This article presents descriptive, quantitative data from 737 school personnel and parents who support the education of

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those roles, and have their activities be directed and supervised by qualified professionals (Doyle, 2002; French, 2003a; Ger-lach, 2001; Ghere, York-Barr, & Sommerness, 2002; IDEA Partnerships, 2001; Morgan & Ashbaker, 2001; Pickett & Gerlach, 2003; Wallace, Shin, Bartholomay, & Stahl, 2001). However, the limited available research base on paraprofes-sionals in special education suggests that such rudimentary steps to support the work of paraprofessionals have been the exception rather than the norm in American schools (Gian-greco, Edelman, et al., 2001; Jones & Bender, 1993). Paraprofessionals will continue to have valued and impor-tant roles in the provision of special education; we are con-cerned, however, that strengthening paraprofessional supports alone, without simultaneously examining their interactions with general and special education practices, would be akin to treating the symptoms of a problem rather than its causes. In other words, is the field’s increasing and potentially inappro-priate utilization of special education paraprofessionals merely symptomatic of root problems in general and special educa-tion? Will access to the general education curriculum and pursuit of individually determined goals for students with dis-abilities be appropriately supported if we simply strengthen the paraprofessional workforce? We believe these questions war-rant closer scrutiny, particularly given concerns about whether the very model of extensive reliance on paraprofessionals is conceptually sound (Brown et al., 1999; Giangreco & Broer, 2003b; Giangreco, Broer, & Edelman, 1999; Mueller, 2002). The current study explores these concerns by posing five interrelated research questions:

1. What percentage of time do special education paraprofes-sionals spend engaging in each of the following seven task categories: clerical support, supervision of students, per-sonal care, behavior support, implementing instruction planned by professionals, engaging in self-directed activi-ties, and “other”?
2. Does the percentage of time special education paraprofes-sionals spend engaging in task categories vary by type of assignment (i.e., individual vs. group)?
3. What percentage of time do special education teachers spend engaging in the following eight task categories: paperwork, collaboration, behavior support, instruction, planning, working with paraprofessionals, working with families, and “other”?
4. How do special education paraprofessionals rate their own experiences with a series of paraprofessional practices that have been identified in the literature as areas of con-cern (e.g., dependence, planning of instruction)?
5. How do teachers, special educators, administrators, and parents of children with disabilities rate a series of school-wide educational practices associated with appropriate special education in inclusive settings that may contribute to reducing overreliance on and inappropriate utilization of paraprofessionals?

The data collected to explore these questions build on re-cent studies regarding paraprofessionals and fill gaps in the descriptive research on special education service delivery in inclusive schools. First, although several studies have docu-mented the various roles of special education paraprofession-als in inclusive settings (Downing, Ryndak, & Clark, 2000; Giangreco, Broer, & Edelman, 2002; Minondo, Meyer, & Xin, 2001; Riggs & Mueller, 2001), most have not documented the percentage of time that paraprofessionals spend engaging in their various roles. None of the aforementioned studies ex-amined whether the perception of paraprofessional time allot-ments was the same or different among paraprofessionals, special educators, and teachers, or if such time allotments var-ied by paraprofessional assignment. Second, existing studies have not explored how the time breakdowns of paraprofes-sionals compare with those of special educators in the same schools.
Third, although previous qualitative studies have identified
a series of concerns about special education paraprofessional supports (Downing et al., 2000; Giangreco, Broer, & Edel-man, 2001; Giangreco, Edelman, Luiselli, & MacFarland, 1997; Hemmingsson et al., 2003; Marks et al., 1999), those studies did not provide any relative sense of which areas are of most concern to paraprofessionals. Fourth, no existing studies have examined the status of the schoolwide educational practices in-cluded in this study that may contribute to reducing overre-liance on, and inappropriate utilization of, paraprofessionals. Paraprofessional issues do not exist in a vacuum. The data included in this study are important because they allow us to examine educational support issues within a broader context that includes the perspectives of paraprofessionals, along with those of special educators, teachers, administrators, and par-ents of children with disabilities. Because all of the data were collected from these five groups within 12 schools, we were provided with a unique opportunity to understand interrelated practices within schools.
Knowing more about how paraprofessionals and special educators use their time can help us understand existing re-source allocation and assist in making deliberate decisions about which roles are best suited to different personnel. Knowing which paraprofessional practices of concern are most prevalent can assist in developing strategic plans of action. Identifying the perspectives of school personnel and families about gen-eral and special education practices can focus attention on strengthening various aspects of education, such as schoolwide supports, teacher and special educator working conditions, collaboration, resource reallocation, information sharing with families, and peer supports. By exploring the interrelated data sets in this study, we can begin to unravel and better under-stand how the roots of paraprofessional service delivery are in-tertwined with general and special educational practices. As a result, school personnel, families, and policymakers will be bet-ter positioned to make informed decisions about potential changes in policy and practice.

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Method

Settings
This study was conducted in 12 public schools in Vermont: 7 elementary, 3 middle, and 2 central (grades K–12) schools. School populations ranged from 81 to more than 1,100 (M = 452; SD = 295), with an average class size of 19 (SD = 2.57). Seven of the schools were in rural locations, four were in small cities, and one was suburban. The minority student pop-ulation was approximately 5%, and nearly 36% received free or reduced-price lunch.
The schools included an average of 97% of their students with disabilities in age-appropriate general education classes as their primary placement. The mean percentage of students on individualized education programs (IEPs) was 15%; another 4% were on 504 Plans, and 10% of students without disabilities were on educational support team plans for academic support. All 12 schools had volunteered to participate in a grant-supported project to examine their utilization of paraprofes-sionals and explore alternative service delivery options for supporting students with disabilities in general education classes. The total number of paraprofessionals in these schools ranged from a low of 5 to a high of 79.5 Full-Time Equivalents (FTE). On average, 20% of the paraprofessionals were assigned to and funded by general education. The other 80% were assigned to and funded by special education; of those, on average, 50% were individually assigned to work with students one-to-one and 50% were assigned to support small groups of students. These schools employed an average of 1 special education paraprofessional for every 3.7 (SD = 0.8) students who quali-fied for special education services.

Study Participants

Data were collected from a total of 737 individuals. Respon-dents included 367 general education teachers, 153 special education paraprofessionals, 123 parents, 62 special educators, and 32 school administrators. Collectively, these individuals were involved in educating the full range of students with and without disabilities served in their schools. The general edu-cation teachers in this study spanned all grades and subject areas. Approximately 80% were women, and they averaged more than 17 years of experience (SD = 9.8).
Ninety-six percent of the special education paraprofes-sionals were women. They ranged in experience from first year on the job to 30 years of experience (M = 6.4, SD = 6.1). Fifty-two percent of the paraprofessionals had earned some level of college education (i.e., associate’s, bachelor’s, or master’s degree); the remaining 48% were high school graduates. Fifty-four percent of the responding special education paraprofes-sionals (n = 83) were assigned to support individual students, while the remaining 46% (n = 70) supported small groups of students with disabilities. On average, each paraprofessional worked with more than three general education teachers (M =

3.43, SD = 2.03) and more than one special educator (M = 1.43, SD = 2.08).
All the parent respondents, including 108 mothers, 10 fa-thers, and 5 other legal guardians (e.g., grandparents), had a child with a disability who was receiving special education and paraprofessional support. The children of these parents spanned ages and disability categories. The sample included slightly more parents of female students (51%) than males (49%). Ninety-five percent of the special educators in this sample were women (n = 59). Nearly 80% of the special educators functioned as consulting special educators. In this capacity they served a caseload of students across grades and class-rooms. They provided instruction to students with disabilities, collaborated with classroom teachers, supervised paraprofes-sionals, and managed all other aspects of the IEP process. The remaining 20% of special educators served in a variety of ca-pacities, such as resource room teachers or case managers who primarily managed the IEP process but did not provide much instruction to students. Fifty-six percent (n = 18) of the ad-ministrators were general education principals or assistant prin-cipals; the remaining 44% (n = 14) were special education administrators; 56% were women and 44% men.

Design, Procedure, and Data Collection

This study was of a descriptive, quantitative design based on questionnaires completed by the study participants. Data were collected during the 2002–2003 school year. Most of the questionnaires were distributed, completed, and collected at school faculty meetings. Questionnaires for some paraprofes-sionals and other school personnel not in attendance at the fac-ulty meetings were left in their school mailboxes, along with self-addressed, postage-paid return envelopes. Each special ed-ucation teacher was given a set of questionnaire packets to dis-tribute to five parents of students with disabilities who were on their special education caseload and who received parapro-fessional supports. Parent packets included a cover letter; ques-tionnaire; and self-addressed, postage-paid return envelope so that their responses could be returned directly to the re-searcher team.
Different questionnaires were designed for the five differ-ent respondent groups, and each group was asked to provide a small amount of individually relevant demographic data (e.g., role, years of experience, level of education, caseload size and characteristics). Paraprofessionals were asked to indicate the percentage of time they spent in close proximity (within 3 ft.) to their assigned students with disabilities and the per-centages of time they engaged in each of seven task categories: (a) providing clerical support (e.g., photocopying, attendance records); (b) supervising students (e.g., cafeteria, playground, bus duty); (c) assisting with personal care (e.g., bathroom sup-port, dressing); (d) supplying behavior support; (e) imple-menting instruction planned and supervised by a teacher or special educator; (f) engaging in self-directed activities not planned and supervised by a teacher or special educator (e.g.,

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planning lesson or activities, making adaptations or accom-modations); and (g) other. Both teachers and special educa-tors were asked to indicate the percentages of time that the special education paraprofessionals with whom they worked engaged in the same seven task categories. All three groups were instructed to ensure that their categories totaled 100%. Special educators also were asked to indicate the percent-age of time that they were engaged in each of eight task categories: (a) completing special education paperwork (e.g., notices, IEPs, eligibility evaluations, Medicaid); (b) collabo-rating with others (e.g., meetings, consultation with teachers); (c) providing behavior support; (d) engaging in instructional time with students with disabilities; (e) planning activities (e.g., lesson planning, making adaptations or accommoda-tions); (f) working with paraprofessionals (e.g., training, supervising); (g) working with families (e.g., conferencing, phone calls); and (h) other. Special educators were instructed to en-sure that the eight categories totaled 100%.
The remainder of the paraprofessional questionnaire in-cluded 17 statements designed to seek their perspectives on practices that have been identified in the descriptive research literature as areas of concern, though they were presented neu-trally; that is, not identified to respondents as areas of concern. In reference to each statement they were asked to circle one response (strongly disagree, disagree, agree, strongly agree, don’t know) “that most closely reflects your perspective about what DOES happen, rather than what you feel SHOULD happen.” All teachers, special educators, administrators (as the ac-countable professionals), and parents (as consumers) were asked to respond to 20 statements regarding schoolwide edu-cational practices associated with providing special education in inclusive settings (Downing, 2002; McGregor & Vogels-berg, 1998; Villa & Thousand, 2000). These statements were different from those responded to by the paraprofessionals. Paraprofessionals were not asked to respond to these state-ments because they were neither the professionals accountable for these practices nor consumers. It has been posited that the effective implementation of these practices may contribute to reducing overreliance on and inappropriate utilization of para-professionals (Giangreco & Broer, 2003a). Wording of all 20 statements was phrased so that agreement responses would be consistent with positive practice. In reference to each state-ment, respondents were asked to circle one response (strongly disagree, disagree, agree, strongly agree, don’t know) “that most closely reflects your perspective about what DOES happen, rather than what you feel SHOULD happen.”

Data Analysis

Data were analyzed using SAS (SAS Institute, Inc., 1999– 2001). One-way ANOVA and Scheffé post hoc analyses were used to explore differences between respondent groups on continuous variables (e.g., percentage of time on task cate-gories). Intragroup differences between group and individual paraprofessionals were explored using t tests.

Chi-square analyses were used to explore overall differ-ences between respondent groups on categorical variables, fol-lowed by pairwise comparisons between groups. In an effort to identify the most significant differences, the strongly dis-agree and disagree responses were collapsed into a disagree cat-egory, agree and strongly agree responses were collapsed into an agree category, and alpha levels were adjusted to control for experimentwise error. The don’t know responses were excluded from chi-square analyses of the 17 paraprofessional statements because they represented only about 2% of the responses. Con-versely, don’t know responses were included in chi-square anal-yses of the schoolwide practices data because half of those statements had overall don’t know rates exceeding 10%.

Findings

A total of 1,092 questionnaires were distributed, with an over-all response rate of approximately 67% (N = 737). The highest response rates were from special educators (94%), administra-tors (91%), and teachers (87%); these were the groups who at-tended the faculty meetings where the questionnaires were distributed, completed, and collected. Sixty-four percent of the paraprofessionals completed their questionnaires; their at-tendance at faculty meetings varied from school to school. Par-ents had the lowest response rate, 37%; they were not in attendance at faculty meetings. Because it was up to the spe-cial educators to distribute the questionnaires to parents meet-ing established criteria, exactly how many of the 330 parent questionnaires were actually received by the parents is unclear. Therefore, the response rate data for parents presented here are a conservative estimate.

Paraprofessional Use of Time

Table 1 addresses Research Question 1 (What percentage of time do special education paraprofessionals spend engaging in

TABLE 1

Time Use of Special Education Paraprofessionals
Reported by Teachers, Paraprofessionals, and
Special Educators (n = 419)

Time task category M (SD)

% instruction planned by professionals 47.34 (29.09)
% behavior support 19.05 (23.04)
% self-directed 17.29 (21.20)

% supervision of students 6.84 (8.58)
% clerical 4.40 (6.71)

% personal care 3.40 (7.49)
% other 1.26 (7.44)

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the seven task categories?). Table 1 presents data from 68% (n = 419) of respondents from the three groups asked to re-port on the use of time by special education paraprofessionals, including 86% of the paraprofessionals (n = 132), 74% of the special educators (n = 46), and 66% of the teachers (n = 241). Data from other study participants in these three groups were excluded because their percentages did not equal 100% or they did not complete this section on their questionnaire. Written comments indicated that many of the teachers and special educators who did not complete this section of their ques-tionnaire did not feel they knew enough about what the para-professionals were doing to comment with confidence on their use of time; exclusion of paraprofessional data was primarily due to totals’ not adding up to 100%.
As shown in Table 1, special education paraprofessionals reportedly spent an average of 47% of their time providing instruction that was planned by a professional, about 19% providing behavior supports, and over 17% engaged in self-directed activities. Standard deviations in these three cate-gories indicate a wide range of responses. Each of the other four task categories accounted for between 1% and 7% of the paraprofessionals’ time. These data are presented aggregately because the responses across groups (paraprofessionals, special educators, teachers) were very similar. Of the 21 possible pair-wise comparisons of the three respondent groups on the seven time task categories, 20 were not significantly different at p < .01. The mean percentage of time that special education para-professionals engaged in clerical tasks did differ between two of the groups, F (2, 419) = 7.69: Special education parapro-fessionals reported spending about 6% (SD = 8.28) of their time on clerical tasks, whereas teachers reported that parapro-fessionals spent about 3% (SD = 5.66) of their time on clerical tasks. Though a small effect size (0.44) was noted, this minor

percentage difference suggests no practical difference or im-plications.
Table 2 addresses Research Question 2 (Does the percent-age of time special education paraprofessionals spend engag-ing in task categories vary by type of assignment?). As shown in Table 2, an intragroup comparison of responses based on the assignment of special education paraprofessionals as either individual (i.e., assigned to support an individual student with a disability) or group (i.e., assigned to support a small group of students with disabilities) revealed some similarities and a series of modest effect size differences. Fifty-six per-cent (n = 74) of the paraprofessionals who provided usable responses for this analysis of use of time were individual para-proes for this analy data 1C that0 scn 3of students wlowpara-

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abilities). Group paraprofessionals reported spending a greater percentage of their time—nearly 9%—on clerical tasks, com-pared to about 4% for individual paraprofessionals. Arguably, the difference of most practical significance between the re-ported use of time by individual and group paraprofessionals was in reference to instruction: Individual paraprofessionals re-ported spending significantly less time on instruction planned by a professional (37%) than did group paraprofessionals (50%).
Overall, paraprofessionals (n = 140) reported spending ap-proximately 86% (SD = 15.8) of their time in close proximity (within 3 ft.) to their assigned students with disabilities. Though not significantly different, individual paraprofession-als (n = 78) reported spending slightly more time (M = 88%, SD = 12.6) in close proximity to their assigned students than did group paraprofessionals (n = 62, M = 83%, SD = 18.7).

Special Educators’ Use of Time

The special educators in this study reported that their case-loads averaged slightly more than 14 (SD = 5.9) students with disabilities receiving special education, ranging from 6 to 30. Although students with disabilities receiving special education constituted the bulk of their caseload, most of these special ed-ucators were also assigned to support students with disabilities on 504 plans (not eligible to receive special education) and stu-dents without disabilities on educational support team plans. When these three student groups were combined, the average special educator’s caseload was 22 (SD = 7.4), ranging from 7 to 34. Special educators each were responsible for directing the work of an average of more than 4 paraprofessionals (M = 4.21, SD = 2.98)—and in some cases as many as 14.
Table 3 addresses Research Question 3 (What percentage of time do special education teachers spend engaging in the eight task categories?). Table 3 includes data from 85% (n =
54) of the special educators who participated in this study. Nearly all excluded cases were attributed to the sums of spe-cial educators’ time task categories exceeding 100% with writ-ten indications that they spent extensive time on paperwork during nonschool hours. Therefore, the 24% of time reported for the paperwork category is believed to be conservatively low, and percentages in the other categories may be corre-spondingly inflated.
Special educators reported spending more of their time on instruction than any other single time task category—about 34%. The sizeable standard deviation suggests a broad range of responses. In fact, over 72% (n = 39) of the special educa-tors reported spending less than half of their time on instruc-tion; only about 5% (n = 3) reported spending 65% or more of their time on instruction. After instruction and paperwork, the remaining 45% of the special educators’ time was split across the six remaining time task categories, with no one area exceeding 10% of their time.

Paraprofessional Responses Regarding Educational Practices

Table 4 addresses Research Question 4 (How do special edu-cation paraprofessionals rate their own experiences on a series of paraprofessional practices that have been identified in the literature as areas of concern?). Following the first two entries in Table 4, which address paraprofessionals’ levels of concern about proximity and dependence, the remaining 15 items are arranged in descending order; those with agreement/disagreement responses least consistent with positive practice are listed first. An analysis of the paraprofessionals’ responses by service delivery assignment (individual or group) indicated no significant differences on 16 of the 17 items. The lone ex-ception related to whether paraprofessionals, as compared with teachers and special educators, have as much or more frequent communication with parents of students with disabilities, χ2(1, N = 135) = 16.79, p < .01 (item 8). Nearly 38% of individual paraprofessionals indicated that they did have as much or more communication with parents, compared to about 9% of group paraprofessionals.
Less than 15% of the responding paraprofessionals indi-cated that they were concerned that their close proximity might be unnecessary or interfere with teacher and peer inter-actions (item 1), though nearly 37% were concerned that the students with disabilities they worked with were unnecessarily dependent on paraprofessionals (item 7). These somewhat dis-parate responses are interesting in light of the fact that para-professionals reported spending an average of nearly 86% of their time in close proximity to their assigned students with disabilities and other findings presented in Table 4. For exam-ple, over 46% of the paraprofessionals reported that some of their students with disabilities communicated, via their lan-guage or behavior, that they found paraprofessional supports unwanted (item 13). Nearly 46% of the paraprofessionals in-dicated that students with disabilities thought of them as among their primary “friends” at school, rather than their

TABLE 3
Self-Reported Time Use of Special Educators (n = 54)

Time task category M (SD)

% instruction of students 34.16 (19.26)
% paperwork 24.27 (13.43)
% collaboration 10.22 (5.37)
% planning 7.90 (4.11)
% behavior support 7.81 (7.62)
% working with paraprofessionals 7.05 (4.96)
% working with families 6.07 (4.09)
% other 0.66 (2.92)

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TABLE 4
Paraprofessionals’ Agreement and Disagreement
Disagree orAgree or
strongly disagreestrongly agree

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classmates (item 12), and more than 36% reported that stu-dents with disabilities spent more than half of their social time at school (e.g., lunch, playground, free-time) with paraprofes-sionals (item 11).
The data suggest that a substantial percentage of parapro-fessionals perceive that they function in somewhat separate, primary, instructional roles that often supercede those of the certified professional educators. Nearly 36% of the paraprofes-sionals reported that they and the students with disabilities they supported were separate, placed at the side or back of the classroom, from the activities of the class (item 2). Nearly 40% reported providing most of the instruction to students with disabilities, rather than the majority being provided by teach-ers and special educators (item 4). Over 53% of paraprofes-sionals indicated that at progress-reporting time, teachers and special educators relied on them to provide information because they knew more about the students’ current performance lev-els than the professionals did (item 17). Most notably, nearly 70% of the paraprofessionals reported that they functioned with a high level of autonomy, by making curricular, instruc-tional, and activity-participation decisions without always hav-ing professional oversight (items 6 and 10). Though the remaining seven items on Table 4 depict agreement responses about what actually happens in these schools that reflects higher levels of congruence with positive practices, ranging

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Significant intergroup differences were identified on six other statements where the pattern of agreement remained the same (i.e., all groups reported higher levels of agreement than disagreement), with F values ranging from 24.30 to 60.78. Whereas 97% of the administrators agreed that parents and students with disabilities participated as team members in de-veloping and implementing the IEP, 12% fewer teachers (85%) agreed (item 18). Ninety-two percent of teachers agreed that students with disabilities were physically situated within the classroom to facilitate their participation with classmates and instruction by the teacher; 13% fewer parents (79%) agreed (item 4). Whereas 92% of special educators agreed that they had the knowledge and skills to successfully differentiate in-struction for mixed-ability groups that included students with
and without disabilities, 23% fewer teachers (69%) and 20%
fewer administrators (72%) agreed (item 11). Sixty-seven per-
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seven percent of administrators and 62% of parents agreed that teachers had working conditions that facilitated including and instructing students with a full range of disabilities in their classrooms (item 8). Opposite responses to the same statement were reported by teachers and special educators, who reported 38% and 43% levels of agreement, respectively. Last, in refer-ence to whether families were well informed about how the school defined appropriate and potentially inappropriate roles of paraprofessionals (item 15), teachers and parents reported higher levels of agreement—33% and 46%, respectively—than disagreement. Conversely, administrators and special educa-tors reported lower levels of agreement—19% and 34%, re-spectively—than disagreement. In reference to items 15 and 16, all groups’ agreement levels were below 50%, due in part to the high percentage of don’t know responses.

Discussion

This study’s findings clearly highlight a series of issues and practices of interest to school personnel and parents that have an impact on the education of students with disabilities in gen-eral education classrooms. Demographic data and time use of paraprofessionals and special educators reveal questionable, if not surprising, patterns. These data indicate that, on average, special educators spend a significantly smaller percentage of their time on instruction than do the special education para-professionals they supervise. That finding, combined with the fact there were more than 4 times as many special education paraprofessionals as special education teachers in the schools in this study, reveals that many students with disabilities are getting a substantial amount of their instruction from para-professionals.
It is interesting that the fact that individual paraprofes-sionals spend less time providing instruction than do group paraprofessionals is potentially the most counterintuitive find-ing regarding use of time in this study. Presumably, individual paraprofessionals are assigned to provide intensive, one-to-one instructional support for students with more severe disabilities. Yet, the data indicate that not only do individual paraprofes-sionals spend less time instructing students with disabilities but they also spend nearly a quarter of their time self-directed. This raises concerns about whether students who are assigned in-dividual paraprofessional support are getting competent in-struction, and enough of it. This should not be surprising considering that, on average, each special education parapro-fessional might expect to receive less than 2% of a special ed-ucator’s time in training, supervision, or other professional direction. This 2% figure is based on the demographic data in-dicating that each special educator oversees about four para-professionals and reports spending only about 7% of his or her time working with paraprofessionals (e.g., training, super-vising).
Is special education service delivery that relies extensively on paraprofessionals to support the education of students with disabilities in general education classes what the education

community wants to perpetuate and extend? There are com-peting perspectives in the literature on this issue. Some authors have suggested that extensive utilization of paraprofessionals is desirable and requires a shift in the roles of certified educators to those of “delegator, planner, director, monitor, coach, and program manager” (French, 1999, p. 70). In this manager-style model, paraprofessionals teach more and are supported to become increasingly skilled in instruction, while special ed-ucators teach less and become increasingly skilled in manage-
ment.

Conversely, others have argued that the specialized curric-ular and instructional needs of students with disabilities who are placed in general education classrooms, especially those with more severe disabilities, require ongoing access to the most highly skilled, creative, and competent professionals (Brown et al., 1999). In this same vein, Giangreco (2003) has ques-tioned whether extensive reliance on paraprofessionals to ed-ucate students with disabilities is nothing short of a double standard that simply would not be considered acceptable if it were applied to students without disabilities. This perspective has taken on added meaning given the recent national em-phasis in the No Child Left Behind Act of 2001 on ensuring that public school students have access to “highly qualified teachers.”
This study’s data on special educator caseload size/configuration, paperwork burden, and relatively small per-centage of time spent in instruction are consistent with the findings of the Bright Futures report (Kozleski, Mainzer, & Deshler, 2000), which highlighted these factors as some of the key reasons special educators identify for leaving the field. Like other teachers, special educators want to spend their time working with students rather than pushing paper or directing other adults.
We need to consider whether personnel’s use of time matches their skills and training. For example, special educa-tors in the study conservatively reported spending about 51⁄2 times more time on paperwork than special education para-professionals spent on clerical tasks. Granted, some of those paperwork tasks do require professional skills (e.g., writing IEPs), but not all do. Does it make sense that special educa-tors would be asked to support a larger caseload of students (22), all with some sort of special need, than general educa-tion teachers in these same schools, who have an average class size of 19? Keep in mind that in addition to having more stu-dents with varying disability characteristics, the work of these special educators typically was spread across multiple teachers, paraprofessionals, and grade levels.
It is particularly noteworthy that several responses of ad-ministrators were the opposite of other groups’, especially teachers. Any time the people responsible for allocating re-sources and the people delivering the services differ as sub-stantially as documented in the present findings, it is cause for further exploration and communication. This raises vital issues around developing shared frameworks, expectations, and ra-tionales for the allocation of training and personnel resources.

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that they and the students with disabilities they supported were separated from the activities of the classroom and were physi-cally located at the back or side of the classroom (see Table 4, item 2). Yet, 92% of the classroom teachers agreed that stu-dents with disabilities are physically situated in the classroom to facilitate their participation in instruction and with class-mates (see Table 5, item 4). Resolution of such discrepancies may lie in communication among the differing groups in an effort to better understand each other’s perspectives and in di-rect observational time studies with agreed-upon operational definitions.
Some of the study’s findings are encouraging. For exam-ple, over 94% of the participants agreed that students with dis-abilities are educated in the schools they would attend if not disabled (see Table 5, item 1). In considering the more en-couraging findings in Tables 4 and 5, the reader is asked to consider this question: How high or low does the percentage need to be before an item is of concern? For example, it is en-couraging that over 78% of paraprofessionals reported that they had been provided with explicit information about the IEP goals for the students with disabilities and were clear about which parts of the general education curriculum these students were expected learn (see Table 4, item 3). But is it acceptable that over 22% of the paraprofessionals reported that they had not been provided with this information? It is en-couraging that over 83% of paraprofessionals reported that the academic support they were asked to provide was within their scope of skill and comfort (see Table 4, item 14). But is it ac-ceptable that nearly 17% reported that they were asked to pro-vide academic support in subjects where they felt underskilled, unskilled, or uncomfortable? Would this percentage be differ-ent if the data included more respondents from high schools? What if a student whose education you cared about was expe-riencing services on the wrong side of these equations? These data also raise continuing questions about the ap-propriate roles of special education paraprofessionals. For ex-ample, 24% of the paraprofessionals, and approximately 38% of individual

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• In an effort to tailor potential actions to individual situa-
tions, administrators are encouraged to collect the kinds of data included in this study within their own schools to develop a shared understanding within the school com-munity by building a baseline profile of their personnel-related demographics, patterns of usage of time, and constituent perspectives on the paraprofessional and schoolwide practices effecting students with disabilities. Generic versions of the questionnaires used in this study are available for this purpose online (http://www.uvm. edu/~cdci/evolve/surveys.html).
• As a field and within school systems, we need to continue
a cross-constituent dialogue about which emerging mod-els of special education service delivery will meet the needs of students with disabilities within general educa-tion settings. Current models based on extensive reliance on paraprofessionals, though in widespread use, lack an educationally defensible foundation from a conceptual, theoretical, or data-based perspective.
• The study’s data suggest that special educator working
conditions (e.g., caseloads, paperwork, other use of time) require close scrutiny to ensure that we can attract and retain excellent special educators to work in our public schools. In part this means eliminating tasks from their jobs that do not require special educator skill (e.g., cleri-cal, administrative); reducing the scope of their responsi-bilities (e.g., more tightly clustered grade levels/curricula to support, fewer paraprofessionals to direct); and ensur-ing that they have reasonable caseloads of students to sup-port, in terms of both numbers and configuration.
• The study’s data suggest that schools should deliberately
match assignments to personnel’s respective skills, train-ing, certification, and student needs. Do we really want a model that may be inadvertently perpetuating low expec-tations and double standards? Do we really want a model where if you are not disabled, you receive your instruction from a highly qualified teacher, and if you have a disabil-ity, especially if it is considered severe, you receive the bulk of your instruction from paraprofessionals, with no guarantee of their qualifications?
• The study’s data suggest that schools need to consider
alternatives to extensive reliance on paraprofessionals,
such as implementing co-teaching models, reallocating resources to pursue cost-neutral exchange of paraprofes-sional positions for special educator positions, strengthen-ing schoolwide supports, building the capacity of teachers and special educators to teach mixed-ability groups, and offering peer support strategies, among others (Gian-greco, Halvorsen, Doyle, & Broer, 2004).
• The don’t know data from this study suggest that we need
better collaboration and information sharing, especially between general education teachers and parents. The data suggest that schools could benefit from information shar-ing about the pros and cons of paraprofessional support, as well as explicit guidelines that detail the processes schools use for making decisions about how and under

what circumstances paraprofessional supports, especially individual supports, are necessary.
• The data also suggest that the role of general education teachers with regard to students with disabilities continues to require clarification, and that teachers and special edu-cators could benefit from increased knowledge and skills about how to differentiate instruction for mixed-ability groups within the general education context.

As a field, we have yet to fully and equitably deliver the promises of the IDEA to all students with disabilities. Across the country, schools committed to the least restrictive envi-ronment provisions of the IDEA often have built their pursuit of quality inclusive education for students with disabilities on models that rely extensively on paraprofessionals. Such mod-els have allowed schools to include increasing numbers of students with more severe disabilities without having to sub-stantially address or change how the discrete special and gen-eral education systems collaborate and function. The result has been that paraprofessionals have served as an analgesic for the perceived pressures of including more diverse populations of students with disabilities. Unfortunately, to date we have no compelling evidence that this model is an effective educational support for students with disabilities.
We are concerned that the longer the pressures of inclu-sion continue to be shifted onto the backs of paraprofession-als, the more this delays attention to the root problems in general and special education that were highlighted in this study (e.g., caseload size, working conditions of teachers and special educators, professional ability to differentiate instruc-tion for mixed-ability groups). We are concerned about efforts to extend the roles of special education paraprofessionals to include roles typically reserved for professionals (e.g., assess-ment, making curricular adaptations, instruction, communi-cating with families). Rather than shifting these responsibilities to paraprofessionals, we need to address the roles and work-ing conditions of teachers and special educators and their ef-fective utilization within inclusive classrooms serving students with and without disabilities.
Future research is needed to determine how decisions are made about the need for paraprofessional supports, which fac-tors have perpetuated the proliferation of paraprofessional models that are without conceptual or data-based support, and what impact alternative service delivery models have on stu-dent outcomes. We hope the data from this study contribute to the national discussion about inclusive educational service delivery for students with disabilities and that they will chal-lenge the field to shift from treating symptoms by utilizing more paraprofessionals in increasingly instructional ways and to focus more deliberately on the roots, namely, special and general education practices.

ABOUT THE AUTHORS

Michael F. Giangreco, PhD, is a research professor at the Center on Dis-ability and Community Inclusion, University of Vermont. His current

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work focuses on practices that facilitate the successful inclusion of stu-dents with disabilities in general eduation classes. Stephen M. Broer, PsyD, is the director of behavioral health services for Northwestern Coun-seling and Support Services in St. Albans, Vermont. His current work focuses on community mental health services. Address: Michael F. Gian-greco, University of Vermont, Center on Disability and Community Inclusion, 208 Colchester Ave., Mann Hall 301A, Burlington, VT 05405-1757; e-mail: Michael.Giangreco@uvm.edu

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