By facilitating the collection and use of detailed, high quality student- and staff- level data linked over time, longitudinal data systems (LDSs) hold promise for enhancing both the way education agencies use data to serve students and the way they do business, from the policy level to the school office and into the classroom. The *Traveling Through Time: The Forum Guide to Longitudinal Data Systems* series is intended to help state and local education agencies meet the many challenges involved in building robust LDSs, populating them with quality data, and using this new information to improve the education system. With special emphasis on the business-level perspective, this document explores a broad range of issues involved in establishing a successful LDS.

*Book Four of Four: Advanced LDS Usage* discusses issues important to the effective use of longitudinal data. The book’s focus is on turning student-level longitudinal data into actionable information at all levels of the education system.

Chapter 1 provides a historical look at data use, comparing what was done in the past with what is possible today thanks to detailed longitudinal data. Chapter 2 discusses preconditions necessary for effective data use, including ensuring that users have easy access to, and an understanding of, high quality data; as well as strong leadership and organizational support. Chapter 3 summarizes the many uses of longitudinal data, as well as the ways different stakeholders can access and leverage the information. Chapter 4 presents tips on implementing effective training and professional development programs on the use of longitudinal data. Chapter 5 concludes the overview of longitudinal data use with information on the future of LDS development and use. Throughout the book, case studies provide real-world examples of effective uses of LDSs. Appendices review the entire series, and provide information on additional resources.