SCHOOL PSYCHOLOGY CROSSROADS IN AMERICA:
DISCREPANCIES BETWEEN ACTUAL AND PREFERRED DISCRETE PRACTICES
AND BARRIERS TO PREFERRED PRACTICE

Kevin J. Filter
Sara Ebsen
Minnesota State University

Rebecca Dibos

A nationally representative sample of American school psychology practitioners were surveyed to analyze discrepancies that they experience between their actual discrete practices and their preferred discrete practices relative to several domains of practice including assessment, intervention, meetings, and continuing education. Discrepancies were also analyzed relative to service delivery in three levels of prevention (primary, secondary, and tertiary). Results indicate that practicing school psychologists experience significant discrepancies between actual and preferred practices in all discrete practices, with the largest discrepancies by hours noted in the discrete practices of report writing, prevention screening, CBA/CBM administration, IQ testing, and conducting research. Respondents also indicated a clear preference for participating in significantly more primary-level and secondary-level prevention efforts. Barriers to preferred practices were analyzed with the most commonly reported barriers being time and administrative expectations. Findings are discussed in terms of emerging models of school psychology, including problem-solving and response-to-intervention, and implications for the international practice of school psychology.

School psychology is a profession historically defined by assessment activities with a particular focus on intelligence testing and informing special education eligibility decisions. However, recent trends in the field in the United States are moving away from some of these traditional roles toward focusing on systems-level efforts and assessment activities that inform intervention. While many American school psychologists have been trained in practices consistent with the recent trends in the field, such as consultation, assessment, intervention, research and program evaluation, preliminary research suggests that many are experiencing a discrepancy between what they are expected to do professionally and what they would prefer to do (Hosp & Reschly, 2002; Merrell, Ervin, & Gimpel, 2006). Given that job satisfaction among school psychologists has generally been high (Anderson, Hohenshil, & Brown, 1984; Levinson, 1989; VanVoohris & Levinson, 2006), limited attention has been devoted to issues of professional dissatisfaction, such as the discrepancy between actual and preferred practices. It is likely, though, that these discrepancies could become increasingly important to the field if left unattended. The purpose of the present study was to investigate the magnitude of this discrepancy and explore perceived barriers to preferred practices.

School Psychology as an International Discipline
School psychology is a discipline with varying identities and degrees of professional development around the world (Jimerson, Oakland, & Farrell, 2007). It emerged as a distinct discipline in the United States slowly over several decades in the 20th Century. The first training program in school psychology was established at New York University in 1928, the first organizations of school psychologists were formed at the state and national level in the 1940s, and the first national conference devoted to school psychology, The Thayer Conference, was held in 1954. Finally, in 1969 the National Association of School Psychologists (NASP) was founded (Merrell et al., 2006). The field has been changing significantly over the past century as has the definition of school psychology. On its website, NASP describes school psychologists as the following, *School psychologists help children and youth succeed*

academically, socially, behaviorally, and emotionally. They collaborate with educators, parents, and other professionals to create safe, healthy, and supportive learning environments that strengthen connections between home, school, and the community for all students. (http://www.nasponline.org/about_sp/whatis.aspx; retrieved August 9, 2012). Most definitions of school psychology generally include an emphasis on applying principles of psychology to issues in education (Merrell et al., 2006). It is also important to understand that school psychologists are generally tied very closely to special education and mandates requiring comprehensive evaluation of students in special education.

Around the world, school psychology has varying degrees of professionalization. Some countries, such as Canada (Saklofske, Schwean, Harrison, & Mureika, 2007), South Africa (Daniels, Collair, Moolla, & Lazarus, 2007), Norway (Anthun & Manger, 2007), and Brazil (Guzzo, Martinez, & Campos, 2007) use the term school psychologist. In many other countries, however, the roles of school psychologists are performed by people with the titles of counselor, psychologist, educational psychologist, or guidance counselor (Jimerson et al., 2007).

The current study should be of interest to an international audience because the role of school psychologist exists in some capacity all around the world and the changes that have been happening in the discipline within the United States may have implications for special education and school psychology internationally. This is particularly true to the extent that changes in the educational system seen in the United States (e.g., focus on accountability, evidence-based practice, and prevention) are also occurring in other places around the globe. As educational systems have changed in the United States, so has the discipline of school psychology.

Early Development of School Psychology and the Assessment Role
A review of the historical development of school psychology as a profession in the United States is important in understanding the current trends and changes in the discipline that may be leading to a discrepancy between actual and preferred practices. The development of intelligence tests is generally considered to be a major milestone in school psychology (Merrell et al., 2006). The first modern intelligence test developed by Binet and Simon at the turn of the 20th Century in France was designed to differentiate children based on their ability to be successful in the general education setting. Intelligence testing soon became a means of educational programming, used to identify an individual's opportunities and future (Merrell et al., 2006; Fagan & Wise, 2007). Hence, psychologists first became relevant in schools because of their unique ability to administer and interpret intelligence tests.

Since the 1970's school psychology is a field in the United States that has been largely defined by special education laws and federal funding (Nastasi, 2000). With the passage of PL 94-142 in 1975, later renamed the Individuals with Disabilities Education Act (IDEA), a free and appropriate education was mandated for students aged three to 21 with disabilities and required assessment for placement into special education classrooms (Prasse, 2008). Students can now qualify as having a disability under 14 categories and school psychologists are mandated to be directly involved with the assessment process for many of these disability evaluations. No Child Left Behind also impacted the role of school psychologists, as it called for all students to be proficient in basic academic skills by the years 2013-2014, thereby increasing the value of quality services based on comprehensive individual evaluations (Merrelll, et al., 2006; Tilly, 2008).

Recent Trends
Many professionals in the field of school psychology are pushing to replace the traditional gate-keeper orientation of school psychology with a preventative problem-solving orientation. Perhaps the most fundamental shift between these orientations is that assessment be directly linked to intervention rather than used as a tool for sorting students into service categories. The problem solving orientation is an avenue that links assessment to intervention and is predicated on early intervention, monitoring of outcomes through continuous data collection, and a focus on the function of behavior (Reschly, Tilly, & Grimes, 1999; Tilly, 2008). Problem solving occurs in four stages: (a) identifying a problem, (b) determining the cause of the problem, (c) developing and implementing interventions, and (d) determining if interventions were effective. Therefore, a problem-solving orientation necessitates the use of assessments that inform interventions and increased involvement on the part of the school psychologist throughout all stages of the problem solving model, particularly consultation and intervention related activities.

A recently emerged model of service that supports a shift toward problem solving is response-to-intervention (RtI; Tilly, 2008). RtI is a robust model that can be applied to the provision of academic, behavior, and mental health services in schools (Daly, Martens, Barnett, Witt, & Olson, 2007; Fairbanks, Sugai, Gaurdino, & Latrhop, 2007; Merrell, et al., 2006; Sugai & Horner, 2006). In an RtI model, formative data are continuously gathered for decision making across all levels of prevention (primary, secondary, and tertiary). For example, an RtI model for academic achievement involves screening all students in a school using brief, psychometrically sound probes of basic skills and then determining which students are in need of more intense services based on a discrepancy from the norms and existing data regarding appropriate learning trajectories. As a student moves up the three-tiered levels of service delivery, she or he receives more intense assessments and services. In an RtI model, therefore, the role of the school psychologist shifts from gate-keeper to a focus on connecting assessment information to interventions.

With RtI and problem solving emphasizing intervention-focused assessment over eligibility-focused assessment, curriculum based measurement (CBM) has emerged as an alternative to the school psychologists' traditional focus on intelligence tests (Deno, 1989; Gresham & Witt, 1997; Shinn, 2008). CBM is a set of standardized, validated, brief fluency measures of basic academic skills in the areas of reading fluency, spelling, writing, math, and early literacy (Deno, 1985; Kaminski, Cummings, Powell, Smith, & Good, 2008; Shinn, 1989). A major advantage of using CBM probes is that they are directly related to the curriculum, are sensitive to changes in performance, and can be used as to monitor and identify students at risk for failure. These measures offer information that is useful in developing, implementing and monitoring interventions.

The movement away from a gate-keeping orientation toward a problem-solving orientation in school psychology is clearly supported in the *Blueprint* for the training and practice of school psychology that is published by the National Association of School Psychologists (NASP; Ysseldyke et al., 2006). The *Blueprint* specifies that school psychologists achieve the desired outcomes of improved competencies for all students and build the capacity of systems through a three-tiered preventative delivery system using foundational competencies that include, among others, data-based decision-making and accountability. It further specifies that *school psychologists must also possess a set of skills, including the ability to use problem-solving and scientific methods…* (p. 14) as well as *be instructional consultants who can assist parents and teachers…* (p.13). With the guidance and support of NASP (e.g., *Blueprint*, *Best Practices V*), federal legislation (*IDEA 2004*), and numerous researchers in the field, it seems likely that a problem-solving orientation will continue to grow in school psychology.

Role Conflict and Barriers to Preferred Practice
Although historical factors led to a strong assessment-orientation and special education gate-keeper role for school psychologists, recent data indicate more diverse practices among school psychologists than previously found. Bramlett, Murphy, Johnson, Wallingsford, and Hall (2002) surveyed three-hundred members of the NASP and found that, although assessment was the most common activity among respondents (46% of their time), they also spent 29% of their time in consultation (16%) and intervention (13%), and the remainder of their time in counseling (8%), conferencing (7%), supervision (3%), continuing education (2%), research (1%), parent training (1%), and other (3%). As Bramlett and colleagues found, assessment consumes a considerable percentage of school psychologist's time. The researchers projected that both school psychologists amount of engagement in assessment activities and the nature of those assessments activities may change in the years to follow (Bramlett et al., 2002). Due to factors previously discussed, such as Amendments to IDEA, school psychologists were predicted to engage in more intervention-based assessment which would entail gathering data more frequently in order to make decisions. This trend has yet to be documented. Bramlett and colleagues also found a slight decrease in the time allocated to consultation compared to previous studies, even though it is prominent among the school psychology literature. Consistent with consultation, increased intervention services are frequently suggested in the literature but continue to make up a small percentage of a school psychologists time.

Hosp and Reschly (2002) looked at the amount of time school psychologists spent in various professional activities and reported that respondents to their survey of 1,423 NASP members spent one half or more of their time per week in assessment activities (22.2 hours), 7.6 hours per week in intervention activities, 9.2 hours per week in consultation activities, and one hour per week engaged in research activities. While these findings included significant regional differences in the relative amount of time spent in each of these activities, they were highly similar to previous research in the area. In a national survey done by

Bramlett and colleagues (2002), respondents indicated spending 46% of their time on assessments and assessment-related activities. Other roles included consultation (16%), providing direct interventions (13%), and counseling (8%). Respondents only indicated spending 1% of their time on research and research evaluation.

Similarly, Reschly and Wilson (1995) found that school psychologists were spending over half of their time involved in psychometric assessments, 20% of their time was devoted to providing direct interventions to students, and less than 5% devoted to evaluating research and consulting at the organizational level. Reschly and Wilson also examine the preferred roles of the school psychologists. Desired time allocations included assessments (32%), providing direct interventions (28%), Problem-solving Consultation (23%), organizational consultation (10%) and research evaluation (7%). Findings by Reschly and Wilson (1995) are consistent with recent literature. While school psychologists recognize the necessity of assessment practices, the majority desire a more diverse role that includes a shift in assessment practices toward those that inform interventions and increased time devoted to intervention, consultation and research (Worrell, Skaggs, & Brown, 2006). In an investigation examining the role preferences of school psychologists, Worrell and colleagues found that desired roles had changed very little over the course of 22 years. Additionally, as alluded to earlier, with recent changes towards the implementation of RtI and problem solving models, school psychologists would prefer roles more focused on larger systematic issues (Merrell et al., 2006; Shapiro, 2000).

Due to the conflict between actual and preferred practices, most school psychologists are advocating for role expansion (Merrell, et al., 2006). In order to impact school psychologist role reform toward more preferred practices, it is first vital to identify the barriers that are creating resistance. Curtis, Grier and Hunley (2004) suggest that the shortage of school psychologists and increased school psychologist-to-student ratios act as barriers and result in less opportunity for school psychologists to engage in activities outside of those dictated by state legislative and district mandates. Recent findings also indicate that limited teacher perceptions of the breadth of services school psychologists provide may present a barrier to preferred practices (Gilman & Medway, 2007). When compared to special education teachers, general education teachers reported less knowledge on the roles and services provided by school psychologists, rated school psychologists as being less helpful to students, and gave lower ratings of overall satisfaction with the services provided by school psychologists.

Present Study
Through an understanding of the discrepancies between actual and preferred practices and the barriers that perpetuate the discrepancies, steps can be taken toward reducing the discrepancies and implementing practices that improve outcomes for a wide range of students. Although preliminary research has indicated that discrepancies between actual and preferred practices are common, all studies to date have focused on broad categories of practice rather than discrete practices (i.e., assessment rather than IQ testing and CBM administration). Further, no studies have addressed discrepancies in terms of various levels of prevention (e.g., primary, secondary, and tertiary) or the variables that predict discrepancies. The present study, therefore, adds to the literature by measuring the extent and significance of current discrepancies between actual and preferred practices in terms of discrete practices and levels of prevention, analyzes demographic factors that predict major discrepancies, and identifies potentially malleable barriers to preferred practices using a nationally representative sample of school psychologists.

Method
Participants and Procedures
Respondents for this survey were practicing school psychologists in the United States were selected from a random sample of 1,000 members of the NASP based on 2008-2009 membership. In order to select only school psychologists who were practicing in the field, the sample used excluded those working at colleges/universities and retired and student members. Completed surveys were returned by 216 respondents for an overall response rate of 21.6%. A demographic description of respondents as compared to the membership of the NASP is provided in Table 1. Completed surveys were received from 41 states and one came from Spain. States from which at least 10 surveys were received include CA, FL, MA, NY, OH, and PA.

Table 1. Demographic Characteristics of Respondents as Compared to the Membership of NASP

Demographic Variable	Respondents	NASP Membership (2008-2009)
Gender		
Female	82.4%	76.8%
Male	17.6%	23.2%
Ethnicity		
Black/African American	1.9%	3.3%
White/Caucasian	93.1%	87.0%
Asian American	0.5%	1.9%
Hispanic or Latino	0.5%	7.1%
American Indian	0.0%	0.6%
Two or More Races	4.2%	Not available
Degree		
Bachelors	Not available	5.3%
Masters	6.0%	12.1%
Masters + 30	26.9%	33.1%
Specialists	41.2%	21.9%
Doctorate	25.9%	27.6%

Survey packets were mailed to the sample of 1,000 practicing school psychologists in March, 2008. Included in the packets were the questionnaires, a postage-paid return envelope, and a slip of paper on which respondents could write their name and address in order to be entered into a drawing for a $10 Target gift card. Reminder post cards were mailed out in April and gift cards were mailed out in June after all surveys had been received.

Materials
The survey was 10 pages long and took approximately 45 minutes to complete.
The survey included five distinct sections: (a) demographics, (b) multicultural experiences, (c) professional practices, (d) job satisfaction and organizational commitment, and (e) multicultural competence. The present study focuses only on the professional practices and demographics sections of the survey.

The professional practices section of the survey required respondents to indicate the number of hours they actually spend and would prefer to spend in various professional activities. The range of professional activities included assessments, interventions, meetings, trainings, and other (including report writing and research), each of which included multiple discrete practices (e.g., IQ testing, behavior rating scales, and achievement testing under assessment). In total, respondents reported on 23 discrete practices. Definitions of each discrete practice are included in the Appendix. Also included in the professional practices section of the survey were items for which respondents indicated percentage of time actually and preferably spent in general education and the three levels of prevention: primary, secondary, and tertiary. A description of each level of prevention was included in the survey because pilot research had indicated that respondents often misunderstood how these levels of prevention related to their practice (see Appendix for definitions). Finally, a sub-section on barriers to preferred practice was included wherein respondents endorsed checklist items that they perceived to be barriers to preferred practice followed by an open-ended narrative statement wherein respondents described perceived barriers to preferred practice. The list of items on the barriers checklist was derived from the findings of a piloting of a similar survey using open-ended questions.

Data Analysis
Current practices of school psychologists and perceived barriers were summarized using descriptive statistics (e.g., means and standard deviations). Discrepancies between actual and preferred practices were analyzed using paired-samples *t*-tests. Multiple regression analyses were conducted to determine the predictors of major discrepancies (IQ testing, CBA/CBM, staff consultation, research, report writing, general education, and the three levels of prevention). For these analyses, the discrepancies were the criterion and demographic variables (years in practice, years until retirement, highest degree earned, and psychologist-to-student ratio) were the predictors. Separate regression analyses were run for each discrepancy.

Results

Actual Practices

The actual practices reported by practicing school psychologists were reported as hours per week for discrete professional activities and as a percent of total hours for levels of service. Discrete professional activities and levels of prevention are reported separately because different metrics were used for each (hours per week and percent of time, respectively).
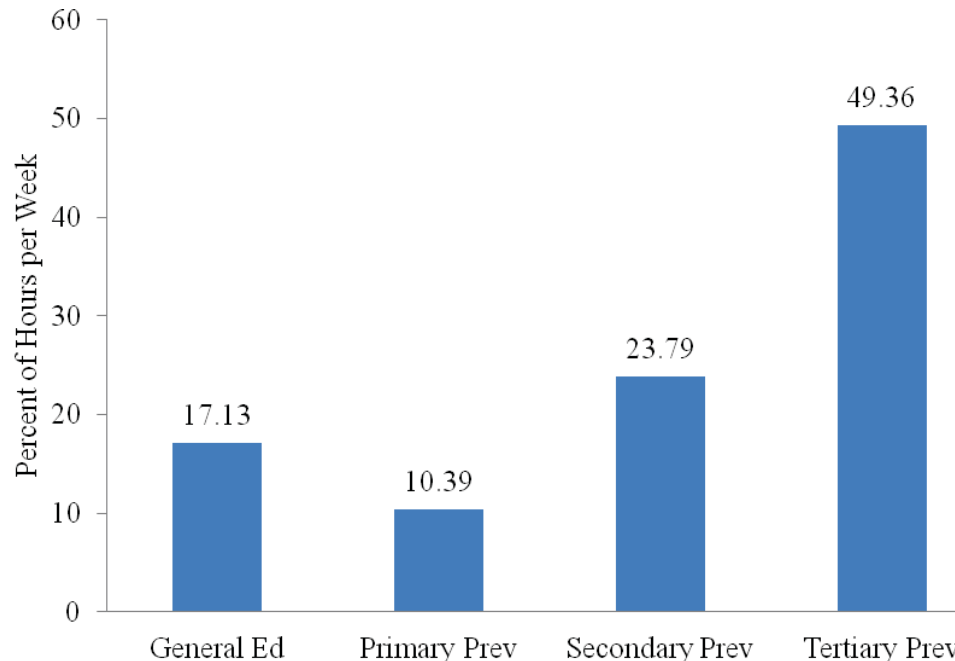
Discrete Professional Activities. The mean hours per week actually spent in various discrete professional practices is presented in Figure 1. The three most common activities reported were report writing (M = 7.46; SD = 5.42), IQ testing (M = 5.69; SD = 4.99), and staff consultation (M = 5.47; SD = 5.94). The three least common activities reported were academic instruction (M = 0.32; SD = 1.28), research (M = 0.46; SD = 1.19), and program evaluation (M = 0.51; SD = 1.70).
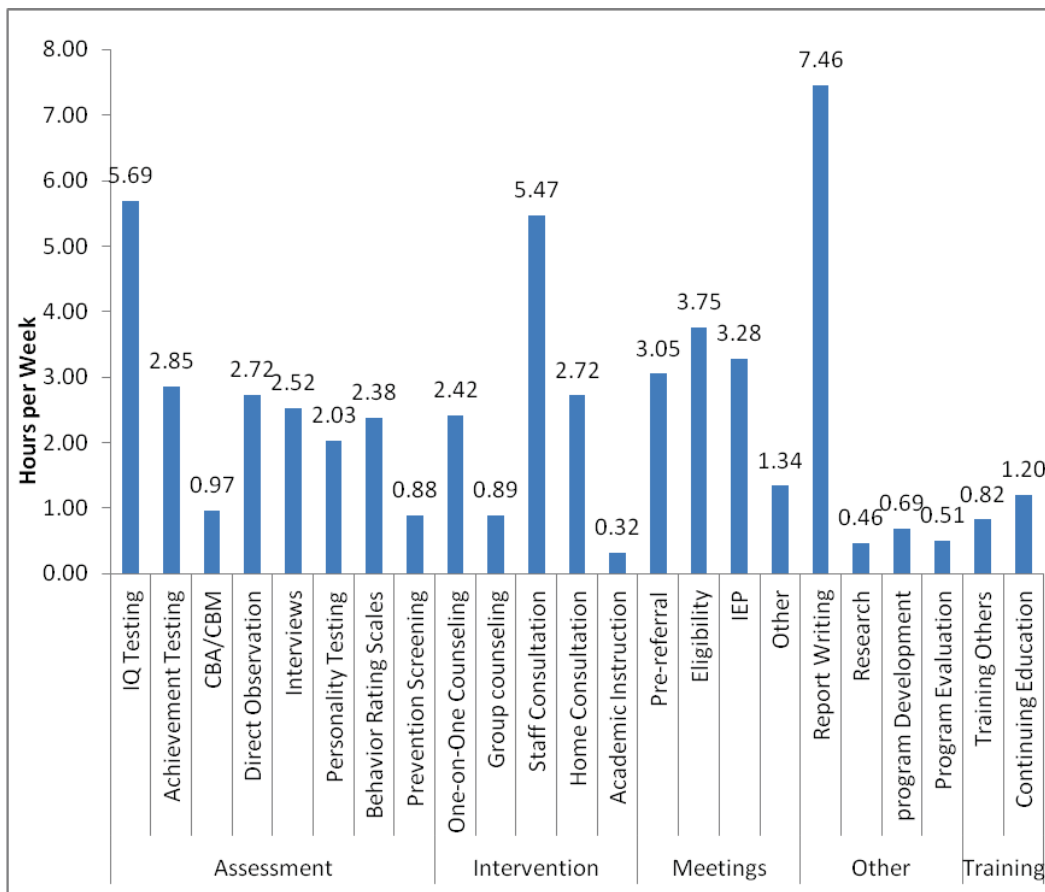
Figure 1. Number of hours per week school psychologists reported actually spending in discrete professional activities.

Levels of Service. The percent of hours actually spent in each of the three levels of prevention and in general education is reported in Figure 2. Respondents reported spending the largest percent of their time in tertiary prevention (M = 49.36; SD = 30.44) and the percent of their time in primary prevention (M = 10.39; SD = 13.34). Respondents also reported spending a mean of 17.13 percent of their time working with general education issues (SD = 23.52) which suggests that a majority of the time of the practicing school psychologist is spent dealing with special education issues.

Figure 2. Percent of hours per week that school psychologists reported spending working in various levels of service delivery.

Discrepancies between Actual and Preferred Practices
Discrete Professional Activities. Discrepancies between the mean hours per week that practicing school psychologists actually spend per week and prefer to spend per week in various discrete professional activities is presented in Figure 3. There were several activities that respondents generally preferred to do less than they actually do, such as report writing, IQ testing, and special education eligibility meetings, with mean discrepancies of -3.34 (SD = 4.10), -1.83 (SD = 3.76), and -1.21 (SD = 3.07), respectively. There were also several activities that respondents generally preferred to do more than they actually do, such as prevention screening, curriculum-based assessment/curriculum-based measurement, and research, with mean discrepancies of 2.31 (SD = 4.10), 2.05 (SD = 3.62), and 1.74 (SD = 3.87), respectively. Statistically significant discrepancies ($p < .02$) were found for each discrete practice based on paired-samples *t*-tests.

Levels of Service. Figure 4 depicts the discrepancies between the percent of hours per week that practicing school psychologists actually spend and prefer to spend in the three levels of prevention and in general education. Results indicate that respondents would prefer to spend less time in tertiary prevention with a mean discrepancy of -18.13 (SD = 26.35) and more time in general education, primary prevention, and secondary prevention with mean discrepancies of 13.12 (SD = 16.60), 18.78 (SD = 19.26), and 4.75 (SD = 20.42), respectively. Paired samples *t*-tests indicate significant discrepancies ($p < .001$) for each level of service.

Predictors of Major Discrepancies between Actual and Preferred Practices
A multiple regression analysis was conducted to determine the predictors of discrepancies between actual and preferred hours spent in IQ testing, curriculum-based assessment/curriculum-based measurement, staff consultation, research, report writing, and the percent of time spent in general education and the three levels of prevention. These practices were selected because of their relevance to recent changes in the field and the magnitude of their discrepancies. The same four predictors were used for all of the analyses: years in practice, years until retirement, school psychologist-to-student ratio, and highest degree earned. Analyses of IQ testing ($F = 5.51$, $p < .001$, $R^2 = .111$) and curriculum-based assessment/curriculum-based measurement ($F = 2.85$, $p < .05$, $R^2 = .063$) produced statistically significant predictive models (see Table 2). Years until retirement was a significant predictor of discrepancies for both IQ testing and curriculum-based assessment/curriculum-based measurement. Predictive models for the other practices were not statistically significant.
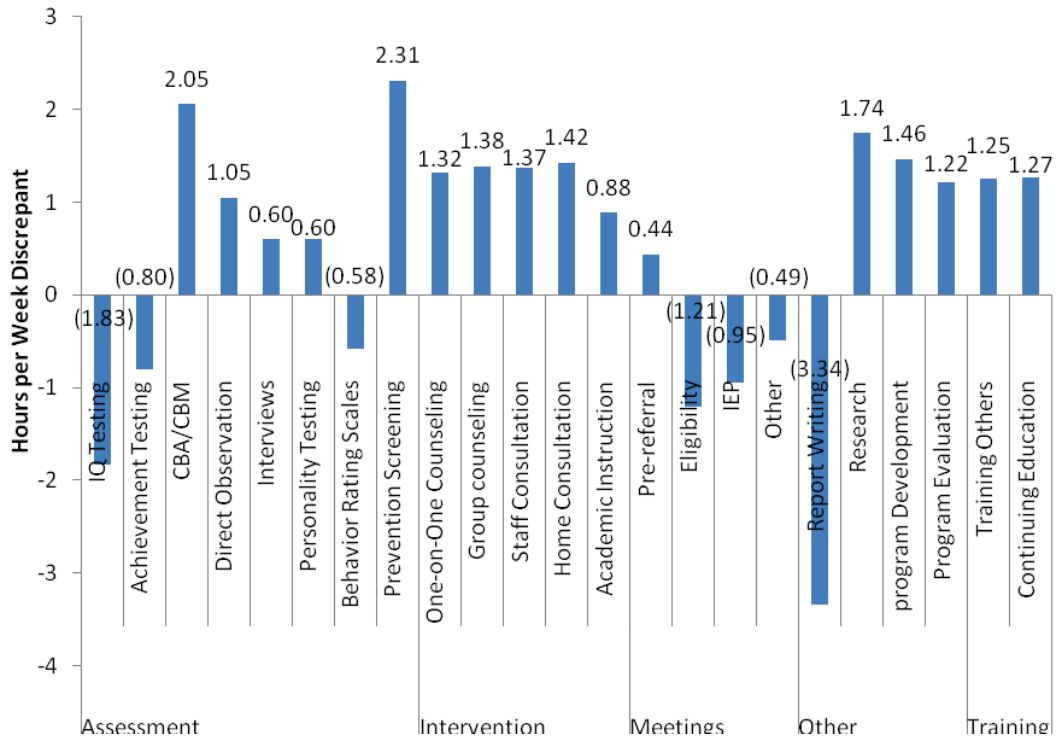
Figure 3. Discrepancies in hours per week actually and preferably spent in discrete professional activities by school psychologists

Note: All p's < .02
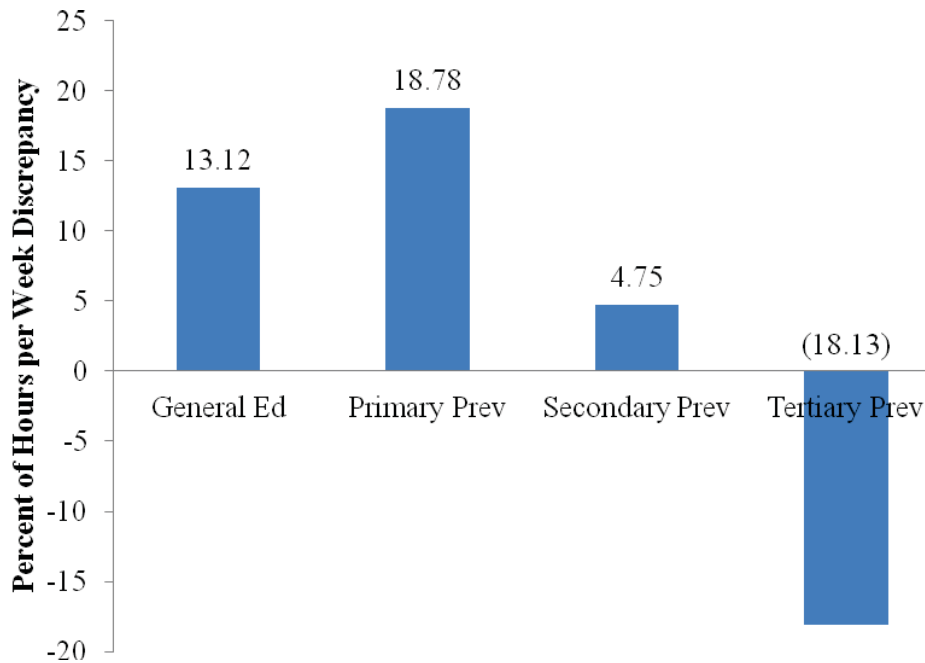
Figure 4. Discrepancies in percent of hours per week actually and preferably spent working in various levels of service delivery by school psychologists.

Note: All p's < .001.

Table 2: Multiple Regression Analysis of Predictors of Discrepancies between Hours Actually and Preferably Spent Administering IQ Tests and Curriculum-Based Assessments/Curriculum-Based Measurement

Discrete Practice	IQ Testing			CBA/CBM		
Variable	B	SD	β	B	SD	β
Years in Practice	-.063	.046	-.152**	.029	.045	.075
Years Until Retirement	-.142	.043	-.369***	.093	.041	.261*
Psychologist-to-Student Ratio	-.459	.157	-.209	.051	.155	.025
Highest Degree	.401	.330	.087	-.611	.322	-.142

Note. $*p < .05$, $**p < .01$, $***p < .001$

Barriers to Preferred Practice
To determine why school psychologists were not able to engage in their preferred practices, respondents were presented with a checklist of potential barriers and were instructed to select as many as they perceived were relevant to their practice. The percent of respondents who endorsed specific barriers is reported in Figure 5. The most commonly cited barriers were time (79.6%), administrative expectations (63.9%), school psychologist-to-student ratio (56.0%), and working in multiple schools (56.0%). The least commonly cited barriers were expectations of other school psychologists (7.9%), expectations of parents and families (15.7%), and practices of predecessor (17.1%).
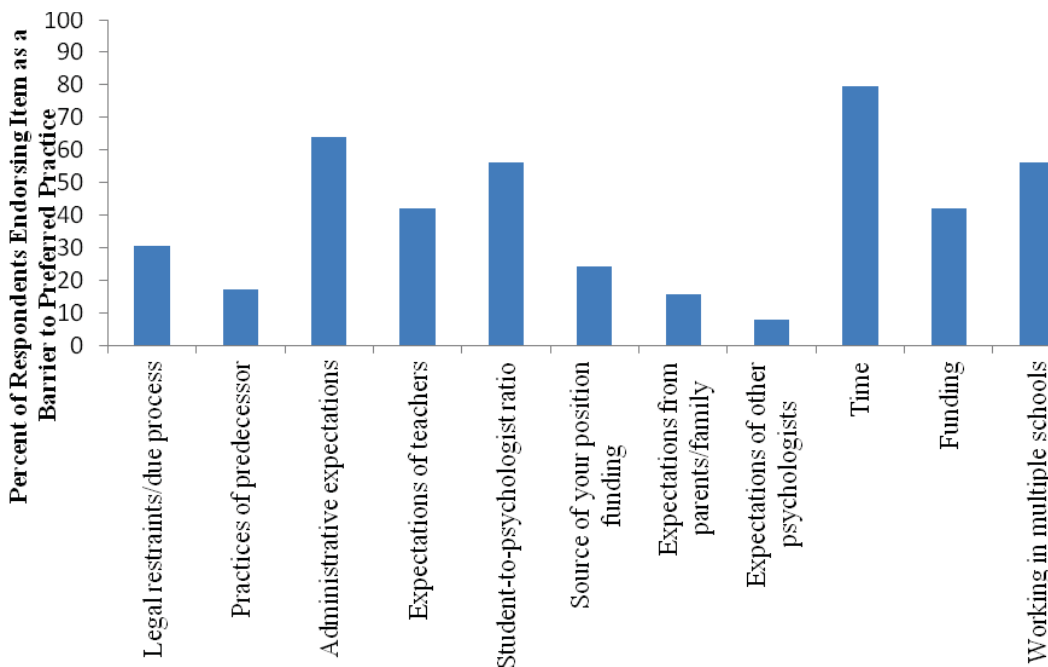
Figure 5. Percent of respondents endorsing specific barriers to preferred school psychology practice.

Discussion
The findings from the present study support previous findings that school psychologists generally experience significant discrepancies between actual and preferred practices (Hosp & Reschly, 2002). The present study extended these findings by demonstrating that the significant discrepancies exist for every discrete practice measured and for services across all three levels of prevention. Some of the larger discrepancies as measured by total numbers of hours discrepant were found for practices that are tied closely to major trends in the field. For example, IQ tests have been a major point of contention during the transition from a gate-keeper model of school psychology toward a problem-solving model (Gresham & Witt, 1997; Willis & Dumont, 2006). As the field moves toward a problem solving model the relevance of the IQ test to the assessment process seems to be decreasing. It is not surprising then to find in the present study that school psychologists report spending 5.69 hours per week administering IQ tests

but prefer to spend 1.83 hours per week less in this discrete practice. Further, IQ tests have traditionally comprised significant portions of reports written by school psychologists and the present sample reported wanting to spend 3.34 hours less per week writing reports.

As the field moves toward problem-solving, driven in part by recent changes in IDEA, it is also reasonable to expect that CBAs, including CBM, will experience an increase in usage due in large part to their strong treatment validity (Gresham & Witt, 1997; Shinn, 2008). The school psychologists in the present sample reported spending just under one hour per week administering CBA/CBMs but would prefer to spend over three hours per week in this discrete practice that is useful in planning and monitoring acacdmic interventions. It is interesting to note that when demographic variables were used as predictors to determine which practitioners were most likely to experience the discrepancies between actual and preferred practice for the discrete practices of IQ tests and CBA/CBM, years until retirement was the strongest predictor for both. These differences could be due to the fact that those newer in the field have received more training CBA/CBM practices. Based on the correlational direction of these variables, this suggests that those who are furthest from retirement are most likely to experience a discrepancy between how much time they actually spend administering IQ tests and CBA/CBMs and how much time they would prefer to spend administering them. It is reasonable to assume, then, that newer school psychologists are generally entering the field with the expectation that they will be able to engage in more problem-solving activities and fewer gate-keeping activities but the realities of practice are often more reflective of the traditional gate-keeper role.

Regarding prevention, this study found that school psychologists would prefer to spend significantly more time in primary prevention activities and secondary prevention activities than they do at present. In fact, they would prefer to spend 190.47% more time in primary prevention than they presently do. Conversely, respondents would prefer to spend 57.06% less time in tertiary prevention than they do at present. In a study school psychology counselors in Norway, Idsoe (2006) found that professional activities related to systems-level prevention strongly predicted job satisfaction, job commitment, and organizational commitment; whereas activities related to individual student treatment activities did not. Therefore, it appears that school psychologists are embracing the recent trend toward systems-level service delivery that is promoted in the most recent *Blueprint* for school psychology training (Ysseldyke et al., 2006) but systems-level service delivery is still more of an ideal than a typical practice.

Another contribution of the present study is the inclusion of perceived barriers to preferred practice. Some researchers have speculated that increasing student-to-psychologist ratios and teacher expectations of services have been barriers to preferred practice but little empirical research has validated these perceptions with a practitioner population (Curtis, Grier & Hunley, 2004; Gilman & Medway, 2007). The present study found that over half of all school psychologists agreed with Curtis and colleagues that the ratio of students to psychologists was a major barrier to preferred practice. Time was the most commonly cited barrier to preferred practice but it should be noted that time was significantly positively correlated with the student-to-psychologist ratio (Pearson $r = .21$). Working in multiple schools was also endorsed by over half of respondents and was the only other barrier significantly correlated with time (Pearson $r = .20$). Other than the time-related factors, the other most commonly cited barrier was administrative expectations, which was endorsed by over two-thirds of respondents. An important next step for the field of school psychologist will be build on the current efforts at role expansion that have been championed by many including the National Association of School Psychologists by systematically addressing the malleable factors that have now been identified as barriers.

The data from the present study were drawn from a larger survey packet that included 10 pages and took about 45 minutes to complete. The overall response rate of the study (21.6%) is lower than similar surveys of school psychologists but likely reflects the substantially greater length and intensity of this survey than most. This is a common limitation in research involving national surveys of school psychologists. Several recent national surveys of school psychologists have received low response rates (Chafouleas, Clonan, & Vanauken, 2002, 37%; Stinnett, Havey, & Oehler-Stinnett, 1994, 31% usable). Another limitation of the study is the selection of school psychologists from an organization membership list because not all school psychologists join national organizations. Given the lower response rate, it is possible that those who did not respond could be systematically different than those who chose to respond. Therefore, interpretations of the present findings should be made in light of this fact.

Conclusion

As school psychology in the United States sits at a crossroads of models, undergoing a change from the traditional gate-keeper orientation to the more recent problem-solving orientation, it is not surprising to find that there is some discrepancy between what practitioners prefer to do and what they actually do. Such was the finding of the present study. Although this discrepancy is nothing new, it is clear that the current specific discrepancies reflect changes in areas of practice relevant to the new trends in the field. School psychologists want to do more assessments that inform interventions and fewer assessments that inform placement decisions. They want to spend more time involved in systems-level service delivery and less time working with the most severe individual-student problems. It appears that administrative expectations and factors that drain time from current practitioners, such as student-to-psychologist ratios and working in multiple schools are the primary barriers to achieving preferred practices. Therefore, it is incumbent on the field and those who supervise school psychologists to reduce these barriers and allow school psychologists to provide more systems-level and intervention-relevant services if we are to get past the crossroads and into a problem-solving reality. Since school psychology as a discipline varies in terms of scope and degree of professionalization internationally, it will be interesting to see if the changes occurring in the United States will be demonstrated in other countries. School psychologists in other countries and those that work with them might need to prepare for similar changes in the near future.

Appendix:
Definitions of the 23 Discrete School Psychology Practices and the Levels of Prevention

Assessments
- *IQ/Ability*: Administering and scoring cognitive assessments
- *Achievement (non-curriculum based)*: Administering and scoring standardized norm-referenced tests of achievement
- *Curriculum Based Assessment/Measurement*: Short-duration probes that measure mastery of general outcomes of basic academic skills (e.g., 1-minute oral reading fluency)
- *Direct Observations*: Observing student behavior in the school context
- *Interviews*: Direct conversations with students, staff, and/or family about student performance or behavior
- *Personality / Mental Health*: Administering and scoring measures of student personality or mental health (e.g., personality inventories)
- *Behavior Rating Scales*: Administering and scoring measures of student, staff, or family perceptions of student behavior
- *Prevention Screening*: Administering and scoring measures that are designed to identify the needs of all students and not specific to special education

Interventions
- *One-on-one counseling*: Direct support to students for mental health concerns
- *Group counseling*: Direct support to students in a group format for mental health or social concerns
- *School Consultation with staff*: Working with staff to support student needs
- *Consultation with parent and/or family*: Working with family to support student needs
- *Academic Instruction*: Direct academic support to students, often in a group setting

Meetings
- *Pre-referral / Student Assistance Teams*: Meetings to discuss student needs and arrange supports outside of special education
- *Eligibility / Evaluation Summary*: Meetings to discuss the results of individualized testing for the purpose of determining special education eligibility
- *IEP Team*: Meetings to discuss a students' Individualized Education Plan for special education.
- *Other*: Any meetings that school psychologists attend other than the three listed above

Programming/Research/Writing
- *Report writing*: Writing the results of special education assessments or other assessments that will be included in student files.
- *Research*: Using scientific method and procedure to answer empirical questions (includes the writing and dissemination of the results of research)
- *Program Development*: Creation and implementation of programs in schools to support student development

- *Program Evaluation*: Using assessment to determine if programs are being implemented with fidelity, leading to satisfaction among stakeholders, and leading to desired outcomes

Professional Development
- *Professional Development of Others (Training)*: Providing professional development training to others, generally in the form of in-service staff trainings
- *Your Own Continuing Education*: Attending staff trainings, attending conferences, and completing self-study to build or maintain professional competence

Levels of Prevention
- *Primary, Universal Prevention*: Assessment and intervention services for all students in a school to prevent problems
- *Secondary, Targeted Intervention*: Assessment and intervention services for students at-risk
- *Tertiary, Intense Intervention*: Assessment and intervention services for students with significant problems

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