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LEVERAGING WORKING CONDITIONS TO IMPROVE THE QUALITY AND EFFECTIVENESS OF THE SPECIAL EDUCATION TEACHER WORKFORCE

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Students with disabilities depend on special education teachers (SETs) to provide high-quality instruction and behavior management to meet their academic and social-emotional needs (Kauffman & Landrum, 2018); in turn, SETs depend on working conditions that aid them in fulfilling their roles and responsibilities (Cumming et al., 2020). The Individuals with Disabilities Education Improvement Act (IDEA, 2004) requires schools to provide students with research-supported services for their specific needs. For instance, students with emotional and behavioral disorders (EBDs) require highly effective behavior management practices (e.g., behavior contracts) to increase positive behaviors (Kauffman & Landrum, 2018), as well as evidence-based academic instruction that includes opportunities to respond and high rates of feedback (Common et al., 2020). These well-researched practices should inform the provision of school-based services, yet observational studies indicate SETs seldom enact effective practices with the frequency and intensity students require (e.g., Kurth et al., 2016; Wexler et al., 2018).

Working conditions present a potential lever by which leaders and policy makers could improve SETs' capacity to enact effective practices in service of students with disabilities (e.g., Billingsley et al., 2020). By working conditions, we mean SETs' perceptions of the context of their work, a manifestation of the school's organization in SETs' experiences (Billingsley et al., 2020). A growing body of research in educational leadership and policy highlights working conditions as a key contributor to the quality and effectiveness of the teacher workforce (e.g., Johnson et al., 2012), including the SET workforce (Bettini et al., 2016). For instance, administrative support and school culture are associated with student learning gains, as measured through value-added scores (Johnson et al., 2012), and working conditions contribute to improvements in teachers' effectiveness over time (e.g., Kraft & Papay, 2014). These findings have led to increasing interest in leveraging working conditions to improve the SET workforce, and thereby outcomes among students with disabilities (Billingsley et al., 2020).

Thus, our aim is to elaborate on mechanisms by which working conditions shape the quality and effectiveness of the SET workforce, as these can yield insights into how working conditions might be enhanced to better support SETs in providing effective services to students with disabilities. We first

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conceptualize and define SETs working conditions, provide an overview of the historical context for working conditions research, and highlight what is currently known about SETs' working conditions. We then describe extant research on how these conditions may affect students with disabilities. Finally, we provide implications for practice and research.

Conceptualizing and Defining Special Education Teachers' Working Conditions

To conceptualize working conditions, we rely on conservation of resources (COR) theory, which was developed by organizational researchers who posited that individuals pursue personal and organizational goals by strategically deploying their resources (e.g., Hobfoll et al., 2018). In COR theory, resources may be the objects, conditions, and characteristics an employee values or uses to fulfill their role (e.g., time, social capital; Halbesleben et al., 2014; Hobfoll et al., 2018). When the demands of their job are balanced with their resources, employees feel they can manage responsibilities and experience positive affective outcomes (e.g., commitment). Yet when they experience prolonged periods of high demands and low resources, the result is higher than optimal stress and reduced job commitment (Alarcon, 2011). Backed by meta-analyses, COR theory has explained burnout (i.e., a consequence of prolonged stress) across varied workplaces (Halbesleben, 2006; Hobfoll et al., 2018) and has also recently been used to explain SETs' attrition, intent to stay, and use of instructional practices (e.g., Cumming et al., 2020).

We define SETs' working conditions as including a variety of resources that SETs actively pursue and protect, as well as demands they are expected to meet. Based on prior research (e.g., Bettini et al., 2016), we posit salient demands include paperwork, instructional responsibilities, instructional grouping, paraprofessional supervision, and extra responsibilities (e.g., administrative tasks). These studies indicate SETs depend on three kinds of resources: (a) social resources (e.g., administrative support, collegial support, paraprofessional support, school culture, and autonomy); (b) informational resources (e.g., professional development [PD] and mentoring); and (c) logistical resources (e.g., planning time and curricular resources).

Ecological systems theory (Bronfenbrenner, 1992) posits various ecosystems (e.g., school, society, culture) interact with and influence each other to affect an individual's life and development. From this perspective, SETs' experiences of working conditions are a result of the characteristics of educational ecosystems. For example, SETs are assigned specific grades and subjects to teach, as well as planning time by administrators based on the school's structure and student needs, provided resources (e.g., curricula) based on district funding, and mandates based on policy. These, in turn, affect SETs' demands and resources, as well as their outcomes (Brunsting et al., 2014). Thus, SETs' demands and access to resources are shaped by characteristics and choices made at the classroom, school, district, and state levels.

Historical Context of Special Educators' Working Conditions

Researchers have examined SETs' working conditions for over 40 years, often rooted in addressing the critical shortage of qualified SETs and their persistently high attrition rates (Billingsley et al., 2020). The earliest studies began shortly after the passage of the P.L. 94–142, in 1975. Following passage of the first legal mandates for special education, SETs' roles rapidly evolved, dramatically changing their responsibilities, resources, and expectations for collaboration (Weatherley & Lipsky, 1977). During this period, the number of students with disabilities served in U.S. schools grew, increasing demand for SETs (Dewey et al., 2017). The result was a "severe, chronic, and pervasive" shortage of SETs (McLeskey & Billingsley, 2008, p. 295).

Over the last few decades, professional organizations (e.g., Council for Exceptional Children) and researchers have continued to highlight the need to improve SETs' working conditions (e.g., Kozleski et al., 2000), which they posited would reduce SET attrition, and thereby reduce shortages (Billingsley et al., 2020). Yet in the only study examining changes in SETs' working conditions over time (using nationally representative Schools and Staffing Survey data), Gilmour et al. (in press) determined demands increased significantly over time: SETs in 2016–2017 reported working more hours and serving larger caseloads than SETs in 1999–2000. However, SETs in 2016–2017 also reported stronger administrative support, cooperation with colleagues, and access to material resources than SETs in 1999–2000, indicating some improvements. While promising, improvements in access to certain resources may be inadequate, as evidenced by the ongoing SET shortage, with high attrition rates constituting a substantial contributor to the shortage (Goldhaber et al., 2018; Theobald et al., 2020). For example, Theobald et al. (2020) found only 40% of SETs who entered teaching in 2010 were still teaching 6 years later. Thus, substantial concerns about SETs' working conditions remain (Fowler et al., 2019).

Current State of Special Education Teachers' Working Conditions

SETs' current working conditions can fluctuate due to shifting social conditions, new policies, changing labor markets (Mason-Williams et al., 2020), and a number of personal and contextual factors (Scott et al., 2020). The factors that contribute to SETs' demands and resources includes but are not limited to (a) whether they serve in a high- or low-poverty school (Fall & Billingsley, 2011); (b) whether they work in rural or urban settings; (c) their service delivery model (Bettini et al., in revision); and (d) needs of students (Gilmour & Wehby, 2020). Focusing on recent studies, we review the current state of SETs' working conditions, highlighting demands and social, logistical, and informational resources.

Demands

SETs experience complex demands associated with their overlapping roles in (a) providing academic and behavioral instruction, (b) collaborating with colleagues, and (c) managing caseloads (Bettini et al., 2022). For example, to fulfill their instructional roles, SETs often teach smaller instructional groups (e.g., 10.38 students with individualized education program [IEPs], 12.66 including students with 504 plans; Giangreco et al., 2013) than general educators, but these groups tend to be highly heterogeneous, including students with varied instructional needs from varied grades (O'Brien et al., 2019). For instance, in a survey of 577 SETs from 221 districts in the United States, Leko et al. (2018) found SETs taught students who received services under, on average, 4.74 different disability labels, while SETs in O'Brien et al.'s (2019) survey reported being responsible for teaching 9 distinct subject/grade combinations. Consequently, SETs' responsibilities include planning lessons across many subject areas and grade levels, often in collaboration with many colleagues (Leko et al., 2018; O'Brien et al., 2019). Thus, SETs spend significant time on work responsibilities outside of work hours. For example, Bettini, Gilmour, et al. (2020) found the average SETs reported working more than 50 hours per week, far exceeding the contractual school day.

Social Resources

SETs depend on social resources, the supports provided by other educators (e.g., administrators, colleagues), school collective culture, and autonomy (the extent to which social context affords latitude to make decisions; Bettini et al., 2016; Billingsley et al., 2020). SETs often report moderate to high mean levels of administrator support (Albrecht et al., 2009; Bettini, Gilmour, et al., 2020; O'Brien

et al., 2019), collegial support (Albrecht et al., 2009; Bettini, Gilmour, et al., 2020), and paraprofessional support (e.g., O'Brien et al., 2019). For example, in their 2017–2018 national survey, O'Brien et al. found SETs reported between half and most of their colleagues promoted a school culture supportive of students with disabilities. Further SETs perceived, on average, high levels of autonomy, reporting "a lot of control" over planning, teaching, and disciplining students (O'Brien et al., 2019). There is evidence, however, that SETs in higher poverty schools may experience weaker social resources (Fall & Billingsley, 2011), possibly due to higher personnel turnover (Béteille et al., 2012; Johnson et al., 2012), which could disrupt development of strong social support systems in schools (Simon & Johnson, 2015).

Informational Resources

SETs rely on formal PD and mentoring to receive timely and quality instructional guidance. However, in their national survey of SETs serving students with EBDs in self-contained settings, O'Brien et al. (2019) found that SETs reported participating in required PD fewer than one to three times per month, and, on average, they neither agreed nor disagreed with items representing indicators of PD quality, implying that they had limited access to PD and felt existing PD was mediocre. Similarly, in their survey of secondary SETs, Leko et al. (2018) determined SETs reported slightly fewer than 3 hours of PD focused on adolescents with disabilities, with less time devoted to literacy. No comparable recent data are available on rates of mentoring, though an analysis of a national sample of SETs from 1999 to 2000 revealed, encouragingly, that SETs in higher poverty districts (>39% students in poverty) had greater access to a formal mentoring program than SETs in lower poverty districts (Fall & Billingsley, 2011); however, these data are quite dated.

Logistical Resources

SETs rely on logistical resources, which include time for planning and material resources, to fulfill their responsibilities (Billingsley et al., 2020). In a national survey of SETs serving students with EBDs, SETs reported that they "seldom" to "sometimes" had adequate time to plan (O'Brien et al., 2019). These findings are perhaps unsurprising given that SETs spent, on average, 9.83 hours per week outside of their scheduled workday on planning and preparation (O'Brien et al., 2019). Similarly, in an earlier survey of SETs serving students with EBDs, the majority of SETs also rated their available time for paperwork as below satisfactory (Albrecht et al., 2009). Further, most SETs reported insufficient access to adequate curricular resources (Albrecht et al., 2009; O'Brien et al., 2019). In a nationally representative survey, SETs rated access to curricular resources slightly better, saying that they "somewhat agree" that they had necessary materials (Bettini, Gilmour, et al., 2020). Overall, although SETs indicate more positive experiences related to social resources, they continue to face high demands and weak logistical resources—substantial challenges to providing instruction and supports to students with disabilities.

Pathways Through Which Working Conditions Affect Students With Disabilities

COR theory (Hobfoll et al., 2018), ecological systems theory (Bronfenbrenner, 1992), and extant research highlight several pathways by which working conditions may affect students with disabilities via their SETs (Billingsley et al., 2020). First, working conditions affect SETs' opportunities to learn and enact effective practices, as well as their stress and burnout. By affecting individual SETs, working conditions can shape the quantity and quality of services they provide. Second, working conditions contribute to SETs' retention, thereby affecting (a) the size and quality of the SET workforce

and (b) SETs distribution across schools, districts, and regions. By affecting who teaches where (e.g., high-poverty schools) and for how long (e.g., becoming experienced teachers), working conditions have the potential to increase the likelihood that students will be served by a well-qualified, experienced SET. These pathways are displayed in Figure 6.1, and we explain them in detail next.

Individual Effects

Working conditions shape individual SETs' experiences in their schools, including their opportunities to learn and enact effective practices (Bettini, Cumming, et al., 2020), as well as their stress and burnout (Brunsting et al., 2014; Cumming et al., 2020).

Opportunities to Learn and Enact Effective Practices

To effectively serve students with disabilities, SETs must know how to skillfully enact effective practices for academic instruction, behavior, social-emotional instruction, assessment, and collaboration (McLeskey et al., 2017). Thus, they need opportunities to learn (Brownell et al., 2010). In traditional preparation programs, SETs learn effective practices (Leko et al., 2015), but they still need opportunities to continue developing skill in using these practices throughout their careers. Further, opportunities to learn effective practices are insufficient without opportunities to enact those practices in service of students (Billingsley et al., 2020).

PD provided by the school or district is one of the most obvious working conditions intended to support SETs' learning (Billingsley et al., 2020). Though PD is an essential mechanism for developing skills, extant research indicates that access to multiple social and logistical resources may also shape SETs' learning and enactment of practices. First, researchers have learned that informal interactions with colleagues are a crucial source of teacher learning (e.g., Sun et al., 2017). For example, Sun et al. (2017), examining how teachers' instructional effectiveness (measured by students' standardized tests gains) changed over time, found the addition of a more effective teacher to a grade-level team resulted in "spillover" effects. When a highly effective teacher joined a team, other teachers became more effective, indicating teachers learn through team interactions (Sun et al., 2017). Although no large-scale studies have examined effects of interactions with colleagues on SETs' instructional effectiveness, extant studies confirm the importance of instructional interactions for SETs' instruction (Bettini et al., 2016). Further, collegial interactions may support SETs' opportunities to enact effective practices; for example, SETs in inclusive settings may depend on colleagues to ensure they have dedicated time with their students (Olson et al., 2016).

Second, extant research indicates school culture may play a crucial role in fostering positive interactions among teachers, such that teachers become more effective when they work in schools with positive and collaborative cultures (e.g., Ronfeldt et al., 2015). For example, Kraft and Papay (2014) determined new teachers became more effective (measured by students' achievement gains) over time, and their rate of growth was partly explained by their school's professional environment (a composite working conditions measure). There is no comparable research with SETs (Bettini et al., 2016), but case studies of inclusive schools suggest school culture is likely as important (e.g., McLeskey et al., 2014).

Third, curricular materials provide teachers guidance regarding academic content, how students learn content, and effective instructional practices to support learning (Ball & Cohen, 1996), with extant research indicating teachers may learn through interactions with curricular materials (e.g., Jackson & Makarin, 2016). For example, Jackson and Makarin (2016) conducted a randomized controlled trial evaluating how general educators' math instructional effectiveness changed in response to receiving lesson plans introducing new math content. Results were significant and meaningful,

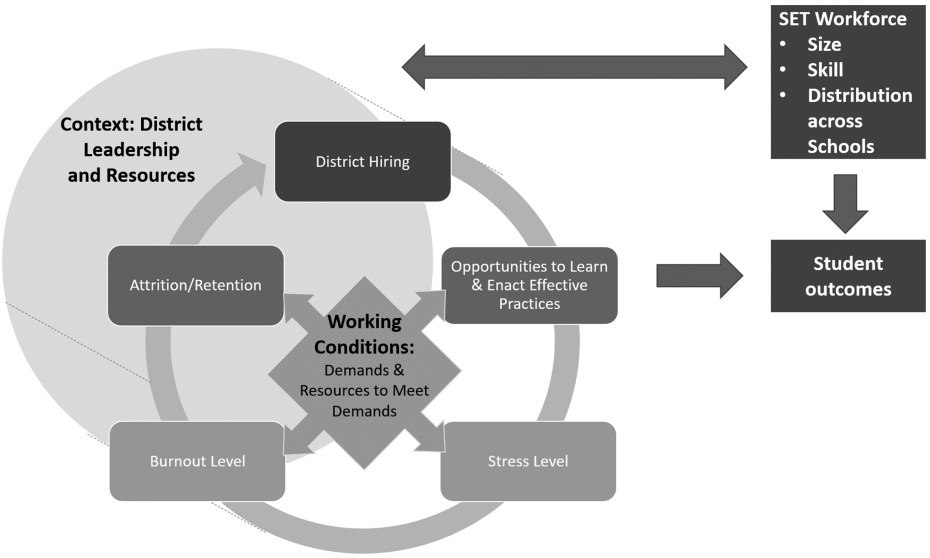

Figure 6.1 Mechanisms by Which SETs' Working Conditions May Contribute to Student Outcomes

with especially strong effects for teachers who were least effective initially. Though comparable studies have not been conducted with SETs, extant research indicates SETs may also learn new practices through curricular materials. For example, in a qualitative study, Siuty et al. (2018) found SETs who had access to research-based reading curricula were able to learn about and develop more accurate conceptions of their students' needs; further, curricula provided clear guidance on intensifying instruction, which led them to focus more on foundational skills than other SETs. Further, teachers often enact practices embedded in curricular materials, regardless of whether those practices align with what they know about effective instruction (e.g., Grossman & Thompson, 2008), suggesting quality curricular resources may support enactment of effective practices with students with disabilities.

Fourth, planning time may provide opportunities for SETs to enact effective practices by providing them dedicated time to examine goals, select or alter curricular materials, and make sense of student data (Bettini et al., 2016). Few studies have examined planning time, but extant research suggests it is important (Bettini et al., 2016). For example, Allinder (1996) examined factors differentiating SETs who enacted a newly learned practice with high vs. low fidelity; their ratings of planning time were the only significant differentiating factor, suggesting planning time may support integration of newly learned practices into SETs' instructional repertoires. Further, SETs report planning time contributes to their instruction (Bettini, Wang, et al., 2019) and that, without adequate planning time, they sometimes use instructional time for planning (Vannest et al., 2010). Thus, planning time may be essential for enacting effective practices.

Stress and Burnout

Working conditions may also contribute to negative affective outcomes for SETs, including stress and burnout (Bettini, Cumming, et al., 2020; Brunsting et al., 2014). Burnout is a condition characterized by emotional exhaustion, cynicism, and reduced sense of personal accomplishment, which occurs when prolonged stress exhausts one's resources to cope (Brunsting et al., 2014; Garwood

et al., 2018). Burnout is associated with consequential educational processes (e.g., Oakes et al., 2020). For example, Wong et al. (2017) examined how burnout related to teaching quality and student outcomes among 79 SETs teaching students with autism spectrum disorders. They found SETs who experienced higher overall stress provided lower-quality instruction (as assessed by the Teacher Behavior Scale) and were less effective in engaging their students, while those who were more emotionally exhausted and demonstrated higher depersonalization had students who were less likely to achieve IEP goals.

Importantly, ample research indicates a range of working conditions are related to stress and burnout (e.g., Brunsting et al., 2014). For example, SETs may experience higher emotional exhaustion when they have inadequate planning time (Bettini, Cumming, et al., 2020), conflicting or ambiguous role expectations (Garwood et al., 2018), or insufficient collegial and administrative support (Zabel & Zabel, 2002). Thus, improving working conditions may indirectly affect students' experiences and outcomes by decreasing the likelihood SETs will experience burnout, and thus increasing the likelihood SETs will enact effective practices.

Size, Composition, and Distribution of the Special Education Teacher Workforce

Working conditions consistently predict attrition and intent to leave a career (Nguyen et al., 2020), including among SETs (Billingsley & Bettini, 2019). A robust and growing body of research conducted over the past 30 years consistently indicates that SETs who experience less supportive conditions (higher demands, weaker resources) are more likely to intend to leave and to actually leave teaching (Billingsley, 2004; Billingsley & Bettini, 2019). Prior studies indicate many working conditions are associated with intent to leave and/or attrition. Social resources (e.g., administrative support) have been examined more often than other working conditions; studies consistently find SETs are more likely to stay and to intend to stay when they experience supportive administrators, positive interactions with colleagues, and school cultures of collective responsibility for students with disabilities (Billingsley & Bettini, 2019). Other relevant working conditions include caseload characteristics (Gilmour & Wehby, 2020), paperwork (Albrecht et al., 2009), planning time (Bettini, Cumming, et al., 2020), and PD (Albrecht et al., 2009). Recent research suggests workload manageability—SETs' perceptions that they can manage demands with available resources—mediates relationships between working conditions and intent to leave, supporting the major tenets of COR theory (Bettini, Cumming, et al., 2020).

To our knowledge, no extant research has documented effects of SET attrition on students with disabilities (Billingsley & Bettini, 2019), but studies with general educators find significant effects. Ronfeldt et al. (2013) analyzed administrative data from the New York City school district, examining effects of teacher attrition on students' academic gains. They found that in grades with more turnover, students had significantly lower achievement compared to grades with lower turnover and compared to the same grade in a different year with lower turnover (Ronfeldt et al., 2013). McLeskey and Billingsley (2008) posited that these effects may be magnified among SETs, as their work involves collaboration with families and other educators; thus, when they leave, many collaborative relationships are disrupted, potentially amplifying the effects of their attrition.

In addition to direct effects on students, by contributing to SET attrition, working conditions are likely related to the (a) size, (b) composition, and (c) distribution of the SET workforce (Figure 6.1). First, attrition contributes to the shortage, which has been defined as "a shortage of fully qualified SETs who are willing to work for the wages we are able to pay and under the conditions we currently are able to provide in schools" (Mason-Williams et al., 2020, p. 56). Due to the shortage, administrators may struggle to replace SETs who leave. In 2016–2017, 38% of SETs worked in

schools where administrators reported having a difficult-to-fill position (Gilmour et al., in review). Difficulties replacing SETs who leave may be magnified in high-poverty schools (Goldhaber et al., 2018), rural schools (Berry et al., 2011), and special education schools (Mason-Williams et al., 2017) and in positions serving students with certain disabilities (Berry et al., 2011), all of which tend to experience more substantial shortages. For example, Berry et al. (2011) surveyed 373 special education administrators in rural districts and found 72% reported problems filling vacancies for SETs who left, with particular difficulties replacing SETs serving students with autism, EBDs, severe/multiple disabilities, and sensory disabilities.

Second, the shortage, in turn, shapes the quality of the SET workforce, as administrators most often hire less experienced personnel to fill vacancies, a great concern given that teachers become more effective with more experience (e.g., Feng & Sass, 2013). Because of the ongoing shortage, a SET's decision to leave can place school leaders in the position of needing to hire less qualified personnel to replace them (Mason-Williams et al., 2020).

Third, higher-poverty schools often have more challenging working conditions due to resource disparities and, consequently, higher attrition (Simon & Johnson, 2015). Research with general educators indicates resulting patterns of attrition exacerbate teacher quality gaps between high- and low-poverty schools (Goldhaber et al., 2018). Goldhaber et al. used administrative data from two states to examine factors contributing to gaps in students' access to experienced teachers across advantaged versus disadvantaged schools. Over 10 years, discrepancies in rates of attrition from the profession explained about one-third of the disparity in students' access to experienced teachers across schools, while between-district transfers explained about one-third of the disparity, and within-district transfers explained near one-eighth of the disparity. SET turnover overall explained the majority of the disparity in students' access to experienced teachers.

Implications

National and State Policy

Policy initiatives have targeted the national shortage of qualified SETs since the inception of P.L. 94–142 in 1975 (Mason-Williams et al., 2020). Nationally, the Office of Special Education Programs (OSEP) has enacted many policies aimed at recruiting more SETs by, for example, funding teacher and leader training grants, as well as funding centers to support professional learning systems (e.g., teacher preparation, PD, evaluation) for SETs (e.g., Collaboration for Effective Educator Development, Evaluation, and Reform [CEEDAR] Center). At the state level, many states have created incentives to become SETs; for example, Hawaii currently offers $10,000 pay differentials to SETs (Hawaii DOE, 2020). Extant research suggests these efforts have yielded positive benefits (e.g., Feng & Sass, 2017).

However, we contend that these policies are likely incomplete if they do not also address SETs' working conditions (Billingsley et al., 2020). For example, salary incentives are effective at reducing attrition (Feng & Sass, 2017) and should be continued, yet they might induce a burned-out teacher to stay without addressing the causes of burnout, which could limit their utility for improving student outcomes. We recommend that state and national policy complement current policies with initiatives to improve SETs' working conditions.

We recognize that constructing policy to promote stronger working conditions poses a substantial challenge, as working conditions are multidimensional, deeply embedded within particular school and district organizations, and variable across schools and districts. For example, SETs in one district may experience challenges with school cultures that are hostile to inclusion of students with disabilities in general education, while SETs in a neighboring district may experience ample support for inclusion, but insufficient curricular materials for supporting foundational skill instruction. The policies needed in these two contexts would likely differ.

One potential state-level approach would be to systematically and regularly collect data on SETs' working conditions and use this data to target supports to districts to improve specific working conditions.[1] By administering a working conditions survey to all SETs in the state yearly, states could provide all districts with relevant data and share targeted assistance and PD with districts with especially concerning working conditions. Further, states could use the data generated to evaluate intended and unintended effects of other policy initiatives. Whereas prior policies have primarily targeted either recruitment or retention, such an initiative could affect every aspect of the system illustrated in Figure 6.1.

Teacher Educators

Given teacher educators' knowledge, expertise, and experience, teacher educators have a unique opportunity to support preservice SETs to understand and respond to the challenges of using effective practices in current school contexts (Billingsley et al., 2020). Research demonstrates that novice SETs encounter an unexpected range of extra responsibilities that they did not envision as core to their role, and they struggle to navigate these responsibilities within contexts that often do not provide the supports they may expect (Mathews et al., 2017). We encourage teacher educators to provide preservice SETs learning opportunities focused on navigating challenging working conditions and maintaining high instructional quality despite high demands and limited resources.

District and School Administrators

District leaders may leverage working conditions to support SETs in fulfilling their roles and responsibilities, and thereby improve the quality and effectiveness of the SET workforce. First, district administrators should consider collecting data to gain a clear understanding of working conditions SETs experience in their district. We encourage districts to administer yearly a reliable and valid measure(s) of SETs' working conditions, as well as conduct interviews (e.g., exit interviews) to gain insight into current and changing working conditions across the district. Second, we recommend district administrators use data to identify systemic challenges and strengths SETs experience within and across schools in their district. For example, administrators can examine the extent to which SETs in their district have adequate access to social, logistical, or informational resources and target these for improvement as needed. Based on their data, leaders may find they need to adjust district-wide policies (e.g., caseloads), practices (e.g., district PD), and/or funding (e.g., for curriculum) to better support SETs. Third, we suggest district leaders work closely with colleagues and school leaders to collaborate on how best to leverage working conditions. Because school leaders often have limited knowledge on how to lead special education (Petzko, 2008), district leaders may need to provide training, coaching, and support regarding SETs' working conditions.

We encourage school leaders to work closely with SETs to evaluate and improve how they proactively support SETs. For instance, school leaders may find SETs in their schools feel overwhelmed by the demands placed on them. Adding more paraprofessionals may seem like a feasible way to reduce demands, but past research has found that supervising paraprofessionals may constitute an additional demand (Bettini, Cumming, et al., 2020). Thus, administrators should collaborate with SETs to determine what resources will be most helpful for addressing demands. As a proactive approach, school leaders can ensure SETs have access to needed resources at the start of each school year. For example, administrators can ensure the school's master schedule provides collaborative planning opportunities and protected planning time. Similarly, leaders can ensure SETs have access to the same curricular resources as general educators, as well as access to remediated materials for varied

student ability levels. Because school leaders' ability to create a supportive work environment may be limited by funding and district policies, we encourage them to actively engage with district leaders to obtain resources.

Special Education Teachers

Teachers play a critical role in promoting inclusion for students and shaping policy in their schools (Li & Ruppar, 2020). As such, SETs may be a powerful force for improving working conditions in their schools, as they can advocate for the resources they need to effectively serve their students (Bettini, Lillis, et al., 2021). We encourage SETs to document the challenges they experience and communicate these challenges to others in a position to help. For instance, if there is little access to formal mentoring, SETs can actively connect with others who have relevant expertise. SETs who have insufficient planning time or curricular resources can work with administration to communicate why these are important and to find solutions.

However, working conditions are unlikely to change immediately, and SETs who are experiencing stress and burnout should also engage in self-care, using research-based strategies to effectively manage stress (Ansley et al., 2016). Note, we concur with Valerio (2019), that "shouting 'self-care' at people who actually need community care is how we fail people," and we argue systemic improvements to working conditions are needed. Yet SETs cannot wait for systemic solutions for their well-being to be a priority. Ansley et al. (2016) highlighted several evidenced-supported stress-management activities (i.e., exercise, yoga, mindfulness). They recommend SETs use these strategies in the context of a self-directed stress management plan: (a) identify stress-related symptoms (e.g., high blood pressure, dread); (b) select strategies from each of the three stress-management areas (e.g., physical activity; relaxation; health functioning); (c) implement the plan; and (d) assess progress. By using a self-directed stress management plan, SETs can build stress management skills and potentially reduce school-related stress.

Future Research

Research on working conditions is a growing line of inquiry, and much research is needed. Most existing research does not disaggregate results by SET characteristics (e.g., disability served, service delivery model, race/ethnicity, gender; Billingsley et al., 2020), which limits our understanding of how working conditions may differ for different groups of SETs. Research examining differences in SETs' experiences of working conditions is needed.

Further, we recommend scholars measure all salient working conditions and examine relationships among them, as prior research (and COR theory) indicates they interact with one another in complex ways (Cumming et al., 2020). For example, SETs with stronger curricular resources may perceive planning time as more adequate because they have to spend less time finding and creating materials (Bettini, Cumming, et al., 2020). In a systematic review of studies measuring SETs' working conditions, Stark et al. (in review) found few studies measured all working conditions. Because SETs' outcomes result from the balance between their demands and resources to meet demands (Cumming et al., 2020), studies measuring the full range of working conditions are needed to fully understand how working conditions might be improved.

We encourage scholars to investigate how working conditions relate to a broader range of outcomes, including instructional practice, student outcomes, and implementation of interventions (Cumming et al., 2020). For example, scholars could explore how working conditions moderate enactment of practices learned in PD (Billingsley et al., 2020). Further, we encourage scholars to

conduct studies on *how* to effectively change working conditions (Billingsley et al., 2020), as there are currently no working condition interventions for SETs.

Because research is only as strong as the validity of measures used, we urge researchers to develop a comprehensive, valid, and reliable working-conditions measure for SETs. Few extant measures comprehensively evaluate all salient working conditions, and prior validation work is limited (Stark et al., in review). For instance, the Study of Personnel Needs in Special Education (SPeNSE) is among the most comprehensive measures, but it omits most logistical resources (e.g., planning time), and psychometric properties beyond reliability are unexamined (Stark et al., in review). O'Brien et al.'s (2019) measure captures a range of demands and resources and has strong psychometric properties (Bettini, Cumming, et al., 2020), but it evaluates working conditions of SETs with students with EBDs in self-contained settings. A comprehensive measure, validated for all SETs, is needed.

Future working conditions research would also benefit from relying on more consistent theoretical foundations (Stark et al., in review). Prior scholars have used varied theoretical frameworks (e.g., social cognitive theory [Scott, 2012]; COR theory [Bettini, Gilmour, et al., 2020]). Using a shared framework (e.g., Figure 6.1) can support researchers in establishing a shared understanding of SETs' working conditions, as well as identify trends across studies.

Additional Readings and Resources

- IRIS Module: Teacher Retention: Reducing the Attrition of Special Education Teachers: https://iris.peabody.vanderbilt.edu/module/tchr-ret/
- Bettini, E., Cumming, M. M., Brunsting, N., McKenna, J. W., Schneider, C., Muller, B., & Peyton, D. (2020). Administrators' roles: Providing special educators opportunities to learn and enact effective reading practices for students with EBD. *Beyond Behavior*, *29*, 52–61.
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Note

1 Nineteen states currently administer the New Teacher Center's Teaching, Empowering, Leading, and Learning (TELL) survey to all teachers in the state. However, TELL data are aggregated to the school level, and SETs' data cannot be disaggregated. The TELL administration indicates that such efforts are possible; potentially, a SET-specific survey could supplement current data systems.

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