# ICEB Country Report from the United States

**April, 2018**

The United States members of the Braille Authority of North America (BANA) voted to adopt Unified English Braille (UEB) in 2012 as an official code for the U.S. The implementation date was set for January 4, 2016. Since that time, the official codes for use in the United States are UEB, Nemeth, Music, and the International Phonetic Alphabet (IPA).

Overall, the implementation of UEB has been progressing well. We have had the assistance of all BANA member organizations as well as other national and state groups that support braille transcription, production, and instruction. The Library of Congress certification program for transcribers and proofreaders has now issued 221 new UEB certificates as well as approximately 300 letters of UEB proficiency to continuing transcribers. An additional certification course is being developed that will focus on technical transcriptions in UEB. Because each of the 50 states has its own system of procurement and production of braille materials, many state departments of education have created implementation plans for moving students in their state to the updated code.

The United States has not established a single standard for mathematics braille. Both UEB and Nemeth are fully available for use. The US members of the BANA board have held lengthy discussions about the approach to promoting two different codes for the use of braille in math and science. BANA's recommendation is that the decision to use UEB or the Nemeth Code within UEB context for technical materials should be made based on braille readers' individual needs. In the education arena, there has not been a uniform approach among the states in the instruction and provision of materials for technical subjects in braille.

Because the nonmathematical text surrounding Nemeth code symbols is based on *English Braille, American Edition* (EBAE) which is no longer supported, BANA's math committee devised and the Board approved *Guidance for Transcription Using the Nemeth Code within UEB Contexts*. This document provides rules and examples for switching between UEB and Nemeth*.* In addition, the BANA mathematics committee is embarking on a full revision of the Nemeth code incorporating the code switch devices and examples.

The development of a new braille translation software package (BrailleBlaster) in the United States has increased the number of viable tools for those involved in braille production and is a very positive step toward the provision of timely and high-quality braille. Also, the adoption of UEB has created a situation in which a certain amount of unreliability in automatic print-to-braille and braille-to-print translation is no longer as much of a "necessary evil" and is more of a matter of software companies understanding and responding to the need for improvement. US-based companies responsible for the maintenance of software that drives refreshable braille displays have responded, in varying degrees, to pressure from braille users to reduce the unnecessary inaccuracies in automatically-generated refreshable braille. Overall, there has been a general increase in the completeness and accuracy of UEB generated from screen readers and stand-alone refreshable braille devices, but there remains a distance to go.

With the increasing availability of lower-cost refreshable braille displays, the appeal of consuming braille electronically is growing in many arenas. The National Library Service for the Blind and Physically Handicapped (NLS) is in the process of developing requirements for the creation of a refreshable braille display with an interest in cost-savings, production, mailing, and storage costs. Later this year, NLS will release a Request for Proposal inviting interested manufacturers to submit bids for the development of a display that meets NLS requirements. Once displays are available, they will be distributed to interested braille readers free on loan from their libraries.

## BANA Publications

BANA's formatting guidelines, *Braille Formats: Principles of Print-to-Braille Transcription, 2016* is available on the BANA website in multiple versions: brf volumes and files, searchable and accessible pdf files, and in html. Hardcopy print and braille versions will be available for purchase from the American Printing House for the Blind (APH). Creating these multiple versions has been the result of thousands of volunteer hours from BANA committee members.

The revised BANA *Music Braille Code, 2015* is available on the web site and is now available for purchase in print and braille from APH.

An update of the BANA Tactile Graphics Guidelines to align with UEB is still in progress. The tactile graphics committee meets regularly to discuss issues that arise in this alignment; the revision will include examples in both UEB and Nemeth codes.

## BANA Membership and Other Activities

The membership of BANA has experienced growth, now with a roster consisting of eighteen full member organizations and four associate member organizations. Each full member organization sends a representative to attend the semi-annual Board meetings.

BANA Committees continue to devote many hours to working for BANA. BANA has six Board committees, five "general" committees (which include both Board members and others from outside the Board), and ten technical or ad hoc committees. Each of these committees consist of volunteers who share their expertise and enthusiasm for braille.

BANA continues to present the Braille Excellence Award to recognize outstanding contributions to braille. The award is given every two years if a worthy recipient is nominated. The recipient of the 2017 Award was Dr. Lawrence Smith, recently retired chair of the BANA music technical committee.

Submitted by Jennifer Dunnam, Chair, Braille Authority of North America; Frances Mary D'Andrea, Immediate Past Chair, BANA, and ICEB Secretary; Judy Dixon, ICEB Executive Committee member at large