A Look at the Past, Present, and Future of Rural Secondary Transition

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Abstract
Depending on which date is attributed to the birth of secondary transition, it can be considered anywhere from 27 to 57 years old. No matter which date is used, it has been a while since the field “took stock” of itself. Therefore, the purpose of this article is to (a) briefly summarize where the field of secondary transition has been; (b) briefly summarize where we think the field of secondary transition now stands in terms of student postschool outcomes and barriers to successful outcomes in rural communities; and (c) conclude with some thoughts on what is next, how we might get there, and what this means for secondary transition in rural areas.

Keywords
secondary transition, rural transition, history, future needs

It is difficult to say exactly how old the field of secondary transition is. Halpern (1992), in his influential article titled “Transition: Old Wine in New Bottles,” suggested secondary transition began in the 1960s when work/study programs started as cooperative ventures between public schools and vocational rehabilitation (VR). This was followed by the “Career Education” movement of the 1970s that saw the formation in 1976 of the Division of Career Development within the Council for Exceptional Children. Another possible birthdate of secondary transition could be considered 1983, when Madeleine Will outlined three bridges from high school to employment in the Office of Special Education and Rehabilitative Services (OSERS) position paper on secondary transition. The OSERS model was followed shortly by Halpern’s (1985) expanded model of transition from high school to community adjustment, which rested on the three pillars of employment, residential environments, and social and interpersonal networks. This expanded model reflected the field’s recognition that a successful life included more than just work.

At about the same time, a series of studies emerged that focused the field on the poor postschool outcomes of students with disabilities (e.g., Affleck, Edgar, Levine, & Kortering, 1990; Hasazi, Gordon, & Roe, 1985). These dismal findings, combined with the new models of transition, provided the backdrop for the addition of a transition component to the Individualized Education Program (IEP) for students 16 years and older (and younger if needed) in the Individuals with Disabilities Education Act (IDEA; P.L. 101-476) of 1990. As a result, 1990 might also be considered a “birthday” of secondary transition.

So depending on which date is attributed to the birth of transition, it can be considered anywhere from 27 to 57 years old. No matter which date is used, it has been a while since the field “took stock” of itself. Therefore, the purpose of this article is to (a) briefly summarize where the field of secondary transition has been; (b) briefly summarize where we think the field of secondary transition now stands in terms of student postschool outcomes and barriers to successful outcomes in rural communities; and (c) conclude with some thoughts on what is next, how we might get there, and what this means for secondary transition in rural areas.

Where Have We Been?
Since the introduction of Will’s (1983) and Halpern’s (1985) transition models and the early postschool outcomes studies, the field of secondary transition has attempted to identify and implement practices to improve outcomes for all students with disabilities. This search for quality practices can be divided into two eras: Best Practices (1985–2000) and Evidence-Based Practices (2001–now).

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During this era, “best practices” for providing transition services were identified using a variety of strategies including descriptive follow-up studies, case studies of state and local education agencies with exemplary programs, reviews of the literature, stakeholder questionnaires, and concept mapping. Although this article cannot provide an in-depth summary of all studies conducted during this era, an example of each type of study is briefly described below.

First, Hasazi et al. (1985) conducted a follow-up study of 462 youth from nine Vermont school districts who left school between 1979 and 1983. The authors found students who participated in work experiences while in high school had better postsecondary employment outcomes than students who did not have high school work experiences.

Second, Hasazi, Furney, and DeStefano (1999) conducted a study of five model and four representative local education agencies to identify “best practices.” Model sites were nominated by a panel of national experts, and sites then received 3- to 5-day visits to collect data. Based on these visits, six characteristics (or “best practices”) were identified: (a) incorporating student and family-centered strategies; (b) fostering effective interagency collaboration; (c) facilitating systemic professional development; (d) having visionary, supportive, and inclusive leadership; (e) coordinating reform efforts; and (f) linking local and federal transition initiatives.

Third, Karge, Patton, and de la Garza’s (1992) literature review identified 12 functional curricula areas important for students with disabilities: (a) job search skills, (b) job maintenance skills, (c) job related functional academics, (d) mobility and transportation skills, (e) recreational activities, (f) paid community jobs before graduation, (g) counseling on postsecondary vocational options, (h) referral to adult service agencies prior to graduation, (i) self-advocacy skills, (j) parent training and advocacy, (k) individualized transition plans 2 years prior to graduation, and (l) student participation in transition planning and meetings.

Another method for identifying “best practices” during this era was through stakeholder questionnaires. For example, Hughes, Hwang, et al. (1997) surveyed 54 transition researchers to establish the social validity of a proposed list of student transition-support strategies. Their results indicated 10 strategies: (a) teach social skills; (b) teach self-management; (c) identify environmental independence objectives; (d) assess social acceptance; (e) identify counselor, peer, and family supports; (f) identify student preferences and choices; (g) monitor social acceptance over time; (h) identify natural supports; (i) match support to student needs; and (j) teach choice making and decision making. This list was then validated by 76 secondary transition teachers (Hughes, Kim, et al., 1997). In addition, these teachers generated 592 procedures that could be used to implement the “empirically-based secondary transition student support strategies” (p. 210).

A final method used to identify “best practices” was concept mapping. Kohler (1996) developed the Taxonomy for Transition Programming based on findings from a review of the literature (Kohler, 1993), an analysis of exemplary transition programs identified through evaluation studies (Kohler, DeStefano, Wermuth, Grayson, & McGinty, 1994), a meta-evaluation of model demonstration transition programs (Rusch, Kohler, & Hughes, 1992), and concept mapping (Kohler, 1996). The effective (or “best”) practices identified were organized into five major categories: (a) student-focused planning, (b) student development, (c) interagency collaboration, (d) family involvement, and (e) program structure.

In conclusion, literature in this era identified “best practices” about how to structure transition programs, what skills to teach, and what services appeared to lead to better postschool outcomes. However, much of this research was descriptive in nature (e.g., surveys, literature reviews, case studies), and did not meet the criteria for quality research expected in the next era.

Era of Evidence-Based Practices (2001–Now)

This era could be said to have begun when No Child Left Behind Act (P.L. 107-110, 2001) required schools to ensure all students had access to effective scientifically based research defined as “research that . . . involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education activities and programs” (20 U.S.C § 7901[37]). This definition was then included in the Individuals With Disabilities Education Improvement Act (P.L.108-466; IDEA, 2004). IDEA (2004) required all special education and related services included in a student’s IEP be based on peer-reviewed reports to the “extent practicable” (IDEA, 20 U.S.C § 1400 et seq.). During this time, the Institute of Education Sciences (IES) established the What Works Clearinghouse (WWC) to conduct systematic reviews to identify instructional practices from “scientifically-based research.” In the field of special education, the journal Exceptional Children (“Criteria,” 2005) published a special issue using the term “evidence-based practices,” as well as proposing quality indicators for group- and quasi-experimental research (Gersten et al., 2005), single-subject research (Horner et al., 2005), correlational research (Thompson, Diamond, McWilliam, Snyder, & Snyder, 2005), and qualitative research (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005).

This evidence-based movement was incorporated into the field of secondary transition when the U.S. Department of Education, Office of Special Education Programs (OSEP) funded the National Secondary Transition Technical Assistance Center (NSTTAC; H326J050004 and H326J110001) as their secondary transition technical
assistance and dissemination center. Not surprisingly, one of NSTTAC’s tasks was to identify and disseminate evidence-based practices for the field of secondary transition. NSTTAC did this by systematically reviewing the experimental research literature on transition between 1984 and 2008 (Test, Fowler, et al., 2009). As a result, 32 secondary transition evidenced-based practices, sorted by the five Taxonomy for Transition Programming (Kohler, 1996) categories, were identified. Three practices were found in Student-Focused Planning, 25 in Student Development, one in Family Involvement, three in Program Structures, and none in Interagency Collaboration. Since 2009, NSTTAC and National Technical Assistance Center on Transition (NTACT) have updated the list of practices, and although a new list has not been published in a journal, the current list includes 11 evidence-based, 38 research-based, and 39 promising practices to teach academic, employment, or life skills to secondary students with disabilities.

Also during this era, Landmark, Ju, and Zhang (2010) conducted a literature review to update and extend Kohler’s (1993) study that identified “empirically substantiated best practices in transition” (p. 171). These practices, listed from most to least substantiated, were (a) paid or unpaid work experience, (b) employment preparation, (c) family involvement, (d) general education inclusion, (e) social skills training, (f) daily living skills, (g) self-determination skills training, and (h) community or agency collaboration.

Finally, Cobb, Lipscomb, Wolgemuth, and Schulte (2013) reported findings from their review of experimental research studies that directly measured the impact of programs (i.e., strategies, interventions, or sets of services) on student employment, education, or independent living post-school outcomes. Using the IES, WWC standards for determining quality research, Cobb et al., were only able to identify that (a) community-based work-experience programs had mixed effects on employment outcomes (based on medium-to-large extent of evidence) and potentially positive effects on postsecondary education outcomes (based on a small extent of evidence), and (b) functional life-skills development programs had potentially positive effects on independent living outcomes (based on a small extent of evidence).

Together, these evidence-based studies provided the field with an initial set of 32 classroom and school-based instructional practices designed primarily to improve students’ transition skills (Test, Fowler, et al., 2009), as well as practices that demonstrated a causal link between community-based work-experience and successful employment and education postschool outcomes and functional life-skills development programs and increased independent living postschool outcomes. As no evidence-based instructional practices identified by Test, Fowler, et al. (2009), and only two evidence-based practices identified by Cobb et al. (2013), were causally linked to improved postschool outcomes, NSTTAC conducted a literature search of correlational research to identify predictors (or strategies) that were positively correlated with improved postschool outcomes in employment, education, and/or independent living (Test, Mazzotti, et al., 2009).

NSTTAC’s systematic review included correlational studies published between 1984 and 2009 (Test, Mazzotti, et al., 2009). Based on 22 studies that met the quality indicators for correlational research suggested by Thompson et al. (2005), this review identified 16 in-school predictors correlated with improved postschool outcomes of students with disabilities in the areas of education, employment, and/or independent living.

Next, Rowe et al. (2015) conducted a Delphi study to operationally define each predictor as well as identify essential program characteristics for each predictor. Based on these findings, the Predictor Implementation Self-Assessment (Fowler & Rowe, 2015) was revised to provide educators with a tool to evaluate and improve transition programs for students with disabilities.

The ability to identify additional in-school predictors of postschool success was strengthened by the release of the National Longitudinal Transition Study–2 (NLTS-2) data in 2011. These data were based on a nationally representative sample of more than 11,000 youth with disabilities between the ages of 13 and 16 years who were in school and then exited between 2001 and 2009. Based on these data, between 2011 and 2015, 60 correlational studies were conducted using the NLTS-2 database. Each of these studies were identified and summarized in an NTACT (H326E140004; current OSERS’ secondary transition technical assistance and dissemination center) annotated bibliography (Mazzotti, Rowe, Wagner, et al., 2016). These studies provided additional support for the 16 existing predictors as well as provided evidence for four new predictors (Mazzotti, Rowe, Sinclair, et al., 2016) bringing the current total to 20.

Where Are We Now?

Based on the instructional practices and predictors that emerged from the era of evidence-based practices, we would argue that the field of secondary transition is in a better place today than it has ever been. However, the field may not be able to rest on its laurels at this point. The next section looks at the most recent postschool outcomes as well as issues that arise when delivering secondary transition services in rural areas to set the context for the emerging era of data-based decision making (DBDM).

Postschool Outcomes

In one of the last documents generated by the NLTS-2, Newman et al. (2011) reported on the post–high school
The need to continue focusing on improving transition services for students with disabilities is promising, recent data from the NLTS (2012) indicate that 86% of young adults with disabilities reported enrolling in postsecondary education within 8 years of exiting high school. Forty-four percent enrolled in a 2-year or community college, whereas 19% enrolled in a 4-year college. At the time Wave 5 data were collected, 40% had graduated from their program and 18% were still enrolled. Not surprisingly, students with learning disabilities; speech/language, hearing, vision, orthopedic, other health impairments; or traumatic brain injury had higher enrollment and graduation rates than students with more significant disabilities (e.g., mental retardation, autism, multiple disabilities).

Next, post-high school employment outcomes indicated that 91% of the young adults with disabilities reported having at least one job since leaving high school, with an average of four jobs during this time. Of those young adults who had been out of high school for 8 years, 67% had worked full-time and their current or most recent job wages averaged US$10.40/hr and 61% received at least one fringe benefit. Again, students with learning disabilities had better employment outcomes than students with other disabilities.

These encouraging outcomes are also reflected in the latest (Federal Fiscal Year [FFY] 2015) summaries of states’ (n = 60 states and territories) reports on the four “transition” indicators reported annually in the Part B, State Performance Plan/Annual Performance Reports (SPP/APR) for Indicators 1 (graduation rates), 2 (drop-out rates), 13 (transition IEP compliance), and 14 (postschool outcomes; U.S. Department of Education, 2017). For graduation rates, the average rate was 63.9% with 39 states improving from FFY 2014. In terms of drop-out rates, from the 20 states that collected these data using the “exiter rate” formula (the standard formula used by all states to report their Section 618 data for all students), rates improved slightly from a mean of 18.20% (FFY 2014) to 17.5% in FFY 2015. Although promising, data also indicated for both Indicators 1 and 2, the majority of states did not meet their stated targets on either Indicator.

Next, in terms of Indicator 13, the percentage of states in compliance has risen from 80% in 2009 to 2010 (when the Indicator language was strengthened) to 92% in FFY 2015. In addition, 36 states showed progress from FFY 2014 and 10 states reported 100% compliance.

Finally, Indicator 14 data indicated 27.4% of exiters were enrolled in higher education, 63.3% were enrolled in higher education and/or employed, and 78.6% were enrolled in higher education, competitively employed, and/or some other type of postsecondary education, training, or employment. The 6-year trend showed an increase in all three postschool outcomes.

Although the NLTS-2 and the SPP/APR Indicator data are promising, recent data from the NLTS (2012) indicate the need to continue focusing on improving transition services for all students with disabilities. For example, although inclusion in the general curriculum is a predictor of improved postschool education and employment outcomes (Test, Mazzotti, et al., 2009), only 72% of students with an IEP reported receiving school-based academic support before or after school compared with 78% of students without an IEP. Next, in terms of preparing for postsecondary education, only 42% of students with an IEP had taken a college entrance or placement test (vs. 70% with no IEP), 9% of students with an IEP had taken a high school course for college credit (vs. 28% with no IEP), and 54% of students with an IEP had received help from school staff with the college application process (vs. 60% with no IEP). Next, in terms of preparation for employment, 38% of students with an IEP had nonschool-sponsored paid work experiences (vs. 50% with no IEP) and only 12% had school-sponsored (paid or unpaid) experiences (vs. 7% with no IEP). This is discouraging considering work-experience training has been recognized as a key predictor of postschool employment success since 1985 (Hasazi et al., 1985).

Finally, as the NLTS 2012 collected data on school locale (i.e., city, suburb, town, or rural), some differences could be noted (Lipscomb et al., 2017). First, youth who attended suburban schools had higher expectations for obtaining postsecondary education than students in other locales, and youth in towns or rural areas had lower rates of taking college placement or entrance exams. However, town and rural schools indicated higher percentages in terms of recent work experience (youth-reported) and parent expectations to live independently by age 30.

In conclusion, state and national data indicate improving trends in terms of postschool outcomes for students with disabilities. However, data from NLTS 2012 indicate the need for continued improvement in providing transition services for students with disabilities. This can be accomplished by increasing use of secondary transition evidence-based practices and predictors.

**Barriers to Successful Outcomes in Rural Communities**

In preparing for this manuscript, NTACT asked its Rural Transition Community of Practice (composed of state and district personnel in special education and VR) about challenges facing rural students with disabilities as they prepare to transition out of high school into adult lives. The most frequently reported barrier was access to transportation, which included the following: (a) proximal availability of an array of services for individuals with complex disabilities or mental health diagnoses; (b) limited access to a variety of employment opportunities; (c) limited access to postsecondary education options; (d) limited access to activities and experiences; (e) ability of specialized personnel to provide education and services (e.g., interpreters, career and technical education teachers, special education teachers); and (f) capacity (time) to engage in
collaborative planning and service delivery. Additional topics were categorized as (a) expectations, (b) opportunities, (c) personnel, (d) services, or (e) cultural barriers respondents felt were specific to rural communities. See Table 1 for more detailed information about each identified barrier.

**Looking to the Future: Era of Data-Based Decision Making**

When the field looks back on today, some individuals may suggest that this era began with the OSEP’s move to Results Driven Accountability (RDA). However, this ignores the fact that response to intervention, positive behavior supports, and Implementation Science had all been involving schools in making data-based decisions for many years. In the field of secondary transition, NSTTAC, the National Post-School Outcomes Center, and the Regional Resource Centers had been facilitating DBDM with state teams since 2006. Nevertheless, OSEP’s move to RDA and State Systemic Improvement Plans definitely solidified the movement. But, if this coming era is to gather momentum in the field of secondary transition, a number of things must happen, including (a) researchers must continue to conduct and publish high-quality experimental and correlational research, (b) state and local agencies must have tools for using data to drive program improvement, (c) professionals must be fully prepared to participate in the process, (d) transition services must be integrated into the fabric of all high schools, (e) seamless interagency collaboration must occur, and (f) students and families must be empowered to be part of the process.

**High-Quality Research**

DBDM cannot happen unless there is a foundation of quality research for professionals to use to identify and implement evidence-based practices. For this to happen, all future studies must be designed to meet the quality indicators for the type of research conducted. Studies that do not do so should not be published. Second, focus on experimental (group or single-case) research, or if correlational, use propensity score

### Table 1. Barriers to Successful Secondary Transition Outcomes in Rural Communities.

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Details</th>
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<tbody>
<tr>
<td>Expectations</td>
<td>High rates of unskilled employment in some communities—graduation not required</td>
</tr>
<tr>
<td></td>
<td>Lack of knowledge regarding importance of attendance, academic performance, and transition planning</td>
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<tr>
<td>Opportunities</td>
<td>Distance to postsecondary education and training</td>
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<tr>
<td></td>
<td>Few employers</td>
</tr>
<tr>
<td></td>
<td>High poverty and unemployment in some communities</td>
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<tr>
<td></td>
<td>Limited experiences beyond local community for some (fear of change, limited social opportunities, reputations)</td>
</tr>
<tr>
<td></td>
<td>Physical nature of jobs available may exclude some individuals with specific disabilities</td>
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<tr>
<td>Personnel</td>
<td>Lack of culturally or linguistically diverse personnel</td>
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<tr>
<td></td>
<td>Lack of or limited access to specialized personnel (e.g., related service providers, interpreters, mental health professionals, school or VR counselors)</td>
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<tr>
<td></td>
<td>Multiple responsibilities for personnel (due to shortages)</td>
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<tr>
<td></td>
<td>Retention (higher pay in urban areas)</td>
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<tr>
<td>Services</td>
<td>Access to dependable internet services or cellular service</td>
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<tr>
<td></td>
<td>Distance to or lack of community agencies</td>
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<tr>
<td></td>
<td>Distance to or lack of supported employment services</td>
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<tr>
<td></td>
<td>Duplication of services or uncoordinated services across agencies and within schools</td>
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<tr>
<td></td>
<td>Limited career and technical education course options</td>
</tr>
<tr>
<td>Transportation</td>
<td>Limited or no public transportation</td>
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<tr>
<td></td>
<td>Long distances to education, employment, and service opportunities after high school</td>
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<tr>
<td></td>
<td>Long distances to work or other community experiences during school day</td>
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<tr>
<td></td>
<td>Travel time for VR counselors or other service providers to meet with students and families</td>
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<tr>
<td>Cultural</td>
<td>Adolescent pregnancy</td>
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<tr>
<td></td>
<td>Fear of reduction in government benefits, if employed</td>
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<td></td>
<td>Generational poverty</td>
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<td></td>
<td>Incarceration</td>
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<tr>
<td></td>
<td>Limited educational experiences in some families</td>
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<tr>
<td></td>
<td>Limited exposure to a variety of careers</td>
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<tr>
<td></td>
<td>Responsibilities at home (agricultural, child care, family business)</td>
</tr>
</tbody>
</table>

Note. VR = vocational rehabilitation.
matching (Gemici, Rojewski, & Lee, 2012). All these designs allow researchers to identify causal links between interventions and outcomes. Third, research must focus on the understudied areas of family involvement and interagency collaboration. Although each is a predictor of improved postschool outcomes, neither has a set of practices that can be used to make them happen. Fourth, focus on scaling-up and sustaining what we know works. Although individual secondary transition practices and predictors are known, little is known about how to combine these into curriculum or programmatic practices as well as how to sustain their practices when their implementers change jobs or retire. Finally, there needs to be additional longitudinal research tying practices to student postschool outcomes. The fact that Cobb et al. (2013) found only 16 studies that met the WWC standards in their review of the literature confirms this need.

Data-Based Decision Making Tools

To help practitioners with DBDM, there is already an emerging set of DBDM tools that can be used for program improvement. Each of these tools is briefly described in Table 2. Most of these tools begin the process by having participants review their data on Indicators 1, 2, 13, and 14. In addition, other data from VR and Career-Technical Education may also be reviewed. Once program strengths and gaps are identified, improvement strategies are often tied to predictors (Test, Mazzotti, et al., 2009) and/or practices (Test, Fowler, et al., 2009).

In addition to the DBDM tools described in Table 2, practitioners will soon have a Secondary Transition Fidelity Assessment (STFA) to use. The STFA is being developed jointly by NTACT and the Division for Career Development and Transition within the Council for Exceptional Children. Once validated, the STFA will allow professionals to evaluate the level of transition services offered to all high school students in the areas of Adolescent Engagement and Development, Professional Capacity, Family Engagement, Community Engagement, School-Level Capacity, and District-Level Capacity.

Fully Prepared Professionals

With the emergence of secondary transition evidence-based practices and predictors, transition practitioners can now look for and use practices that have the best available research evidence. They have classroom and community-based instructional practices designed to teach such skills as academic, employment, social, community living, and self-determination based on high-quality experimental research. They can identify programmatic factors related to improving postschool outcomes such as work-based learning experiences, family involvement, interagency collaboration, and inclusion in general education based on high-quality correlational research. Finally, they can identify school completion practices that increase graduation rates and decrease drop-out rates, as well as VR practices that lead to increased competitive, integrated employment.

However, to participate effectively in the DBDM process, transition professionals must be fully prepared. Personnel preparation can occur both prior (preservice) and/or during

### Table 2. Examples of Secondary Transition Data-Based Decision-Making Tools.

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Predictor Implementation Self-Assessment (PISA)</strong></td>
<td>A checklist to assist schools, districts, or other stakeholders to determine the degree to which their program is implementing secondary transition predictors likely to lead to more positive postschool outcomes for students with disabilities. <a href="https://transitionta.org/sites/default/files/Predictor_Self-Assessment2.0.pdf">https://transitionta.org/sites/default/files/Predictor_Self-Assessment2.0.pdf</a></td>
</tr>
<tr>
<td><strong>Drop-Out Prevention Tools</strong></td>
<td>A set of tools to help schools conduct a root cause analysis of factors that affect school completion rates. <a href="https://transitionta.org/datatools">https://transitionta.org/datatools</a></td>
</tr>
<tr>
<td><strong>State Toolkit for Examining Post-School Success (STEPSS)</strong></td>
<td>A web-based tool to support using SPP/APR Part B Indicators 1, 2, 13, and 14 data to improve secondary transition programs. <a href="https://transitionta.org/sites/default/files/dataanalysis/STEPSS_Facilitator.pdf">https://transitionta.org/sites/default/files/dataanalysis/STEPSS_Facilitator.pdf</a></td>
</tr>
<tr>
<td><strong>Transition Gradebook</strong></td>
<td>A tool to help schools track data related to evidence-based transition activities provided to students. <a href="https://transitionta.org/dataanalysis">https://transitionta.org/dataanalysis</a></td>
</tr>
<tr>
<td><strong>TransitionProgramTool.org</strong></td>
<td>An electronic system for evaluating and improving programs based on the Taxonomy for Transition Programming 2.0 (Kohler et al., 2016). <a href="http://transitionprogramtool.org/">http://transitionprogramtool.org/</a></td>
</tr>
</tbody>
</table>

*Note. SPP/APR = State Performance Plan/Annual Performance Reports.*
(in-service) employment. Ideally, fully prepared transition professionals would start with preservice preparation and have ongoing in-service training available to them once employed. Unfortunately, recent research indicates preservice educator preparation programs may not be doing their job (Morningstar, Hirano, Roberts-Dahm, Teo, & Kleinhammer-Tramill, 2018). In this national sample of educator preparation programs (N = 140), results indicated only 46% offered a stand-alone transition course and only 45% had faculty who specialized, or conducted research, in secondary transition. One reason for the lack of emphasis on secondary transition on in-service training programs might be the lack of professional licensure or certification. For example, Simonsen, Novak, and Mazzotti (2018) found only nine states had a secondary transition credential option for professionals in special education, five states in career-technical education, and three states in VR. In all states, the secondary transition credential had to be added to an initial license or certificate.

Given the paucity of preservice options in secondary transition, in-service training will be needed to fully prepare secondary transition professionals. Although this option has not been well studied, recently Morningstar, Clark, and Holzberg (2017) conducted a literature review to identify research-based features of secondary transition professional development. As only four professional development intervention studies focused on secondary transition for professionals serving students with disabilities were found, the review was expanded to special education professional development studies conducted in high schools. Based on their findings, the researchers found four essential features that positively influence teachers: (a) coaching and feedback through sustained engagement (e.g., in person, phone, online); (b) collective participation among teachers (e.g., applied practice, modeling, feedback, collaboration); (c) consistent “manualized” content and training (e.g., point media, in person); and (d) embedded active learning (e.g., group activities, discussion, problem-solving). Without fully prepared transition professionals, the coming era of DBDM will fail.

**Integrated Transition Services**

Preparing students for success in college and careers is the purpose of public education, as reflected in both the reauthorized Every Student Succeeds Act (ESSA; 2015) and IDEA (2004). Because of this, transition services for students with disabilities must be viewed within the continuum of preparing all secondary students for postschool success. To make this happen, Morningstar, Lombardi, Fowler, and Test (2017) offered a framework for inclusive college and career readiness consisting of six domains: (a) academic engagement, (b) mind-sets, (c) learning process, (d) critical thinking, (e) interpersonal engagement, and (f) transition competencies. Integrating transition services and instructional practices within the high school context for all students to address these domains should ensure more students are prepared for success beyond graduation. For example, a school climate that promotes a sense of belonging and ownership of learning would foster those skills for many students, but might be more explicitly offered or taught through enrollment in extracurricular activities or explicit instruction on goal setting for other students. Transition competencies such as knowledge of college admissions requirements or interview skills might be addressed through a single meeting with a school counselor, or an entire course, focused on transition competencies.

Determining the level of support and service students need to prepare for success after school defines effective transition planning. Integrating transition services will mean applying a college and career ready mind-set to tiered interventions for academic and behavior supports (multitiered systems of support [MTSS]) in high schools. Such a model will require the use of DBDM through examination and use of student data regarding the identified academic and nonacademic factors in the framework. By frequently monitoring student performance across the array of factors that lead to success after high school, and matching students with appropriate services or supports relevant to their postschool goals, all students will be better served in high schools.

**Coordinated and Seamless Interagency Collaboration**

The call for seamless interagency is not new. Rusch and Braddock (2004) suggested all students (a) leave high school competitively employed or admitted to postsecondary education, and (b) have access to necessary interagency supports to allow them to succeed, as possible solutions to poor postschool outcomes. In 2009, Test, Mazzotti, et al. identified interagency collaboration as a potential predictor of improved postschool outcomes in the areas of education and employment. Unfortunately, Test, Fowler, et al. (2009) did not identify any evidence-based practices to help practitioners make interagency collaboration happen.

Although no evidence-based interagency collaboration interventions exist, three models do have some level of evidence to support them. First, Oregon’s Youth Transition Program (YTP) provides interagency collaboration services, including (a) transition planning, (b) educational support and instruction, (c) employment services, (d) one-on-one individualized support, and (e) placement in postschool competitive employment or education. Although few empirical studies exist on the YTP, Benz, Lindstrom, and Latta (1999) reported descriptive data indicating YTP youth with disabilities experienced better employment outcomes than those who did not participate in the program. In a later study to identify factors that contributed to the sustainability of YTP (Benz, Lindstrom, Unruh, & Waintrup, 2004), results indicated three programmatic factors critical for sustaining transition programs: (a) support from at least one key administrator, (b) student outcomes are valued by
school and community stakeholders, and (c) program provides unique services that meet a district need.

Second, the Maryland Seamless Transition Collaborative (MSTC; Luecking & Luecking, 2015) model provides “seamless connections to work support and postsecondary education well in advance of secondary school exit” (p. 5). The MSTC flowchart starts with student services in 10th grade and continues 2 years beyond graduation. Preliminary results indicated MSTC students were actively engaged with both VR and community rehabilitation providers.

Finally, CIRCLES (Communicating Interagency Relationships and Collaborative Linkages for Exceptional Students) is the first model of secondary transition interagency collaboration to be supported by high-quality experimental research (Flowers et al., 2017). Results of this randomized control trial study indicated students who received CIRCLES support had higher levels of self-determination and greater IEP participation than students in the business-as-usual condition. The CIRCLES model of interagency collaboration involves three levels including a community team, a school team, and an IEP team.

The need for schools to implement empirically driven models of interagency collaboration is even more critical with the passage of the Workforce Innovation and Opportunity Act (WIOA; 2015). WIOA requires state VR agencies to allocate 15% of their budget to coordinate with local education agencies to provide preemployment training services (pre-ETS) to students with disabilities. The required pre-ETS include (a) job exploration counseling, (b) work-based learning experience, (c) counseling on opportunities for postsecondary training, (d) workplace readiness training, and (e) self-advocacy. The required VR—school system collaboration for providing these pre-ETS should be an excellent vehicle for ensuring all students with disabilities have access to evidence-based practices (Test, Fowler, et al., 2009) and predictors (Test, Mazzotti, et al., 2009). By implementing a strategy for providing interagency collaboration, schools will have a formal process for including community agencies in their DBDM process.

Empowered Students and Families

Family engagement and student level of self-determination are each predictors of postschool success (Test, Mazzotti, et al., 2009). In addition, student engagement and a school climate that empowers families have been found to lead to successful school completion (Wilkins & Bost, 2016). Parents and families with a sense of efficacy regarding their child’s education and services are more likely to contribute to decisions and solutions (Hoover-Dempsey & Sandler, 1995), and students with increased involvement in the planning process are more likely to achieve their goals (Martin et al., 2006). Although inviting student and parents to IEP meeting are required by IDEA (2004), engagement in transition planning and services must be considered more than attending an IEP meeting. However, secondary school is often when parents and families become less involved in their child’s education (Hill & Chao, 2009).

Students and families are empowered when they are informed and engaged in the decision-making process. For some families and students, the information and the decision making might be specific to that individual student through the transition-assessment process and within the IEP meeting. For other families, the information and decision making might be in the context of a program-, school-, or community-level team. In addition, some students and families will require little support or preparation to access information on the current education environment or opportunities and services beyond high school. Others will require explicit and repeated delivery of information, due to either the student or family’s capacity to navigate this information or the amount of services and supports a student is going to need beyond high school. Inviting and preparing students and families to actively participate in decision making is critical to the success of any program—student-level or system-wide.

Knowledge and use of data sources are an important part of the decision-making process. It is incumbent upon school and agency professionals to share student performance, as well as school or agency program data, in usable formats in meetings and conversations with students and families. Students and families should be engaged as stakeholders, contributing their perspectives and expertise to the analysis of the data, not only as consumers of final reports. This requires education regarding the data sources (e.g., behavioral observations, formal assessment results, aggregated performance data from a program) as well as modeling the use of these data to inform decisions regarding instructional and program planning practices. In the era of DBDM, family and student engagement must focus on contributing, examining, and using data to prepare students for post-school success.

Implications for Providing Transition Services in Rural Areas

Each of the components needed for an era of DBDM have implications for providing transition services in rural areas. The following section offers some potential solutions.

High-quality research. Results of intervention and correlational research should expand the body of effective practices available to implement at the secondary level in all communities. By attending to variables regarding setting and community type, effective practices that are specific to implementation in rural communities should also be identified. Conducting research to address issues of scaling-up practices into programs and systems, as noted, could also
address concerns regarding professional capacity and turnover in rural communities. Conducting research on and then identifying effective practices to increase access to work-based learning experiences, transportation solutions, use of technology to increase opportunities, as well as effective strategies for engaging with families and collaborative service delivery in rural communities could address some of the current, perceived barriers to success. In addition to conducting and disseminating the results of high-quality research, it is necessary that dissemination focus on usability of findings in rural areas by rural practitioners.

**Data-based decision making.** Use of data at all levels of the system to drive improved practice and programs and responsive programming and interventions may serve to identify needed resources in rural communities. The tools listed in Table 2 may be used to track student, school, program, and community-level data about implementing effective practices with and for students and their families. Data tools may also help systems-level interagency teams or councils identify duplications or gaps in services, when infrequent face-to-face communication does not allow for a quick observation of such duplications or gaps. As research provides more information regarding effective practices, the current array of available tools will advance. Collecting and using those data can inform gaps, policies, programs, and funding to enhance services and opportunities in rural communities.

**Fully prepared professionals.** It is critical that professionals serving rural communities have access to the same high-quality resources as urban and suburban communities. Findings from high-quality intervention research must be converted to accessible resources and guidance for practitioners to implement identified effective practices. Particularly, due to the sense of isolation experienced by professionals in some remote areas, the findings of Morningstar, Clark, et al. (2017) should guide efforts to sustain and improve staff capacity in rural communities. Providing coaching and feedback, using phone and online communication, or developing a process for a cohort of professionals across a state to apply a new practice and provide feedback for one another may be effective strategies for quality professional development and technical assistance in rural areas. Regions or districts may establish regular meeting times for interdisciplinary groups of professionals to collaborate and plan implementation of effective practices and programs. Challenges of distance may be mitigated by using technology-supported technical assistance to local practitioners by state agencies, regional offices, and institutes of higher education. It will also be critical that professionals in specialized areas within special education and disability services be provided incentives to focus their services in rural communities.

**Integrated transition services.** By approaching transition services from a lens of multitiered systems of support, school systems and communities with limited resources in the current structure may find they are able to engage more students in activities that will prepare them for college and career success than they realized. If a school takes a MTSS view of transition planning, services such as college planning and career assessments for all students may address the needs of some students with disabilities. Relatedly, WIOA resources made available through a VR counselor, may address the need of some students without IEPs or 504 Plans. Although integrated transition services will not move people closer together or magically increase job growth in rural areas, it may assist a community to plan more strategically about the career and technical education course sequences offered or initiate a new effort to partner with family-run businesses or create school-run businesses to offer all students exposure to careers.

**Coordinated and seamless interagency collaboration.** Effective strategies for collaboratively delivering services will be key to addressing challenges to successful student outcomes in rural communities. Whether broad collaboration across systems to organize transportation options or implementing the models described earlier to link individual students with employers, colleges, activities, and services, collaboration will be key to addressing the reduced resources available in many rural communities.

**Empowered students and families.** To overcome some of the barriers practitioners identified regarding cultures and subcultures in rural communities, students and families must be educated about the options available and possibilities for young people with disabilities. Empowering families by engaging them in student and strategic systems-level planning will be critical to improving the trajectory for students with disabilities in rural areas. Engaging students and families at elementary, middle, and high school grades in decision making and goal setting will be critical to overcoming barriers regarding expectations and opportunities.

**Conclusion**

Compared with other areas of special education, secondary transition is still a youngster. Although we know more than ever about what needs to happen to improve postschool outcomes for all students with disabilities, the coming era of DBDM has the potential to help rural school systems use data to plan and evaluate their implementation of evidence-based practice and predictors designed to provide all students with the skills to succeed in adulthood. When we have transition services integrated into the fabric of all rural high schools, fully prepared professionals, coordinated and seamless interagency collaboration, and empowered students and families, it will mean a brighter future for all.
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