustees of the Industrial School, Beverly, Massachusetts, 1911, 22
- [10] Annual Report of the Trustees of the Industrial School, Beverly, Massachusetts, 1915, 7
- [11] Annual Report of the Trustees of the Industrial School, Beverly, Massachusetts, 1914, 5
- [12] “Charter” Beverly Trade and Cooperative Trade schools. 1945. [Beverly Educational Archives](#). Beverly High School
- [13] Board of Trustees Minutes, Beverly, Mass, October 26 1928
- [14] The Annual Report of Lowell, Mass Public Schools, Lowell, Mass., 1920’s-1930’s
- [15] Annual Report of the Trustees of the Industrial School, Beverly, Massachusetts, 1909, 20-21