



A Comparison of Rural and Urban Secondary School Career Guidance Services

By:
Cheryl W. Neale-McFall, Ph.D., and Eric W. Owens, Ph.D.
West Chester University of Pennsylvania

November 2016

This project was sponsored by a grant from the Center for Rural Pennsylvania, a legislative agency of the Pennsylvania General Assembly.

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Executive Summary

Professional school counselors play integral roles in the lives of their students, most notably in the area of helping students plan for life after high school. Research from Hurwitz and Howell (2013) shows that interventions by school counselors can have a positive influence on students and their post-graduation outcomes. This study, conducted in 2015 and 2016, examined the services provided by rural and urban secondary school counselors across Pennsylvania. Specifically, this research examined historical data on per pupil spending on guidance services across the commonwealth and used survey data of secondary professional school counselors to identify the availability of resources, the needs of students and interventions used to meet those needs, counseling curriculum development, and guidance on STEM-related education and careers.

Key Findings

Per Pupil Spending. For each year examined (2003-2013), the research found there were significant differences in spending between rural and urban districts. Counselors in rural districts received significantly less per student in budgetary allocations.

Staffing. The research found that there were fewer counselors in rural schools than urban schools and higher caseloads of students for rural counselors than urban counselors. In addition, counselors in rural schools spent less time on career guidance and more time on administrative tasks, such as administrative meetings, bus duty and classroom coverage.

Expectations and Resources. Counselors in urban districts were significantly more likely to believe their students would attend 4-year colleges directly after graduation. Counselors in rural districts were significantly more likely to believe their students would attend 2-year colleges, participate in vocational training, join the military, and enter the workforce directly after graduation. Counselors in urban districts were significantly more likely to use purchased career counseling instruments and were also significantly more likely to have computers in their offices for student use.

Interventions. In the survey, counselors were asked to identify specific career counseling interventions that they use with their students. For 22 out of the 25 career interventions listed in the survey, urban counselors indicated greater use of the interventions, such as career values assessments, college search processes, financial aid planning and military recruiter visits, with students than rural counselors.

Guidance Curricula. Both rural and urban districts were shown to fall short of statewide requirements of a Comprehensive School Counseling Curriculum under Chapter 339 of the Pennsylvania School Code and national recommendations (Recognized ASCA Model Program or RAMP).

STEM Education and Career Guidance. The research indicated there were significantly more STEM-related classes being offered in urban districts than in rural districts. For example, more than 25 percent of rural counselors were not discussing STEM careers with their students.

Socioeconomic Status, Educational Attainment, and Per Pupil Spending. Overall, as percentages of Free or Reduced Lunch (a measure of socioeconomic status) increased across rural and urban districts, per pupil spending decreased. In terms of educational attainment, as the percentage of residents without a high school diploma increased, per pupil spending decreased, and as the number of individuals in the community with a college degree increased, per pupil spending increased. These data suggest opportunity gaps for students in rural districts, as rural districts were more likely to include those without a college degree and higher Free and Reduced Lunch percentages. These opportunity gaps often lead to gaps in achievement.

Conclusions

When counselors have lower caseloads, larger budgets, and more resources, such as career counseling inventories, they are able to commit more time to the post-graduation needs of their students. As students receive greater access to guidance services, they are exposed to a wider range of career

opportunities, such as STEM-related careers, 4-year colleges, and technical schools, which then allows counselors to match students’ interests, values, and skills with appropriate career options.

Based on the study results, the researchers offered several policy considerations for state and local policy makers aimed at positively influencing the career guidance needs of students. State and local policy makers are encouraged to increase dedicated funding for career guidance services in rural districts, and school counselors are encouraged to secure external grant funding. Districts and counselors are also encouraged to work with community stakeholders to determine other possible sources of private funding that may assist rural counselors and, in turn, assist students. In addition, districts are encouraged to partner more closely with local universities to develop opportunities, such as practica and internships, for school counseling trainees. School counselors are also encouraged to engage in more professional development opportunities, with specific focus on student needs, counseling interventions, and STEM education and careers.

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Introduction

Professional school counselors play a critical role in the educational development of students; understanding this role is imperative when assessing the post-secondary guidance process. Postsecondary career guidance services refer to those functions performed by professional school counselors in assisting and advising students when planning for the many choices available following their graduation from K-12 schools. Providing all students with effective college and career counseling services is a cornerstone to the American School Counselor Association's (ASCA) National Model for school counseling programs, as well as to state models that build off of this foundation (ASCA, 2012). The Student Standards developed by the American School Counselor Association speak to three areas where school counselors should be assisting students in their development: academic, personal/social, and occupational. These standards form the basis for school counseling programs nationwide, and they are the foundation of school counseling services provided across the commonwealth.

The School Counselor's Role in Post-Secondary Planning

Research shows that professional school counselors can have a significant impact on a variety of student outcomes, specifically those related to planning for life after graduation (Hurwitz and Howell, 2013). However, prior to a discussion of the literature specific to these issues, it is important to note that there is a dearth of current research on the issues facing professional school counselors specific to their locale (i.e. rural or urban communities).

Although there is little research differentiating the differences for urban and rural school counselors, the literature does support the importance of all school counselors in the development of students' post-secondary outcomes. For example, Eccles, Vida, and Barber (2004) found that early college planning was an important predictor of high school course enrollment, academic performance, and successful full-time college attendance. In addition, providing students with college and career counseling services appears to have a positive impact in reducing the total number of disciplinary incidents, such as significantly lowering the rates of student suspensions in schools (Lapan, Whitcomb,

and Aleman, 2011). Although research strongly suggests the importance of school counseling services, studies estimate the national average ratio of students to school counselors to be 479 students for every one school counselor (Young, 2004), and cite the large counselor caseloads as a fundamental cause of the insufficient counseling services that are being provided to high school students in the U.S. (e.g., Public Agenda, 2010). The American School Counselor Association recommends that school counselor caseloads, defined as the ratio of students per school counselor, not exceed 250 students (ASCA, 2012). This ratio was developed through comprehensive research conducted by the American School Counselor Association (2012), in conjunction with the Educational Trust and additional stakeholders in national school systems.

However, most schools are falling far short of this goal. For example, Carmichaels High School in rural Greene County employs only one school counselor for grades 7-12, with a ratio of almost twice that of the American School Counselor Association recommendation (Carmichaels Jr./Sr. High School, 2014).

Providing all students with effective college and career counseling services is a critical element of the school counselor's position (Gysbers and Henderson, 2012). To familiarize students with options and build effective counseling relationships, school counselors engage in a variety of interventions to assist students in the process of post-secondary transition. For students to be ready for the 21st century workplace, they need professional school counselors to help them identify their interests, encourage them to ask questions, initiate career days and college fairs, create career curricula, and keep them up-to-date on research and available resources (Feller, 2003; Gysbers, 2013).

Feller (2003) states that today's workforce is, "expected to be more competent in communication, math, computer technology, self-management, problem-solving, and decision-making skills" (p. 263-264). Helping students to identify their skills and interests is just one step in the post-secondary guidance process. Assisting students in successfully planning for their future after graduation can be overwhelming for many school counselors, especially given the number of other counseling and non-counseling related

responsibilities that are being asked of them (Wahl and Blackhurst, 2000; Morgan, Greenwaldt and Gosselin, 2014). For example, many school counselors are inundated with testing responsibilities, classroom coverage, and lunch-time monitoring, which takes away from their time to perform counseling duties. The American School Counselor Association (2012), through continued research and revision of the *ASCA National Model*, has developed a list of examples of appropriate and non-appropriate duties for professional school counselors (See Appendix A).

The importance of the role professional school counselors play in post-secondary student outcomes should not be understated. Lapan, Kim, and Kosciulek (2003) contend that the “transition from high school has been understood as one of the most difficult developmental challenges confronting adolescents” (p. 329). Dellana and Snyder’s (2004) study also highlights the significant impact that professional school counselors can have on students’ post-secondary attitudes. The researchers used questionnaires to assess high school students’ levels of satisfaction on future career outlooks as well as quality of school counseling. The study found a robust, positive correlation between students’ reported assessment of the quality of the counseling they received with their future outlooks (Dellana and Snyder, 2004).

While much of the research regarding these issues is dated, two recent studies also support these assertions. In a quantitative study of various school stakeholders across the U.S., Hurwitz and Howell (2013) found that school counselors have a positive impact on high school students’ ability to achieve academically and improve their college readiness. Belasco (2012) found similar results in a longitudinal study of school counselors’ impact on postsecondary enrollment, stating, “Currently, there is no professional more important to improving college knowledge than the high school counselor” (p.782).

Professional School Counseling in Rural Schools

The research suggests there are significant disparities regarding where school counseling resources are being directed and which students benefit most from these services. As per pupil expenditures decrease, school counselor caseloads typically increase. In general, schools that spend less

money for each student who is in attendance are likely to have substantially higher ratios of students to school counselors (Lapan, 2011). In these schools, students are served by school counselors with extremely large caseloads, which can make the provision of comprehensive post-secondary counseling very difficult. In addition, counselors in these underserved schools not only have to focus on career planning, but also on the additional duties for which they are responsible (Lapan et al., 2011).

Research shows that rural youth are less likely to have access to school counselors and are also less likely to engage in postsecondary preparation activities, such as college campus visits and career exploration (Griffin, Hutchins, and Meece, 2011). While the socioeconomic status of a community is not the sole factor in access to postsecondary preparation, the literature suggests it does play a role. Data point to the fact that rural schools have a shortage of resources and restrictions in funding streams (Breen and Drew, 2012; Gandara, Gutierrez, and O’Hara, 2001). Breen and Drew (2012) found that rural school counselors feel they lack the resources necessary to effectively perform their job duties and are disconnected from services that are important to the success of their students.

The personal experience of the rural school counselor is also noteworthy in this discussion. Feelings of isolation, a lack of resources and funding, parental and community influences, and an uncertain separation between work and private life are a few of the challenges facing rural school counselors (Morrisette, 2000; Sutton and Pearson, 2002; Worzbyt and Zook, 1992). In turn, these negative factors may adversely impact the counselor’s ability to prepare students for post-secondary planning. Rural school counselors also feel overwhelmed as a result of multiple responsibilities and large caseloads (Sutton and Pearson, 2002). The latter theme was linked to the fact that the school counselor might be the only counselor at the school or in the area. “A large, resource-rich school may be able to designate one counselor specifically to coordinate college applications or work with special needs students. In the small, understaffed school the realities of limited resources demand that the counselor, or a few counselors, take responsibility for the total range of student needs” (Sutton and Pearson, 2002, p. 271).

The rural school counselor is left to balance post-secondary guidance counseling with a host of other demands, such as consulting and collaborating with teachers and parents, creating school counseling curricula, responding to crisis situations, and providing mental health counseling (Morrissette, 2000; Sutton and Pearson, 2002; Worzbyt and Zook, 1992). This situation leaves little or no time to focus on students' individual interests and career aspirations. Also, rural schools often have a single counselor to serve an entire school, or perhaps multiple schools. Being the only counselor in a school leaves one with few opportunities in which to consult and collaborate with colleagues. While professional school counselors in rural communities may feel isolated professionally, they may conversely feel as though they lack privacy due to the close-knit communities in which they live. School counselors are often left with the complications of drawing professional boundaries and maintaining a work-life balance (Morrissette, 2000; Sutton and Pearson, 2002).

Lapan et al. (2003) found that support from school counselors and teachers is significant when educating students about existing careers, as well as matching students' interests with their abilities. However, the role that familial influence plays cannot be discounted. Carlson and Knittel (2013) argue that high school students often report that their families play a significant role when identifying career interests. In addition, Sutton and Pearson (2002) found, through interviews with rural school counselors, that students often lack knowledge about careers and educational opportunities that exist outside of what is expected or normed in their communities. Students living in rural communities are also more likely to stay close to family, remain in close proximity to their hometowns, and are often encouraged by their parents to stay home and avoid opportunities that would require them to move away (Sutton and Pearson, 2002). As a result, it is not surprising that rural adolescents tend to have lower expectations regarding college attendance and more often enter the workforce immediately after graduation (Lapan et al., 2003).

While beginning a career immediately upon graduation from high school is often viable and desirable, these decisions should be made after careful consideration of every opportunity, not because students are simply unaware of alternatives. It is unadvisable for students to enter the workforce

immediately upon graduation from high school merely because they were not aware of other options, felt intimidated by the thought of applying for college loans, or simply had no one to talk to about their career aspirations. The research regarding college attendance and students in rural schools is helpful in better understanding these issues. For example, Griffin et al. (2011) found that rural youth are less likely to have access to guidance services and are therefore less likely to engage in post-secondary preparation activities, such as college campus visits and career exploration. Similar results were found by Provasnik et al. (2007) regarding rates of college attendance and rural youth.

These studies highlight the crucial role that the school counselor plays in the life of a student. But are we setting up rural school counselors for failure? Worzbyt and Zook (1992) write, “Staggering workloads, low salaries, meager resources, shortage of staff development opportunities, a high rate of administrative turnover, and difficulties attracting needed personnel are just some of the factors that plague small rural schools” (p. 344). Breen and Drew (2012) found similar results in their more recent study of the experiences of rural school counselors. Likewise, Monteiro-Leitner et al. (2006) found that rural schools often lack the resources to implement effective school counseling programs. These are the very dynamics that make it difficult, if not impossible, for school counselors to provide thorough, effective, and comprehensive post-secondary counseling and career preparation in rural schools.

Career Counseling in the 21st Century

In addition to the factors previously described, the issue of the declining performance of U.S. students in Science, Technology, Engineering, and Mathematics (STEM) is also an area of concern. Because professional school counselors implement career guidance services, they have the ability to inform and encourage students to engage in these courses and discover the wide-range of careers in STEM fields. Issues related to STEM education have become especially important in areas of the country where new technologies are advancing as a result of the search for alternative fuels. For example, the process of unconventional gas development, especially in the rural Marcellus Shale region of

Pennsylvania, has brought a need for highly trained workers to develop what is estimated to be the largest natural gas region in the U.S. (Kargbo, Wilhelm and Campbell, 2010).

The world of work is constantly changing, and school counselors need to stay abreast of these changes in order to provide quality counseling services to their students. While the 21st century workforce continues to change, so do the career skills required of that workforce and these skills will be quite different than what was expected of previous generations. Many of these shifts in career readiness and necessary skills are related to growth in STEM occupations (Berube, 2014; Carlson and Knittel, 2013). As technology develops at a breakneck pace, it is imperative that professional school counselors are aware of the rapidly changing world of work and the skills required in these burgeoning career fields (Carlson and Knittel, 2013; Schmidt, Hardinge, and Rokutani, 2012).

While not solely necessary for success, an element in the development of students who will be prepared for STEM-related careers is the availability of advanced coursework (Carlson and Knittel, 2013; Schmidt et al., 2012). Carlson and Knittel (2013) state, “Academic coursework in high school lays the foundation for future success in STEM-rich careers. Engagement in a comprehensive and rigorous academic program increases student academic esteem and skills that lead to future success in a competitive, global workplace” (p. 117). However, the opportunity for student success in advanced coursework may not always be possible, especially in cash-strapped schools with limited resources and a lack of community support, such as those schools often found in rural areas.

Providing students with information on STEM fields is an important aspect of career counseling. Schmidt et al. (2012) write, “It has become increasingly apparent that school counselors need to increase their awareness of 21st-century career opportunities, particularly STEM-relevant information” (p. 27). But, just as professional school counselors face challenges in providing post-secondary counseling in general, the research suggests similar difficulties associated with counseling around STEM-related careers. These challenges include lack of time, lack of training on STEM careers in graduate programs, parental influences away from STEM-related careers, and large caseloads (Schmidt et al., 2012). These negative

factors are only exacerbated when a school cannot afford to offer advanced courses, or there simply is not sufficient interest in STEM-related coursework to justify the resources required.

The importance of advocacy and stakeholder collaboration is important when working with students who may be interested in STEM-related careers. School counselors are encouraged to share STEM information with parents, which is particularly significant given the vital role families play in their children's post-secondary interests (Carlson and Knittel, 2013; Schmidt et al., 2012). Carlson and Knittel (2013) discuss the critical role professional school counselors play when counseling students about STEM-careers. This role can be of significant importance when working with minority students, who are less likely to pursue STEM careers, as well as rural students who are more likely to enter the workforce directly after high school (Berube, 2014; Lapan et al., 2003; Schmidt et al., 2012).

Factors Influencing Secondary Guidance Services

State government also plays a crucial role in how services are provided across Pennsylvania. For example, Title 22, Chapter 339 of the Pennsylvania School Code requires all public school districts to have a comprehensive guidance plan for children in kindergarten through 12th grade (22 PA §339). Enacted on May 31, 2008, Chapter 339 is aligned with the American School Counselor Association National Model, which focuses on all developmental domains of students. Furthermore, the required plan is to include postsecondary career planning and counseling services from the time students begin school until the time of their graduation (22 PA §339). It is important to note that the law requires school counselors to talk to all students about the array of careers and post-secondary options that exist, and that counselors cannot exclude or discourage students from exploring careers due to potential barriers or biases. Under Chapter 339, the Pennsylvania Department of Education is responsible for monitoring school district compliance with the law, and penalties for failure to comply may include withholding state and federal education funding until such time as the district is in compliance (22 PA §339).

In addition to Chapter 339, Title 22, Chapter 12 of the Pennsylvania School Code requires postsecondary planning in schools throughout the commonwealth. This law discusses the overall

development of each student, which also addresses the career development processes of Pennsylvania's children (22 PA §12). Chapter 12 explicitly requires schools to deliver student services that "provide career information and assessments so that students and parents or guardians might become aware of the world of work and of a variety of career options available to individual students" (22 PA §12). Not only is it a school counselor's responsibility to help develop their students' career awareness, it is a legal requirement.

Another positive influence on the career guidance of Pennsylvania's children can be found in the Pennsylvania Core Standards. Specifically, Subject Area 13 of the Core Standards (Career Education and Work) speaks directly to the importance of developing comprehensive postsecondary planning in the K-12 educational experience (PA Department of Education, 2015). This Core Standard includes four categories: (1) Career Awareness and Preparation, (2) Career Acquisition, (3) Career Retention and Advancement, and (4) Entrepreneurship. Each category focuses on specific skill areas that help students develop the ability to make well-informed decisions about their futures, post-graduation (PA Department of Education, 2015). The school counselor can play a key role in helping students to develop these skills by providing post-secondary counseling and a counseling curriculum that includes a focus on career development.

Conclusion

The literature is clear that school counselors have a positive impact on a student's decision to go to college, rates of college application, academic performance, and successful full-time college attendance (Belasco, 2012; Eccles et al., 2004; Hurwitz and Howell, 2013; McDonough, 2005). The research also indicates that the college plans of low-income students are more likely to be influenced by their high school counselors (DeYoung and Lawrence, 1995), and students of parents with lower levels of educational attainment benefited most from school counselors (Kim and Schneider, 2005). However, these students are least likely to have school counselors, more likely to have underprepared counselors,

and most likely to have counselors who are forced to give up career guidance counseling for other counseling and non-counseling-related tasks (Cabrera and La Nasa, 2001; McDonough, 2005).

Goals and Objectives

The research goals were to: better understand the resources available to secondary (grades 7-12) professional school counselors across Pennsylvania, and how counselors employ those resources when serving students in their post-secondary planning; compare the resources and guidance services available to rural and urban school counselors; and examine STEM education across the commonwealth, with particular focus on available resources and how professional school counselors engage students in STEM-related education and career goals.

To meet these goals, the researchers reviewed secondary data for the 10-year period of 2003-2013 specific to district expenditures on school counseling services, as well as the amount spent per student. They also collected secondary data on socioeconomic status (2013) and educational attainment (2008-2012), and surveyed a representative sample of professional school counselors statewide on a variety of topics related to resources and post-secondary guidance services provided to students in grades 7-12. These survey data included information on human, financial, and technological resources, use of time, use of counseling interventions, curriculum development, the value and importance of various post-secondary opportunities, and the availability, value, and importance of STEM education.

Methodology

The researchers used data gathered by the Pennsylvania Department of Education (PDE) and the U.S. Census Bureau's American Community Survey (ACS), as well as survey-based data from professional school counselors throughout Pennsylvania in both urban and rural districts.

Per Pupil Spending

The researchers used secondary data from PDE to evaluate per pupil spending on guidance services across the commonwealth. Specifically, data were obtained on annual district spending on guidance services, as well as Average Daily Membership (ADM) for the years 2003-2013. Per pupil spending on guidance services was computed for each district by dividing the total amount spent on Guidance Services by the ADM for the district. Each district was then coded as either rural or urban, based on the Center for Rural Pennsylvania's definition as follows: a county or school district is rural when the number of persons per square mile within the county or school district is less than 284; counties and school districts that have 284 persons or more per square mile are considered urban.

There are 500 public school districts in the commonwealth, 497 of which were used in the analysis of secondary data. Of these 497 districts, 234 are rural and 263 districts are urban. Three districts were removed from the analysis: Bryn Athyn, Midland Borough, and Wallenpaupack. Bryn Athyn was removed because its students attend neighboring school districts and the district itself has no physical school buildings. Wallenpaupack was removed because data from PDE and the ACS were contradictory regarding county and population. Midland Borough School District was removed because the district has no high school.

The researchers calculated aggregate mean spending and standard deviations for rural and urban school districts and compared the differences in mean spending per pupil using t-tests. Variance was first calculated using Levine's test to determine if equal variances should be assumed or not assumed, and the appropriate test was then analyzed. The researchers did not adjust the values for inflation due since they compared means for urban versus rural for each year and not across years. Adjusting for inflation would not change the significance of the results.

Educational Attainment

The researchers analyzed educational attainment data from the ACS for 2008-2012. The original data included five separate categories that indicated the percentage of adults 25 years of age or older that

had: (1) No High School Diploma, (2) a High School Diploma, (3) Some College (No Degree), (4) an Associate's Degree, and (5) a Bachelor's Degree or Higher. For the analysis, the data were delineated into three separate groups: (1) No High School Diploma, (2) High School Diploma/No College Degree, and (3) College Degree. Each district was then coded as either rural or urban, based on the Center for Rural Pennsylvania's definition. They used the descriptive statistics to determine if a correlation existed between mean per pupil spending and educational attainment. To do so, the mean per pupil spending for the years 2008-2012 was obtained for both rural and urban districts, as were mean percentages of persons in each of the educational attainment categories during this period. Correlations were then conducted between the two data elements for both rural and urban districts, resulting in six different analyses of the data.

Free or Reduced Price Lunch

The data on Free or Reduced Price Lunch from PDE were separated into percentages for 2011, 2012, and 2013. According to the National Center for Education Statistics: "Free or reduced price lunch is commonly used to measure school poverty because (1) it is found consistently across survey collections (unlike other measures such as household income); (2) at the district level, it has a strong correlation with district poverty; and (3) at the student level it is correlated with measures of socioeconomic status (SES) reported at the student/household level," (2010). For a student to be eligible for the free lunch program, family income must be at or below 130 percent of the poverty level. For eligibility for reduced price lunch, family income must be less than 185 percent of the poverty level (Department of Agriculture, 2015).

The researchers used the descriptive statistics to compare the percentages for urban versus rural settings. In addition, they examined the financial resources available for guidance services (Per Pupil Spending) and the socioeconomic status of the community (Free or Reduced Price Lunch percentage) for rural and urban districts. As a result, Free or Reduced Price Lunch percentages from 2013 (the most

current year available) were compared with Per Pupil Spending from the 2012-2013 academic year to assess the relationship between the variables. The statistical test used for this analysis was a correlation.

The researchers also analyzed educational attainment and available financial resources. The researchers selected the percentage of no high school diploma (Category 1), high school diploma/no college degree (Category 2) and completed college degrees (Category 3) for the 2012/2013 year for both urban and rural districts and compared that to Per Pupil Spending for the 2012/2013 year by using correlations. These analyses were important to the project for a number of reasons. First, a correlation between per pupil spending and the socioeconomic status of a setting may indicate that less affluent locales may not have the available resources to provide postsecondary counseling services to students in their schools. Second, correlations between educational attainment and per pupil spending may indicate that locations where the population has lower levels of educational attainment also have fewer resources for students. Finally, if both of these measures prove significant, this begs the question of whether there exists a cycle where students in some school districts are less likely to have access to the counseling resources and interventions that are critical to postsecondary success.

Measures

Survey

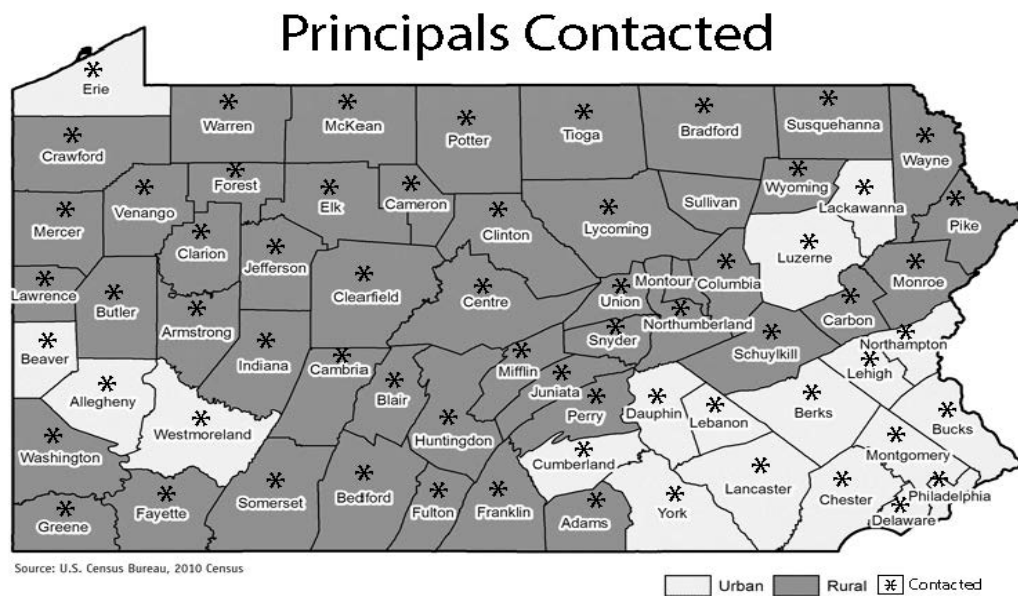
For the survey, the researchers first grouped the goals and outcomes of the project into themes, as follows: (a) resources available to professional school counselors in both rural and urban districts, (b) needs and interventions used by professional school counselors for post-secondary planning, (c) school counseling curricula in rural and urban districts (e.g. use of national and state standards), and (d) availability of STEM courses and resources. They then developed multiple questions for each theme. After several revisions, the final survey included 34 questions (See Appendix B).

To build the contact database for the survey, the researchers obtained a full list of public school buildings in Pennsylvania, with corresponding district information, from PDE's website. Schools were removed that did not include a portion of 7-12th grades. Each school was coded as either urban or rural.

Each rural middle and/or high school (n=411) and each urban middle/high school (n=796) was assigned a numeric value, and a random number generator (Stat Trek, 2014) was used to select 155 rural and 155 urban schools. The decision to choose 310 total schools was based on the power desired for the statistical analysis (Cohen, 1992).

Next, the researchers obtained the email addresses of the principals at the chosen schools and sent an email to each school principal, asking permission for the school’s professional school counselors to participate in this research. Some principals chose to share this personalized email with the school counselors at their school to let them know that they had approved participation in the study, although this was not a requirement for participation. Research has shown that advance e-mail notification from a known source increases survey response rates (Shih and Fan, 2008; surveygizmo.com, 2014); therefore, the personalized emails that were sent to the principals may have assisted in gaining participation from many professional school counselors. Figure 1 indicates the counties from which principals were randomly selected to be contacted and asked for permission to participate in the project.

Figure 1: Map of Counties where Principals were Contacted



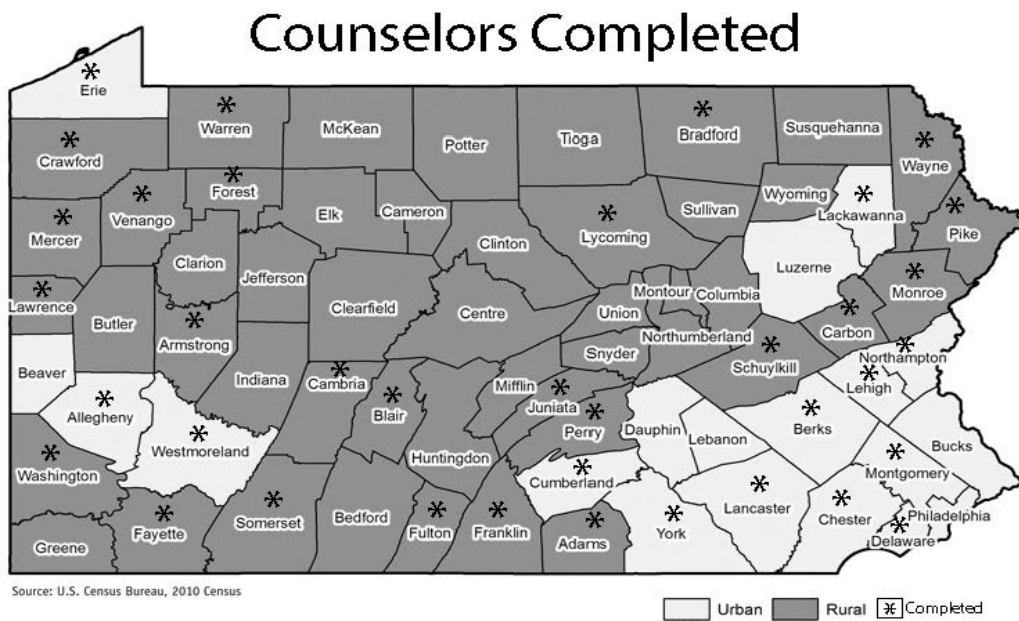
The researchers continued using the random number generator and emailing principals, and at the end of the process, had gathered 361 email addresses; 203 urban and 158 rural. Table 1 indicates the total number of principals who approved participation in the study, as well as the number of email addresses obtained for professional school counselors in these schools.

Table 1: Outreach to School Principals

Total Outreach	Rural	Urban
Principal-Approved Schools	82	73
E-Mail Addresses of Professional School Counselors	158	203

The researchers sent the email survey to the 361 professional school counselors asking them to participate in the survey. A total of 121 valid surveys were completed, 57 (47 percent) of which were from rural professional school counselors and 64 (53 percent) from urban professional school counselors, for a response rate of 34 percent. Figure 2 indicates the counties from which professional school counselors completed the survey.

Figure 2: Map of Counties with Participating School Counselors



Results

Inventory and Comparisons of Secondary Data

Table 2 and Figure 3 show the results of the data analysis on total district budgetary expenditures, guidance service spending and the amount spent per pupil for each school district statewide. The mean values for spending in each academic year for the period 2003-2013 were calculated.

Table 2: Mean Statewide Expenditures on Guidance Spending

Academic Year	District Budget Expenditures	Guidance Service Spending	% of Total Budget Spent on Guidance	Per Pupil Spending on Guidance Services
2003-04	\$37,553,836.53	\$712,854.74	1.90%	\$197.01
2004-05	\$39,481,065.99	\$741,323.78	1.88%	\$205.78
2005-06	\$41,845,709.80	\$771,798.79	1.84%	\$211.97
2006-07	\$43,796,440.28	\$803,576.96	1.83%	\$220.30
2007-08	\$46,035,547.76	\$830,665.02	1.80%	\$232.60
2008-09	\$47,205,615.38	\$844,795.43	1.79%	\$237.33
2009-10	\$48,844,552.95	\$893,435.69	1.83%	\$245.50
2010-11	\$50,385,234.78	\$920,746.54	1.83%	\$254.58
2011-12	\$49,710,885.10	\$900,108.22	1.81%	\$256.74
2012-13	\$51,322,437.61	\$927,618.73	1.81%	\$268.47

Figure 3: Mean Statewide Expenditures on Guidance Spending Per Pupil

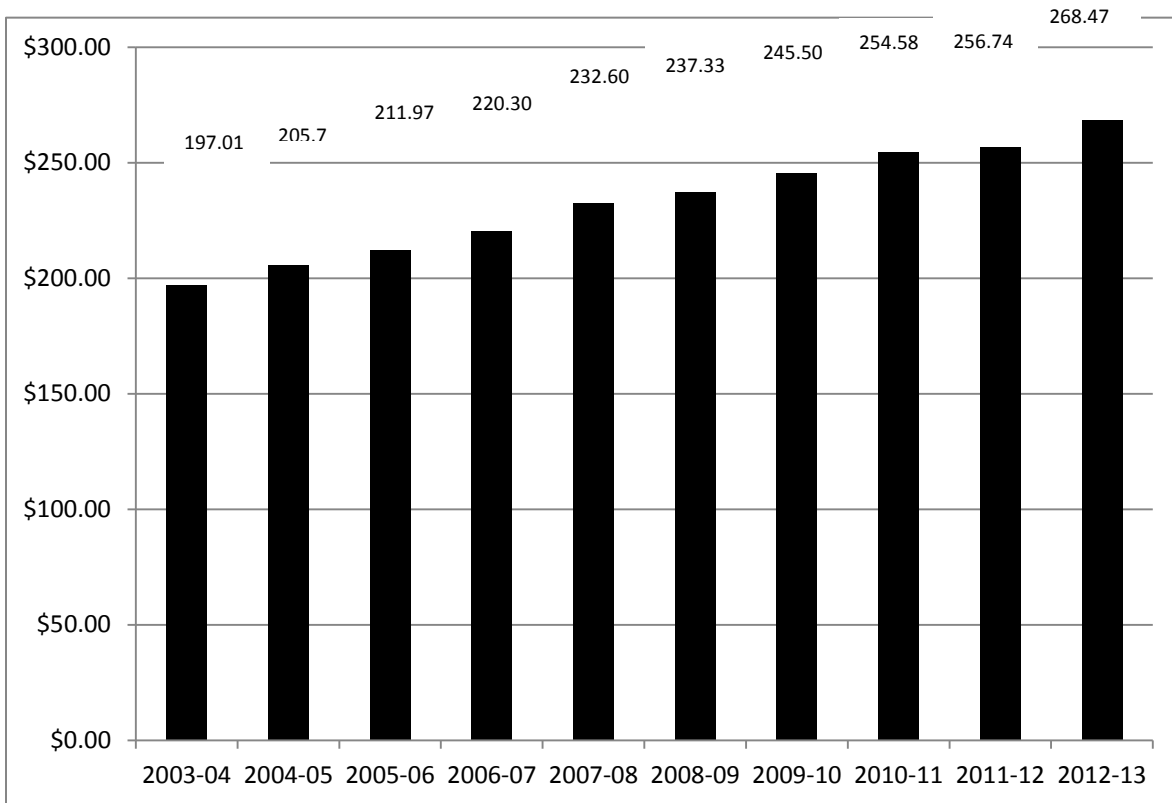


Table 3 shows that per pupil spending on guidance services was greater in urban districts for every year examined. The average difference in spending was \$20.76 per student over the course of the 10 years. Using t-tests, the mean differences were compared each year from 2003-2013. For every one of those 10 years, the difference in per pupil spending was found to be statistically significant with p values ranging from $p < .001$ to $p = .013$. In short, there is statistically no likelihood that these differences are the result of chance and there has been significantly more spending on guidance services per student in urban districts during this period. The data are provided in Table 4 and as discussed previously, are not adjusted for inflation.

Table 3: Comparison of Per Pupil Spending on Guidance Services 2003-2013

Academic Year	Average Rural Per Pupil Spending	Average Urban Per Pupil Spending	Mean Difference	Significance (2-tailed) p=
2003-2004	\$186.35	\$206.50	-\$20.15	.000***
2004-2005	\$194.14	\$216.23	-\$22.09	.000***
2005-2006	\$203.58	\$219.50	-\$15.92	.004**
2006-2007	\$209.04	\$230.41	-\$21.37	.000***
2007-2008	\$221.80	\$242.29	-\$20.49	.002**
2008-2009	\$225.71	\$247.76	-\$22.05	.000***
2009-2010	\$233.43	\$256.29	-\$22.86	.000***
2010-2011	\$242.54	\$265.33	-\$22.79	.001**
2011-2012	\$245.71	\$266.59	-\$20.88	.003**
2012-2013	\$258.65	\$277.25	-\$18.60	.013*

*statistically significant at $p < .05$

**statistically significant at $p < .01$

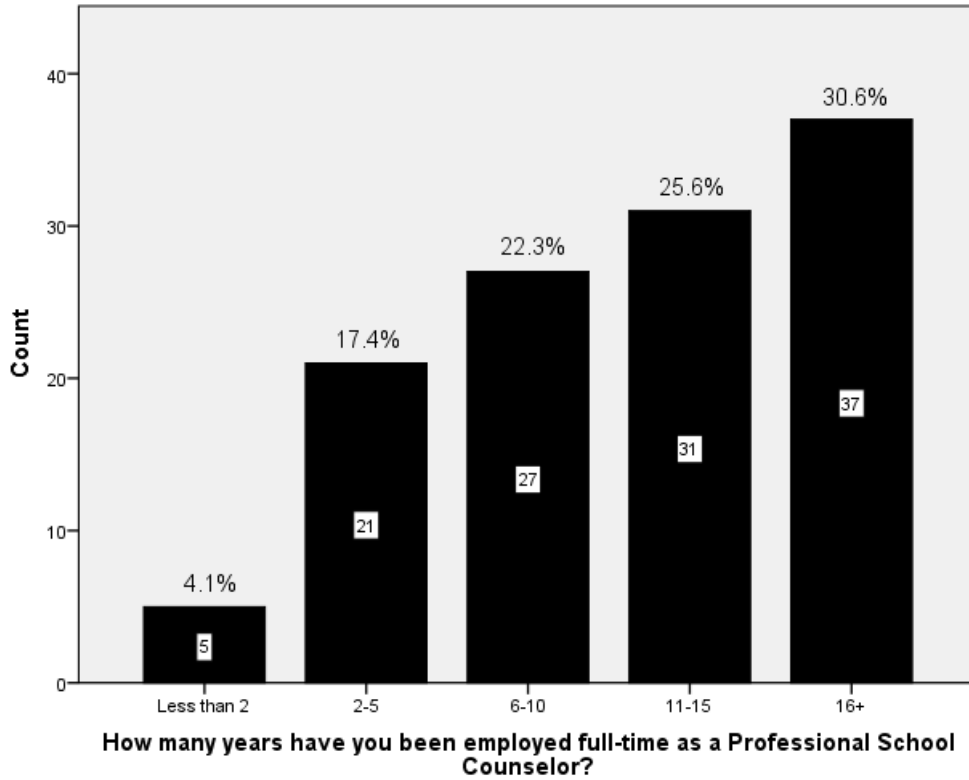
***statistically significant at $p < .001$

Inventory and Comparisons of School Guidance and Postsecondary Counseling Services

Demographic Data

According to the survey results, 25 percent of survey respondents were male and 75 percent were female. The largest percentage of respondents (30.6 percent) worked 16 or more years as a professional school counselor, and 56.2 percent indicated 11 or more years of experience (See Figure 4).

Figure 4: Length of Employment as a Professional School Counselor (N=121)



The data indicate that the majority of those serving as professional school counselors in the commonwealth have been employed for at least a decade. Comparisons of these data across urban and rural districts indicated that, overall, counselors in urban districts are more experienced than their rural counterparts. For example, 24.6 percent of rural school counselors reported having 5 years or fewer experience in the position, compared to just 18.8 percent of urban counselors. More than 81 percent of urban counselors have been in the position for 6 or more years, compared to just over 75 percent of rural counselors (See Table 4).

Table 4: Comparative Experience of Professional School Counselors (N=121)

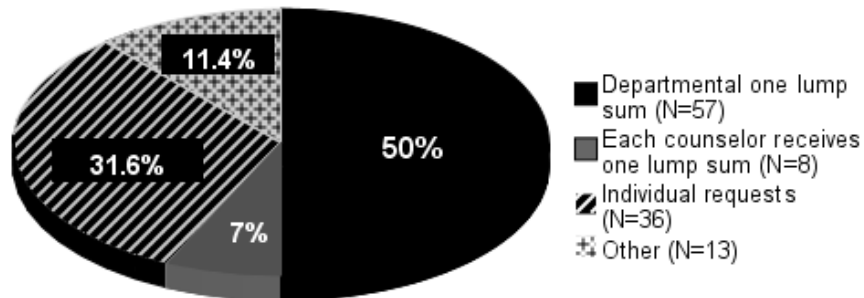
Years of Experience	Rural	Urban
Less than 2	3.5%	4.7%
2-5	21.1%	14.1%
6-10	17.5%	26.6%
11-15	21.1%	29.7%
16+	36.8%	25%

Budget

Of the 121 respondents to the survey, only 34 identified an annual budget for their school counseling program (28 percent). Of those who responded, values ranged from \$250 each year to \$20,000 a year. Respondents added qualitative comments that indicated budget allocations can be dependent on a variety of factors including: year, needs, testing supplies, and technology.

Fifty percent of respondents reported that their department receives one lump sum budget allocation, 31.6 percent reported that they make individual budget requests to administrators for review, and 7 percent reported that each counselor within their department receives one lump sum budget allocation each year. Other respondents reported a variety of different budget allocation processes, with the majority of this group indicating that they do not know how budget resources are allocated (See Figure 5).

Figure 5: Counselor Budget Allocation Processes, N=114

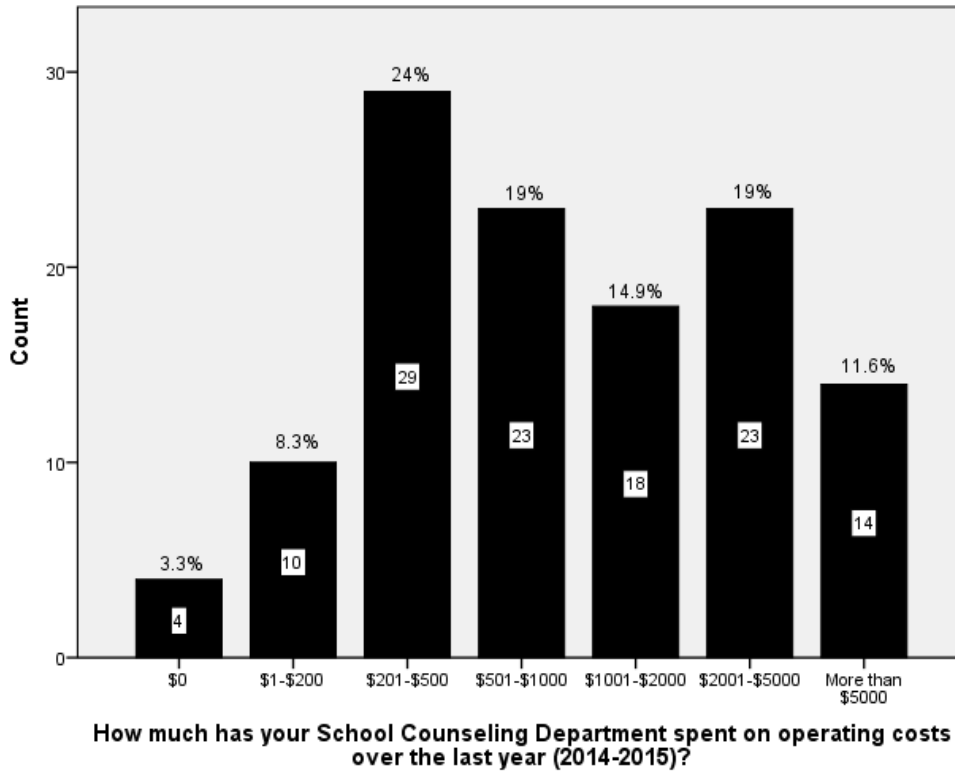


These data suggest that the budgetary processes for school counselors range widely from school to school. While half of the respondents indicated a department lump sum, that allocation may not be available to individual counselors; instead it may be allocated at the discretion of a department chair or other individual.

When asked how much their department had spent on operating costs over the past year, all 121 participants responded. Twenty-four percent of respondents said their department spends \$201-\$500, 19

percent said \$501-\$1,000, another 19 percent said \$2,001-\$5,000, 15 percent said \$1,001-\$2,000, 12 percent said more than \$5,000, 8 percent said \$1-\$200, and 3 percent said \$0 (See Figure 6).

Figure 6: School Counselor Operating Costs, N=121



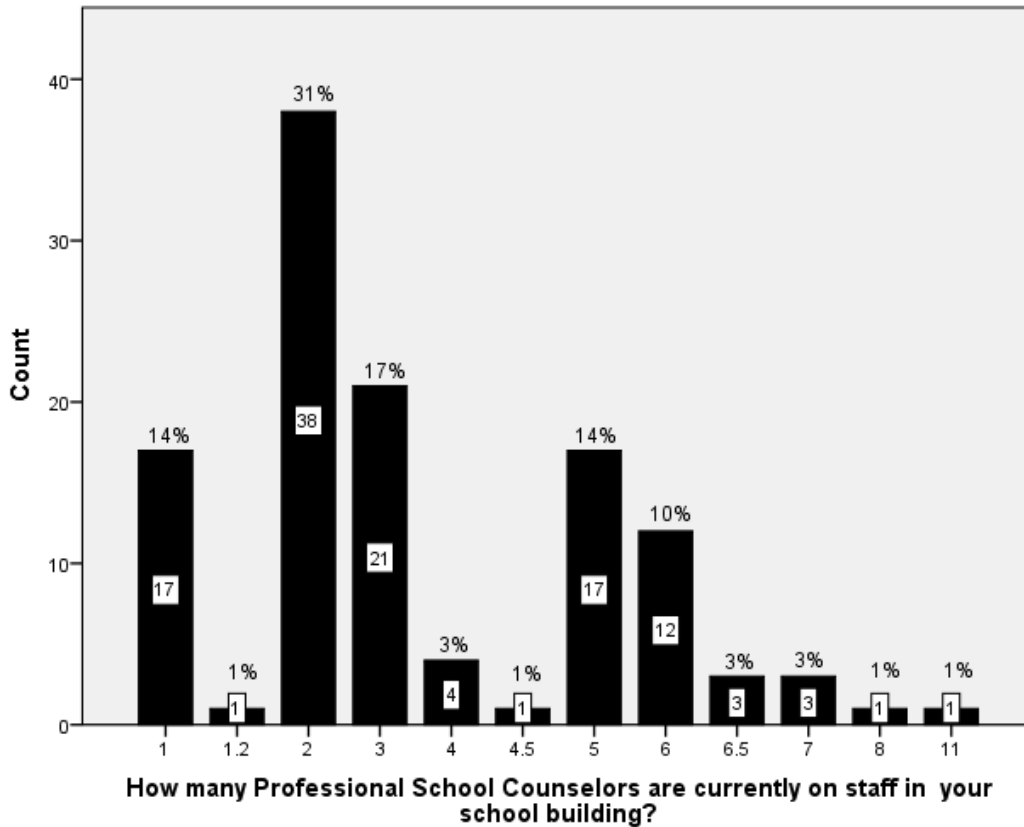
These results suggest a wide array of spending among survey respondents' schools. Departmental spending appears to be relatively evenly distributed from \$200/year to more than \$5,000/year.

Only 23 participants (19 percent) responded to the survey question on how much of their total budget is spent solely on postsecondary career counseling resources. Of those respondents, values ranged from \$0/year to \$8,000/year. Similar to their responses on overall budgets, respondents identified a number of factors that impact spending on these resources (e.g. particular annual necessities, general needs, field trips, etc.).

Number of Counselors and Counselor Caseloads (Ratios)

The majority of respondents (31 percent) said their schools have two counselors per school, with a range from one to 11 (See Figure 7).

Figure 7: Number of Counselors per School, N=119



According to the survey results, the average number of counselors in rural schools is slightly greater than two and the average in urban schools is just over four. When comparing these mean values using a t-test, the difference in the number of counselors per school is statistically significant at $p=.002$.

The survey also indicated that about 56 percent of respondents have a caseload greater than 300, which is greater than the American School Counselors Association's recommendation of 250 students per counselor.

On average, rural school counselors have larger caseloads than their urban school counselors. In urban districts, 50 percent of respondents reported having a caseload of 300 students or fewer per

counselor and in rural districts, 36.8 percent reported the same number of students per counselor. As shown in Table 5, 21 percent of rural school counselors have a caseload of more than 401, while only 11 percent of urban counselors have similarly high ratios.

Table 5: Comparison of School Counselor Caseloads, N=121

Ratio of Students to School Counselors	Rural	Urban
Less than 200 to 1	3.5%	4.7%
201-300 to 1	33.3%	45.3%
301-400 to 1	42.1%	39.1%
401-500 to 1	17.5%	9.4%
More than 600 to 1	3.5%	1.6%

Allocation of Time

Participants were asked how they allocate their time as a professional school counselor. Table 6 shows the percentage of time counselors spend on various job-related tasks, ranked greatest to least. In the *Indirect Student Services* category, some definitions may be helpful: IEP stands for Individualized Educational Program, a legal document developed by school staff for special education or gifted education; “504” refers to the development of reasonable educational accommodations under Chapter 504 of the Rehabilitation Act of 1973; FBA refers to a Functional Behavioral Assessment, often completed by a school counselor by observing a student in a classroom setting as part of an overall evaluation of the student.

Table 6: Counselor Time Allocation, N=121

Answer	Average Value
Individual Counseling - Personal/Social	18.52%
Indirect Student Services - Services for students but not directly working with students (e.g. 504/IEP meetings, paperwork, assessments, FBAs, etc.)	17.85%
Individual Counseling - Academic	16.56%
Individual Counseling - Career/Post-secondary	14.35%
Responsive Services (e.g. Crisis intervention, other forms of counseling)	13.37%
Group Counseling/Classroom Guidance - Career/Post-secondary	5.57%
Group Counseling/Classroom Guidance - Academic	4.33%
Group Counseling/Classroom Guidance - Personal/Social	4.18%
System Support (e.g. cafeteria duty, bus duty, disciplinary issues, covering classes, etc.)	3.88%
Other	1.70%

These results would suggest that professional school counselors in middle and high school settings are devoting reasonable time to the postsecondary counseling needs of their students. Between individual and group counseling interventions, almost 20 percent of a school counselor's day is devoted to career and postsecondary guidance services. It should be noted that while this finding is congruent with recommendations of the American School Counselor Association, it shows that counselors are spending almost as much time (about 18 percent) providing indirect service to students through administrative roles, such as attending meetings and completing paperwork.

Comparing how rural and urban school counselors allocate time, the data indicate urban school counselors are spending more time on individual career and postsecondary counseling than are rural school counselors. Urban counselors report spending 22.45 percent of their time on career guidance interventions compared to 17.53 percent for rural counselors. Generally speaking, urban school counselors commit more time to individual student interventions (17.23 percent to 11.79 percent), while both rural and urban counselors spend an almost equal amount of time on career counseling in groups. Rural school counselors spend more time than their urban counterparts in crisis interventions, indirect student services (e.g. administrative meetings, special education meetings, etc.), and system support (e.g. bus duty, classroom coverage, etc.), which likely draws time away from individual career counseling interventions (See Table 7).

Table 7: Time Allocation Comparison, N=121

Answer	Rural Average Value	Urban Average Value	Rural-Urban % Difference
Individual Counseling - Personal/Social	18.46%	18.5%	-.04%
Indirect Student Services	19.49%	16.68%	2.81%
Individual Counseling - Academic	16.12%	16.71%	-.59%
Individual Counseling - Career/Post-secondary	11.79%	17.23%	-5.44%
Responsive Services	13.68%	12.84%	.84%
Group Counseling/Classroom Guidance - Career/Post-secondary	5.74%	5.22%	.24%
Group Counseling/Classroom Guidance – Academic	4.28%	4.42%	-.14%
Group Counseling/Classroom Guidance - Personal/Social	4.62%	3.83%	.79%
System Support	3.96%	3.75%	.21%
Other	1.96%	1.3%	.66%

Technology and Other Available Resources

Prior to a discussion on available resources for postsecondary planning, it is important to examine the post-graduation plans of students statewide. While surveying students was outside the scope of this project, participating school counselors were asked to indicate their perceptions of students’ post-graduation plans. Table 8 illustrates the percent of counselors statewide who indicated their perception of the likelihood that their students would participate in various postsecondary opportunities.

Table 8: Counselors Perceptions of Students’ Post-Graduation Plans, N=121

	Very Likely	Likely	Somewhat Likely	Not Likely
Attending a 2-Year College	31.4%	36.4%	28.9%	3.3%
Attending a 4-Year College	70.2%	20.7%	7.4%	1.7%
Attending a 2-Year College with Plans to Transfer to a 4-Year College	32.3%	33.9%	28.1%	5.8%
Vocational/Technical Training	24.8%	38.8%	32.2%	4.1%
Military Options	14%	18.2%	58.7%	9.1%
Entering the Workforce	18.2%	16.5%	52.9%	12.4%

For each survey item (e.g. Attending a 2-Year College, Attending a 4-Year College, etc.), participants were asked to indicate one of the four Likert scale options. As a result, each participant responded in only one way to each of the various post-graduation options provided. These data suggest that students across the state are most likely to attend some form of post-secondary education, with the greatest likelihood being a 4-year college. Given these results, the importance of post-secondary guidance interventions are of considerable concern.

Table 9 shows that, according to school counselors in both rural and urban districts, attending a 4-year college is the most common student focus. However, when comparing counselors in rural and urban districts, rural counselors are significantly more likely to believe that students in their districts are interested in the following options: attending a 2-year college (14.5 percent more likely), entering the military (18.8 percent more likely), vocational training (25.6 percent more likely), and entering the workforce directly from high school (30.6 percent more likely). Conversely, counselors in urban districts are significantly more likely to believe that their students will directly enter a 4-year college. These differences were statistically significant for all but attending a 2-year college with plans to transfer to a 4-year college (1.5 percent difference, $p=0.585$).

Table 9: Comparisons of Counselor Perceptions of Students' Post-Graduation Focus, N=121

Answer	Rural % Very Likely and Likely	Urban % Very Likely and Likely	Rural-Urban % Difference	Mean Significance Two-Tailed
Attending a 2-Year College	75.4%	60.9%	14.5%	.047*
Attending a 4-Year College	87.7%	93.8%	-6.1%	.002**
Attending a 2-Year College with Plans to Transfer to a 4- Year College	66.7%	65.6%	1.1%	.585
Vocational/Technical	77.2%	51.6%	25.6%	.001**
Military Options	42.2%	23.4%	18.8%	.010*
Entering the Workforce	50.9%	20.3%	30.6%	.001**

*statistically significant at $p<.05$

**statistically significant at $p<.01$

Note that the sum of the values in Table 9 does not equal 100 percent since survey participants were asked to evaluate the likelihood that their students would focus on each of the listed options. This survey question was not designed to force respondents to divide their responses equally to 100 percent, nor was it an effort to predict students' postsecondary intentions. Instead, the purpose of the question was to determine counselors' perceptions of how likely it was that the students with whom they work would consider different options. A focus or consideration of an option is not necessarily a predictor for students' behavior. Additionally, participants were asked to consider each option separately (i.e. 2-year college attendance, 4-year college attendance, etc.) and consider the likelihood that students with whom they work would consider each. As each respondent likely has hundreds of students in their caseload, counselors may respond to multiple options in this question, as respondents would be considering the aggregate interests of the students with whom they work.

Participants were also asked to identify the various factors that they felt influenced how post-secondary guidance interventions are developed. Here, the term *interventions* refers to any delivery of counseling services to students, including those that are developed in the moment based on student needs, those that are part of a more formal guidance curriculum, or other services provided to students as they plan for life after graduation (See Table 10).

Table 2: Influences on the Development of Post-Secondary Guidance Services, N=115

Question	Extremely Important
Student Interests	67.8%
Available Resources to You as a School Counselor	42.6%
Careers in Demand	33.9%
Your Training in Career Development Processes	25.2%
Parental Influence	23.5%
Local Economic Forces	21.7%

Table 10 indicates that, on aggregate, the most important factor in the development of these interventions is student interests. It is also noteworthy that resources available to the school counselor are the second most important reason provided by respondents to the survey.

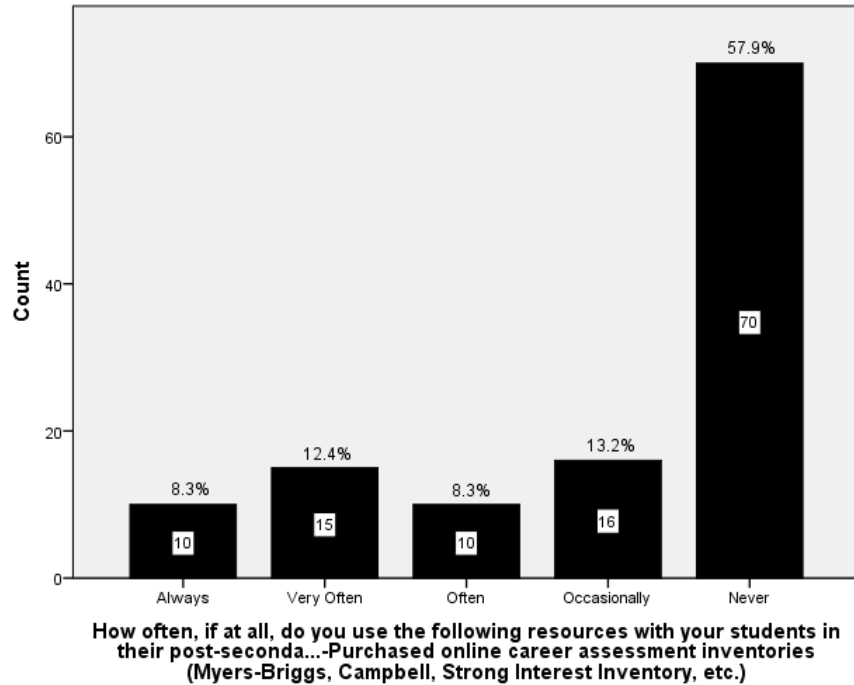
As illustrated in Table 11, student need and available careers ranked highly for both rural and urban school counselors. Also of importance for both groups were the resources available to the school counselors in implementing their counseling interventions. However, as discussed previously, urban counselors have significantly more resources at their disposal than do rural counselors. The fact that rural and urban counselors highly rank the availability of resources places rural counselors at a disadvantage to their urban counterparts because urban counselors, on average, have significantly more resources available to them.

Table 11: Comparisons of Influences on School Counselor Interventions, (R= Rural, U= Urban), N=115

Influence	Extremely Important R% vs. U%	Very Important R% vs. U%	Somewhat Important R% vs. U%	Not at all important R% vs. U%
Student Interests	62.3 vs. 72.6	37.7 vs. 25.8	0 vs. 1.6	0 vs. 0
Careers in Demand	30.2 vs. 37.1	64.2 vs. 58.1	5.7 vs. 4.8	0 vs. 0
Available Resources to You as School Counselor	43.4 vs. 41.9	34 vs. 43.5	18.9 vs. 12.9	3.8 vs. 1.6
Local Economic Forces	26.4 vs. 17.7	52.8 vs. 56.5	20.8 vs. 24.2	0 vs. 1.6
Parental Influence	26.4 vs. 21	47.2 vs. 43.5	26.4 vs. 35.5	0 vs. 0
Your Training in Career Development Processes	24.5 vs. 25.8	50.9 vs. 53.2	20.8 vs. 17.7	3.8 vs. 3.2

To examine participants' thoughts about the use of technology in postsecondary planning, respondents were asked if they used online versions of well-known career counseling inventories that counselors can purchase (See Figure 8).

Figure 8: Use of Career Guidance Tools, N=121



Respondents were also asked how often they use various purchased online career guidance resources (See Table 12).

Table 12: Participants' Use of Purchased Online Resources, N=121

	Always	Very Often	Often	Occasionally	Never
Pay for Service Online Guidance/Counseling Tools	38%	13.2%	5.8%	14%	28.9%
Pay for Service Online Career Assessment Inventories	8.3%	12.4%	8.3%	13.2%	57.9%

The survey question regarding *Pay for service online guidance/counseling tools* provided the Naviance online guidance platform as an example. Naviance is a fee-based service for which the cost is negotiated between the school or district and the distributor, Hobsons Educational Advances. Fees can vary significantly based on the number of students subscribed to the service and other factors, but typically cost a district tens of thousands of dollars.

As shown in Table 13, urban counselors are more likely to use online technology in delivering postsecondary counseling interventions. Urban counselors are more likely to use purchased online career assessments (e.g. Myers-Briggs Type Indicator, Strong Interest Inventory, Campbell Interest and Skills Survey) than their rural counterparts, and urban counselors are more likely to use purchased online guidance/counseling tools such as the Naviance college and career planning website. Respondents who indicated that they occasionally or never employ these resources were asked to identify why. Cost was the most frequent response; 20 rural counselors identified cost as the most important reason (35.1 percent), while only seven urban counselors noted cost as a concern (10.9 percent).

Table 33: Comparison of the Use of Purchased Technology, N=121

	Rural	Urban	Rural-Urban % Difference
Always or Very Often Use Purchased Online Guidance/Counseling Tools	35.1%	65.7%	-30.6%
Always or Very Often Use Purchased Online Career Assessment Inventories	15.8%	25%	-9.2%
Never Use Pay for Service Online Guidance/Counseling Tools	38.6%	20.3%	18.3%
Never Use Pay for Service Online Career Assessment Inventories	66.7%	50%	16.7%

The question on *pay for service online career assessment inventories* mentioned Myers-Briggs Type Indicator, Strong Interest Inventory, and Campbell Interest and Skills Survey as three examples. In examining the cost of these assessment tools for school counselors, the following are costs based on supplying all necessary materials to administer the survey to 250 students (i.e. the recommended individual counselor caseload from the American School Counselor Association). The Strong Interest Inventory would cost \$4,026.50 per 250 students, the Myers-Briggs would cost \$5,884.50 per 250 students, and the Campbell Interest and Skills Survey would cost \$6,319.80 per 250 students.

Of significance is that 58 percent of respondents indicated they have never purchased online career assessments, while subsequent responses (Table 17) indicate that a vast majority use various career assessments (i.e. interest, skill, values, and personality assessments). The qualitative responses that

followed this survey item indicated that resources (e.g. money and time) play a significant role in not using these formal assessments that are normed, have been tested for reliability and validity, and are expensive; instead counselors are likely using informal, free tools that may not be of the same quality. Many free online assessments have not undergone the rigorous reliability and validity testing that is true of purchased instruments (Zunker, 2016).

In a separate analysis, indicated budget amounts allocated to guidance counselors were separated into two categories from the 5-point Likert scale. *Low Budget* included responses from 1-3 (\$0-\$500) and *High Budget* were responses from 4-6 (\$501-\$5,000+). These categories were then correlated with technology use. Results showed that the likelihood of using purchased online counseling tools (e.g. Naviance) was significantly different for those that fell into the *Low Budget* category and those that were in the *High Budget* category. Also of note are the percentages of rural and urban districts that fall into the categories of *Low Budget* and *High Budget* (See Table 14).

Table 14: Low versus High Budget and Technology Use, N=121

Budget	Rural	Urban	Likelihood of using purchased online counseling tools (e.g. Naviance, Discover)
Low: \$0-\$500	58%	42%	Mean=3.58 (Occasionally)
High: \$501-5,000	41%	59%	Mean=2.41 (Always/Very Often)

Participants were asked to indicate their use of various free online resources (See Table 15). It should be noted that O*Net and the Occupational Outlook Handbook are online resources provided by the U.S. Bureau of Labor Statistics and the Department of Labor. These sites, as well as other resources from the Department of Labor, provide data on occupational trends, median salaries, educational requirements for various occupations and use of technology in careers.

Table 45: Participants' Use of Free Online Resources, N=121

	Always	Very Often	Often	Occasionally	Never
O*Net, Occupational Outlook Handbook, and other Bureau of Labor Statistics Websites	10.8%	16.7%	25.8%	24.2%	22.5%
Free Online Career Assessment Tools	17.4%	30.6%	15.7%	19.0%	17.4%
Free Online Guidance/Counseling Tools	16.5%	32.2%	17.4%	19.8%	14.0%
Computers in the Guidance Office	23.3%	32.5%	13.3%	15.0%	15.8%

The results show that 30.8 percent of respondents occasionally or never use computers with their students in the guidance office. Given the proliferation of online guidance resources and the increasingly universal online presence of colleges, vocational schools, and the military, the lack of technology use is incongruent. The large numbers of respondents who also indicated they seldom, if ever, use the many free online guidance resources that are available are equally important. This may be a function of the relative years of experience of many of the counselors who completed the survey, but qualitative responses to the question of why these resources are not used indicated that time and cost of the technology are inhibiting factors.

When comparing rural counselors with their urban peers, urban counselors are more likely to have computers for student use in their offices (See Table 16). Without access to technology, it is difficult for students to use online assessments or access the many post-secondary planning resources that are available online with the guidance of their school counselors (e.g. college websites, College Board and ACT enrollment and preparation, military recruitment sites, etc.). Given the previously discussed results on per pupil spending, it is not surprising that counselors in rural districts may not have the same access as their urban counterparts to costly technology.

Table 16: Student’s Computer Use in Guidance Offices, N=120

	Rural	Urban	Rural-Urban % Difference
Always Use Computers in the Guidance Office with Students	17.5%	28.6%	-11.1%
Very Often Use Computers in the Guidance Office with Students	26.3%	38.1%	-11.8%
Often Use Computers in the Guidance Office with Students	17.5%	9.5%	8%
Occasionally Use Computers in the Guidance Office with Students	15.8%	14.3%	1.5%
Never Use Computers in the Guidance Office with Students	22.8%	9.5%	13.3%

Counseling Interventions

One of the most significant elements of the survey instrument asked respondents to identify specific interventions they use in the delivery of post-secondary guidance services. The elements of this survey item were delineated in to four categories: Post-Secondary Preparation (six items), Assessments (seven items), High School to College Interventions (five items), and High School to Work (eight items). These results are in Table 17.

Table 57: School Counselor Post-Secondary Counseling Interventions, N=121

Intervention	Using	Not Using	% Using
<u>Post-Secondary Prep</u>			
Developing awareness of career development processes	118	3	97.5%
Collaboration with classroom teachers	111	10	91.7%
Goal setting exercises	109	12	90.0%
Parent programs	102	19	84.3%
Classroom course on career development	83	38	68.6%
Diversity education	61	60	50.4%
<u>Assessments</u>			
Career interest assessments	112	9	92.3%
Career aptitude assessments	101	20	83.5%
Career values assessments	99	22	81.2%
Personality assessments	88	33	72.3%
Learning style assessments	85	36	70.2%
Armed Services Vocational Aptitude Battery (ASVAB)	70	51	57.9%
Multiple intelligences assessments	48	73	39.7%
<u>High School to College</u>			
College search processes	96	25	79.3%
College recruiter visits	93	28	76.9%
Financial aid planning	88	33	72.7%
College fairs	85	36	70.2%
College essay writing	72	49	59.5%
<u>High School to Work</u>			
Job shadowing/interviewing programs	92	29	76.0%
Military recruiter visits	89	32	73.6%
Resume writing	86	35	71.1%
Verbal communication skill development	83	38	68.6%
Interviewing skills	81	40	66.9%
Career fairs	80	41	66.1%
Written communication skill development	74	57	61.2%
Presentation skills	62	59	51.2%

The aggregate data suggest that although professional school counselors are actively engaged in many significant post-secondary counseling interventions, more than 20 percent of those counselors are not exposing their students to any sort of college search process and more than 25 percent of all counselors are not engaged in financial aid planning with their students. While both rural and urban schools seem to be spending a significant amount of their time on career planning and assessment interventions, rural school counselors are less likely to be implementing the post-secondary interventions.

As shown in Table 18, rural counselors are less likely than their urban peers to engage in 22 of the 25 interventions included on the survey. There are also differences between the specific interventions that rural and urban school counselors are implementing. Rural school counselors are less likely than urban school counselors to conduct college fairs, career fairs, and parent programs. They are also less likely than urban school counselors to have military and college recruiters visit their schools. Results also indicate that urban school counselors are 13 percent more likely to be helping students with college essay writing. Rural school counselors are also less likely to be implementing interventions that focus on resume writing, verbal communication skill development, interviewing skills, and presentation skills. These are interventions that tend to require individualized time that rural school counselors likely do not have, especially if they are expected to be spending their time on non-counseling related duties or responsive services as described previously.

Table 18: Comparisons of Career Counseling Interventions, N=121

Intervention	Rural % Using	Urban % Using	Rural-Urban % Difference
<u>Post-Secondary Prep</u>			
Developing awareness of career development processes	94.7%	100%	-5.3%
Collaboration with classroom teachers	89.5%	93.8%	-4.3%
Goal setting exercises	89.5%	90.6%	-1.1%
Parent programs	75.4%	92.2%	-16.8%
Classroom course on career development	71.9%	65.6%	6.3%
Diversity education	50.9%	50%	.9%
<u>Assessments</u>			
Career interest assessments	91.2%	93.8%	-2.6%
Career aptitude assessments	82.5%	84.4%	-1.9%
Career values assessments	79%	84.4%	-5.4%
Personality assessments	63.2%	81.3%	-18.1%
Learning style assessments	64.9%	75%	-10.1%
Armed Services Vocational Aptitude Battery (ASVAB)	63.2%	53.1%	10.1%
Multiple intelligences assessments	36.8%	42.2%	-5.4%
<u>High School to College</u>			
College search processes	77.2%	81.3%	-4.1%
College recruiter visits	73.7%	79.7%	-6%
Financial aid planning	68.4%	76.6%	-8.2%
College fairs	66.7%	73.4%	-6.7%
College essay writing	52.6%	65.6%	-13%
<u>High School to Work</u>			
Job shadowing/interviewing programs	75.4%	76.6%	-1.2%
Military recruiter visits	70.2%	76.6%	-6.4%
Resume writing	61.4%	79.7%	-18.3%
Verbal communication skill development	63.2%	73.4%	-10.2%
Interviewing skills	56.1%	76.6%	-20.5%
Career fairs	56.1%	75%	-18.9%
Written communication skill development	57.9%	64.1%	-6.2%
Presentation skills	45.6%	56.3%	-10.7%

Guidance Curricula

Before beginning the discussion of the data, it may prove useful to describe school counseling guidance curricula in greater detail. A comprehensive school counseling curriculum is typically

developed as a series of planned interventions. A comprehensive curriculum is not something that is typically purchased, although elements of the curriculum (e.g. individual classroom guidance lessons) might be. Instead, a curriculum is an intentional, planned series of counseling interventions that are implemented individually, in small groups, in classrooms, or as school-wide events. These counseling interventions are often developed to meet the mindset and behavior standards developed by the American School Counselor Association; however, one does not need to be a member of the organization to access these mindsets and behavior standards. They are available on the organization's website to any school counselor who wishes to access them.

Participants were asked several questions regarding curriculum development and implementation. When asked if they use a formal guidance curriculum, 64.3 percent of participants said yes.

Additionally, participants who said they use a formal curriculum were asked if that curriculum addressed the American School Counselor Association Mindsets and Behavioral Standards: 96 percent of those respondents said yes.

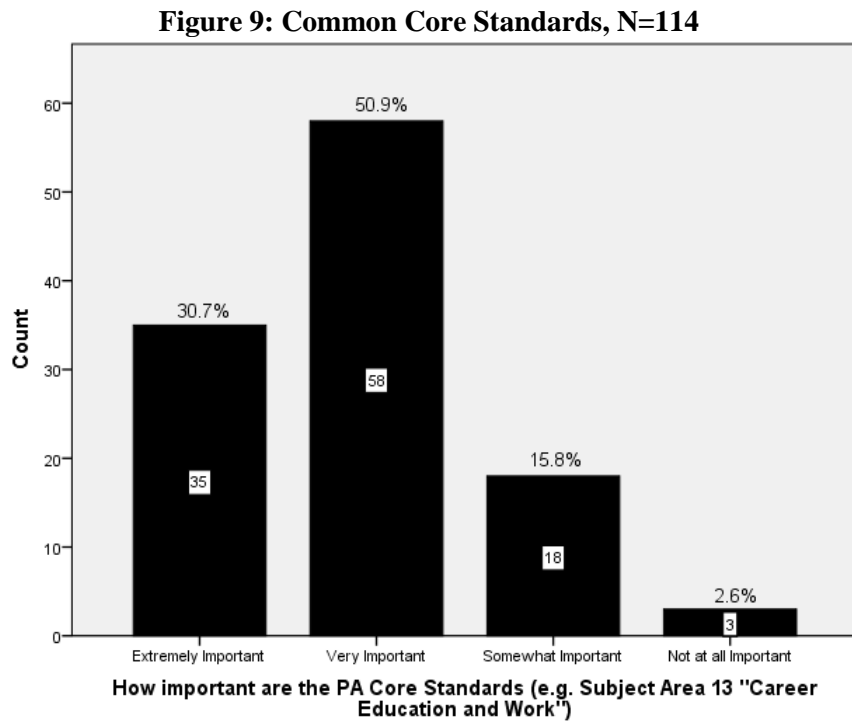
Participants were also asked to indicate if their school counseling programs meet the national standards as a Recognized ASCA Model Program (RAMP). RAMP is the recognition provided to comprehensive school counseling programs that meet the minimum standards of the American School Counseling Association's *National Model*, which is the model proposed by the national body recognizing professional school counselors nationwide. Meeting RAMP standards demonstrates that they have met the minimum standards of the *National Model*, which is a type of national accreditation. Twenty-six percent of respondents indicated that their program is recognized as a RAMP program.

Finally, participants were asked if their school counseling programs meet the requirements of a Comprehensive School Counseling Curriculum under Chapter 339 of the Pennsylvania School Code: 82.5 percent of respondents answered yes.

These data, when considered collectively, yield noteworthy results. The large percentage of respondents who indicated they are meeting the requirements of Chapter 339 (82.5 percent) is

noteworthy, as are the data on the use of the American School Counselor Association national standards (96 percent). However, given that Chapter 339 has been a legal requirement since 2008, the fact that approximately one out of every five secondary school counseling programs is not meeting those requirements is striking. Also, that 82.5 percent indicated compliance with Chapter 339, while only 43 percent indicated the use of a formal guidance curriculum is incongruent. Chapter 339 requires the implementation of a formal guidance curriculum, which would, by default, suggest that every school using a formal guidance curriculum is compliant with the statute.

Additionally, participants were asked to identify the importance of the Pennsylvania Common Core standards in relation to postsecondary career planning; the aggregate data are provided in Figure 9.



More than 81 percent of school counselors across the state place high value on the common core standards related to career planning. These data are supported by the interventions discussed in Tables 17 and 18. Many of the interventions that are used most often, such as analysis of skills and interests related

to the world of work, are also identified in the Common Core Standards (e.g. Standard 13.1.11.A: Relate careers to individual interests, abilities, and aptitudes).

Generally speaking, there was very little difference found in the use of guidance curricula when comparing the survey responses of rural and urban professional school counselors. As illustrated in Table 19, when asked if participants use a defined guidance curriculum, 62.3 percent of rural counselors indicated they do compared to 66.1 percent of urban counselors. A similar result was found when asked if school counselors incorporate the American School Counselor Association’s Mindsets and Standards in their curricula; 93.9 percent of rural counselors and 97.5 percent of urban counselors endorsed incorporation. When asked if their curricula meet the state’s requirements under Chapter 339 of the Pennsylvania Code, 83 percent of rural counselors and 82 percent of urban counselors indicated yes. Finally, when asked if their school’s guidance curriculum meets the standards as a Recognized ASCA Model Program (RAMP), 21.2 percent of rural respondents and 30 percent of urban respondents said they meet these requirements.

Table 19: Rural and Urban School Counselors' Use of Curricula

	% Rural	% Urban
Implementation of Formal Guidance Curricula	62.3% (N=53)	66.1% (N=62)
Incorporation of ASCA Mindsets and Standards	93.9% (N=33)	97.5% (N=40)
Curricula meets Chapter 339 Requirements	83.0% (N=53)	82.0% (N=61)
Recognized ASCA Model Program (RAMP)	21.2% (N=33)	30.0% (N=40)

Upon closer examination, these data may be flawed. Of the 13 Pennsylvania schools that are identified by the American School Counselors Association as having RAMP programs (ASCA, 2015), all are located in urban districts, suggesting that the rural respondents who indicated RAMP certification are not possible, and the urban respondents are highly unlikely given the sample size of this survey. Also the

use of a formal guidance curriculum meets the requirements under Chapter 339, which means that these results should be close to identical.

Two hypotheses have been developed for why these results may have occurred. First, any question that ask respondents to indicate compliance with legal requirements or industry standards may result in inflated positive responses as a result of social desirability bias. Additionally, issues such as Chapter 339 compliance and RAMP certification are relatively new developments in the field of professional school counseling. Given the degree of professional experience by the majority of the respondents (i.e. 56 percent have 11 or more years of experience as a professional school counselor), many of the survey respondents may not be aware of these relatively new developments and may have answered the survey without thorough understanding of the details of these questions.

In evaluating the development of school counseling curricula, respondents were asked to identify their use of formal, quantitative needs assessments in curriculum development.

Only 37 percent of respondents indicated the use of a formal, quantitative needs assessment, despite the highly recommended use of such assessments (ASCA, 2012). Ninety-six percent of respondents who indicated using needs assessments identified them as useful, however the majority of respondents who do not implement needs assessments identified time as the greatest obstacle to doing so. Respondents identified several significant impediments to using these assessments, specifically: the time needed to administer a needs assessment, the time to evaluate the collected data, and the time it takes to get students to complete surveys (See Table 20).

Table 20: Obstacles to Using Needs Assessments, N=121

Barrier	Percent
Lack of Time to Implement These Assessments	72.7%
Lack of Time to Evaluate the Data that Are Collected from These Assessments	54.5%
Difficulty in Getting Students to Complete Such Assessments	29.8%
Belief that the Data Collected Would Not Be Useful	4.1%
None of the Above; I Don't Find Barriers to Assessing Students' Post-Secondary Needs	12.4%

STEM Education and Postsecondary Planning

When asked to identify the number and difficulty of STEM courses offered at their schools, respondents' indicated the greatest number of courses offered at increasing levels of difficulty and complexity, beginning at the standard level, followed by honors, and Advanced Placement (See Table 21).

Table 6: Number of STEM Courses, N=121

Difficulty of STEM Course	Average Number of Courses Offered Per School	Percentage of Schools Offering STEM Courses
Standard Level (N = 112)	18.75	94.0%
Honors (N = 113)	8.0	80.8%
Advanced Placement (N = 104)	4.5	63.65%

Urban respondents report more STEM courses available in their schools overall than rural respondents. Additionally, more urban schools are offering STEM courses than are rural schools, especially at the honors and Advanced Placement levels. As the complexity and difficulty of courses increases, the disparity between rural and urban course offerings is magnified. Statistically significant differences were found between the number of honors courses ($p < .001$) and Advanced Placement courses ($p < .001$) in urban districts compared to rural districts (See Table 22).

Table 22: Comparison of STEM Course Offerings, N=121

STEM Course Level	Rural % Not Offered	Urban % Not Offered	Rural Mean Number of Courses	Urban Mean Number of Courses	Rural-Urban Mean Difference	Significance
Standard Level	7.1%	4.8%	16.45	21.35	-4.9	.163
Honors Level	27.3%	11.1%	5.36	10.83	-5.47	.000*
Advanced Placement	42.6%	30.1%	2.63	6.30	-3.67	.000*

*statistically significant at $p < .001$

Participants were also asked to assess how important STEM-related education is to various stakeholders within their school and district (See Table 23).

Table 23: Counselors’ Perceptions of the Importance of STEM Among Stakeholders, N=121

STEM Stakeholder	Extremely Important	Very Important	Somewhat Important	Not at all important	I don’t know
School Administrators	36.4%	42.1%	16.5%	.8%	4.1%
Teachers	23.1%	50.4%	22.3%	.8%	3.3%
Counselors	24%	47.9%	25.6%	0%	2.5%
Local Industry	28.9%	35.5%	22.3%	1.7%	11.6%
Students	21.5%	32.2%	37.2%	5%	4.1%
Families	24.8%	27.3%	34.7%	5.8%	7.4%
Taxpayers/Community	16.5%	28.9%	33.9%	5%	15.7%

When the percentages for “Extremely Important” and “Very Important” are pooled, the group that school counselors believe most values STEM education are school administrators (78.5 percent) followed by teachers (73.5 percent), school counselors (71.9 percent), local industry (64.4 percent), students (53.7 percent), families (52.1 percent), and taxpayers (45.4 percent). These data suggest that in the opinion of school counselors, school officials and local industry value STEM education more than students, their families, or local communities (See Table 24).

Table 24: Comparisons of STEM Importance to Stakeholders, (R= Rural, U=Urban), N=121

STEM Stakeholder	Extremely or Very Important Rural	Extremely or Very Important Urban	Somewhat or Not at all Important Rural	Somewhat or Not at all Important Urban	I Don’t Know R vs. U
School Administrators	80.7%	76.5%	15.8%	18.8%	3.5% vs. 4.7%
Teachers	75.5%	71.9%	21.1%	25.0%	3.5% vs. 3.1%
Counselors	75.4%	68.8%	22.8%	28.1%	1.8% vs. 3.1%
Local Industry	59.7%	68.7%	35.1%	14.1%	5.3% vs. 17.2%
Students	49.1%	57.8%	47.4%	37.6%	3.5% vs. 4.7%
Families	42.1%	60.9%	50.9%	31.3%	7% vs. 7.8%
Taxpayers/Community	35.1%	54.7%	52.6%	26.5%	12.3% vs. 18.8%

Several findings are worthy of discussion. In both rural and urban districts, school counselors ranked school staff - administrators, teachers, and counselors, respectively – as viewing STEM of the highest importance. Additionally, more urban school counselors believe families place more importance on STEM education than rural counselors. Finally, in examining the number of counselors who indicated that they are unaware of the importance a particular stakeholder would place on STEM education, rural school counselors are often more likely to know the importance of STEM education to these constituents (local industry and taxpayer/community) than urban counselors.

Finally, counselors were asked to indicate interventions they use to promote STEM education among their students (See Table 25). It should be noted that respondents were asked to indicate any and all items that were applicable, which is why the sum of the percentages is greater than 100 percent.

Table 25: STEM Interventions, N=121

Answer	%
Discussing STEM Education and Career Fields with Students	93%
Collaborating with STEM-related Secondary Schools (e.g. Vocational-Technical Schools, etc.)	67%
Exposing Students to STEM-related Employers	52%
Collaborating with STEM-related Post-secondary Institutions	44%
Attending Professional Development Opportunities Regarding STEM Education	38%
Collaborating with Local STEM-related Industries	34%
None of the Above	10%

Note: Total does not equal 100% due to multiple responses.

The data show that the majority of participants discuss STEM education with their students; however, 10 percent of school counselors do not promote or encourage STEM education for their students in any way. While the survey did not ask for specifics as to why school counselors may not actively encourage participation in STEM education, the lack of significance the respondents assigned to these courses by students and families may be one reason to account for this result.

Comparisons of rural and urban counselors, related to the use of STEM interventions, are included in Table 26. Urban counselors reported engaging in STEM-related counseling more often than rural counselors, except in one area, *Collaborating with local STEM-related industries*. The greatest

differences between urban and rural counselors were found in two items related to working with students: discussing STEM professions and exposing their students to STEM-related career options.

Another finding was the number of counselors who indicated they do not engage in any STEM-related career counseling interventions. Only 6 percent of urban counselors indicated not engaging in STEM career counseling, while 14 percent of rural counselors were not actively involved in counseling students on STEM related careers. It should be noted that the percentages in Table 26 do not equal 100 percent because respondents were asked to check all applicable answers.

Table 7: Rural and Urban STEM-Related Interventions, N=121

	Rural Counselors	Urban Counselors	Difference
Discussing STEM Education and Career Fields with Students	74%	89%	15%
Exposing Students to STEM-related Employers	37%	55%	18%
Attending Professional Development Opportunities Regarding STEM Education	28%	38%	10%
Collaborating with STEM-related Post-secondary Institutions	39%	41%	2%
Collaborating with Local STEM-related Industries	33%	28%	-5%
Collaborating with STEM-related Secondary Schools (e.g. Vocational-Technical Schools, etc.)	58%	61%	3%
None of the Above	14%	6%	8%

Note: Total does not equal 100% due to multiple responses.

Community Socioeconomic Status and Educational Attainment

Another element of this study examined the relationships between per pupil spending on guidance services, the socioeconomic status (SES) of the district, and the levels of educational attainment in the community. Socioeconomic status was measured by the percentage of students who received Free or Reduced Price Lunch in a particular school district.

In both rural and urban districts, as the percentage of students who receive Free or Reduced Price Lunch increases, per pupil spending on guidance services decreases. What these data indicate is that districts that have lower spending on guidance services are significantly more likely to have larger

percentages of students receiving Free or Reduced Price Lunch. Therefore, as per pupil spending on guidance services increases the percentage of students receiving Free or Reduced Price Lunch decreases.

To examine educational attainment, the data were divided into three categories: (1) No High School Diploma, (2) High School Diploma/No College Degree, and (3) Completed College Degree. The data indicate that as the percentage for the groups who have not earned a college degree (Categories 1 and 2) increases, so do the percentage of students receiving Free or Reduced Price Lunch. However, as the percentage of individuals with college degrees increases (Category 3), the percentages of students receiving Free or Reduced Price Lunch decreases. In addition, as the percentage of the population without a college degree (Categories 1 and 2) increases, per pupil spending on guidance services decreases; however, when the percentage of the population with college degrees (Category 3) increases, per pupil spending on guidance increases, as well. In short, as educational attainment increases, the percentages of children requiring Free or Reduced Price Lunch decreases and per pupil spending on guidance services increases.

When comparing the variables across rural and urban districts independently, there are minimal changes in the results. For example, a negative correlation was found in both rural and urban districts between per pupil spending on guidance services and the percentage of students receiving Free or Reduced Price Lunch. That is, as the percentage of students receiving Free or Reduced Price Lunch increases, per pupil spending on guidance services decreases. However, this correlation was only found to be statistically significant in urban districts. When the data are examined for urban districts, the spending average is not only higher, but it also spans a larger deviation within urban districts. Also, when only urban districts are analyzed, the significance in the correlation between Per Pupil Spending and Free or Reduced Price Lunch increases.

When examining the correlation between educational attainment and per pupil spending in rural and urban districts separately, similar results were found. When comparing per pupil spending with the percentage of adults in a community without a high school diploma (Category 1), the data indicate that as

the percentage of individuals without a high school diploma increases, per pupil spending on guidance decreases. The result in urban districts is statistically significant at $p < .001$, indicating a strong negative correlation between the lack of a high school diploma and per pupil spending.

As the percentage of individuals in the community with a high school diploma/no college (Category 2) increased, per pupil spending decreased. The results for both rural and urban districts are statistically significant at $p < .01$ and $p < .001$, respectively.

Finally, as the percentage of individuals in the community with a college degree (Category 3) increased, so did per pupil spending on guidance services in both rural and urban districts. In rural districts, this result was statistically significant at $p < .01$ and for urban districts at $p < .001$.

To better understand the data, the researchers examined districts with the highest per pupil spending on guidance services in relation to the percentage of individuals in that community who have completed a college degree. The results indicate that every district where spending is at least two standard deviations above the mean in per pupil spending on guidance services also has high levels of educational attainment among its population. At least half of the population in each of these districts has obtained a college degree. Districts where the population has a high level of college degree attainment also have a higher level of per pupil spending on guidance services and a lower level of children requiring Free or Reduced Price Lunch.

Conclusions

Per Pupil Spending

The significant differences in per pupil spending between rural and urban districts is a major finding of this study. For each year examined, there were significant differences in spending between rural and urban districts. Counselors in rural districts received significantly less funding per student in budgetary allocations. The average amount of guidance budgetary expenditures statewide ranged from 1.79 percent to 1.90 percent of total district expenditures (1.81 percent to 1.91 percent in rural districts and 1.78 to 1.84 percent in urban districts), which is of considerable interest given the importance of the professional school counselors services, as well as the significance of providing post-secondary planning options for students. This relative lack of financial commitment to guidance services has the potential to result in negative consequences for students across Pennsylvania, as evidenced by the survey results.

For example, findings indicate that these differences in spending equate to fewer counselors, higher ratios, fewer services, and less individual time with students. In short, students in rural districts receive significantly less funding for guidance services and receive fewer services than their urban counterparts. Issues of equity are important, especially when considering the importance of guiding our commonwealth's children to the most appropriate careers after graduation.

Staffing

The data indicate that the majority of individuals who serve as professional school counselors across the commonwealth have been employed for at least a decade. While the data indicate a significant amount of experience, the data also suggest that some school counselors may be removed from noteworthy changes in the field, such as those detailed in the revised editions of the American School Counselor Association's publication, which was first published in 2003. School counselors are required under Act 48 of 1999 to participate in 180 hours of professional development every 5 years. However, a moratorium was placed on this requirement from 2011-2013, when the most recent edition of the *ASCA National Model* was released, and there are very few specific guidelines on how school counselors can

earn hours toward the requirements of Act 48. While some counselors may take the opportunity to learn more about emerging trends in the field, others may meet these requirements through participation in school and district meetings or taking coursework outside the field of school counseling.

When examining the differences between rural and urban districts, the data indicate that there are more inexperienced counselors in rural districts than in urban schools. Additionally, the data indicate there are fewer counselors in rural schools, and that the caseloads of rural counselors are higher than those in urban districts. As a result, it may be difficult for rural school counselors to implement the same level of service as their urban counterparts. The data throughout this research confirm that having fewer counselors and higher caseloads result in less direct contact with students. Counselors in rural schools are spending less time on career guidance and more time on administrative tasks, possibly as a result of having fewer colleagues to whom these responsibilities can be delegated and with whom to collaborate.

Expectations and Resources

Counselors in urban districts are significantly more likely to believe that their students are considering attending a 4-year college directly after high school graduation. While counselors in rural districts believe their students are also likely to attend 4-year colleges, counselors in these districts are also significantly more likely to believe that their students plan to attend 2-year colleges, participate in vocational training, join the military, and enter the workforce directly after graduation. Both rural and urban counselors consider student interests, resources, and available careers as important factors in the interventions they plan.

Counselors in urban districts are significantly more likely to use purchased, online career counseling instruments. When asked why rural counselors do not use them, they overwhelmingly identified cost as a major factor. The cost of these resources can range from a few thousand dollars per counselor caseload, to tens of thousands of dollars for larger schools. Urban counselors are also significantly more likely to have computers in their offices that are available to students. Given the ubiquitous online presence of colleges and universities, the need to use the Internet for registration for

college-placement exams, and the need for computer access for the college application process, access to technology is critical, especially as counselors guide students through these processes.

Counselors were asked to identify specific career counseling interventions that they use with their students. For 22 out of these 25, urban counselors indicated greater use of the career counseling interventions than rural counselors. The only two interventions that rural counselors indicated greater use of by more than 1 percent included the use of the Armed Services Vocational Aptitude Battery (ASVAB) and classroom courses on career development. The differences in the use of career assessments were stark in these findings, as were the differences in *High School to Work* interventions, where differences in the use of these interventions was as great as 20 percent. Given the previous finding that rural counselors are more likely to believe that their students would enter the military after high school, use of the no-cost ASVAB instrument was understandable. However given that rural counselors were more likely to expect their students to enter the workforce directly after high school, the finding that rural counselors were much less likely to engage students in high school to work counseling interventions was less explicable.

There were 10 interventions used more frequently in urban districts than in rural districts. Most of these fell into the *High School to Work* counseling intervention category, such as resume writing, interviewing skills, presentation skills, and communication skill development. These interventions require more time and are more effective when performed individually. In addition, urban counselors reported that they hold more parent programs than their rural counterparts. The literature shows that parents in rural areas are less engaged in the post-secondary process and college preparation, and are more likely to encourage their children to stay close to home. Therefore, the finding that rural school counselors were less likely to engage parents was not surprising.

Guidance Curricula

The inconsistent data found in this section are impossible to conclusively explain given the parameters of this research. However, one hypothesis is that some counselors are unaware of the legal requirements under Chapter 339 and answered in the affirmative, despite not using a formal guidance

curriculum. Another incongruence identified in the statewide responses related to the question regarding the implementation of a comprehensive school counseling program recognized by the American School Counselor Association (RAMP). According to the American School Counselor Association, there are 13 RAMP programs in Pennsylvania, all of which are located in urban districts (ASCA, 2015). In the representative sample collected for this project, 33 rural counselors and 40 urban counselors identified their schools as having programs recognized by the American School Counselors Association.

The finding that over one third of school counselors statewide do not use a formal curriculum is noteworthy, especially because it is required under Chapters 12 and 339 of the PA Code. By law, every school counselor in Pennsylvania should be using a formal curriculum from grades PK-12. Similarly, the relatively low number of counselors incorporating the ASCA Mindsets and Standards is striking, as these are vetted student learning outcomes for a comprehensive school counseling program.

STEM Education and Career Guidance

Counselors were asked to identify their perceptions of the importance of STEM education to various stakeholders in their districts. They indicated that they believed the top three stakeholders in STEM education were school administrators, teachers, and counselors. Students ranked fifth, families ranked sixth, and taxpayers in the community ranked last. Given these data, one might assume that the importance school staff place on STEM education has not reached their various constituents. Conversely, the community may not be communicating its needs for STEM education to school officials.

Regarding STEM education, there are significantly more STEM-related classes being offered in urban districts. When examining advanced STEM classes (honors and Advanced Placement), this disparity increases dramatically. As with other interventions that require resources, STEM education requires additional laboratory materials that rural districts may not have, and advanced courses require additional financial resources (e.g. AP courses are often associated with special training for teachers, required costs for students, etc.). Given the perceived interest in postsecondary options other than 4-year

colleges in rural districts, the lack of attention to STEM might be expected given that STEM careers are often believed, incorrectly, to require at least a 4-year degree.

An associated finding involves the number of counselors who engage in counseling interventions related to STEM-education and careers. Of the six interventions examined, urban counselors were more likely than rural counselors to engage in five of the six interventions (except *Collaborating with Local STEM-Related Industries*, and that difference was only 5 percent). The largest differences were found in the items described as *Discussing STEM Education and Careers with Students* and *Exposing Students to STEM-Related Employers*. Again, given the focus on options other than 4-year colleges in rural districts, as well as the significant differences in STEM coursework, these findings are consistent. Also, these particular interventions require time, lengthy planning, collaboration with colleagues, and resources, all of which rural school counselors are less likely to have as compared to urban school counselors. The other unexpected finding was that a number of rural counselors are not engaging in any STEM-related career counseling with their students (14 percent in rural districts to 6 percent in urban schools).

In both rural and urban districts, school counselors rank their perception of the top three stakeholders in STEM education as school staff: administrators, teachers, and counselors, respectively. While surveying these various stakeholders regarding their investment in STEM education was beyond the scope of this study, if school counselors' perceptions are accurate, these data provide important insights; most significant is the disparity between rural and urban counselors regarding their perceptions of the importance families place on STEM education. Comparing rural and urban school counselors' perceptions, 18.8 percent more urban school counselors believed that families rank STEM education as extremely or very important. These findings are consistent with those found in the literature and may explain other findings in this study related to STEM counseling, STEM coursework, and so forth.

Socioeconomic Status, Educational Attainment, and Per Pupil Spending

When comparing the socioeconomic status of the community through per pupil spending, as students receiving Free or Reduced Price Lunch increased, per pupil spending decreased. This result is to

be expected, as communities with lower incomes tend to have less funding for public school systems. These inequities are best described by a report commissioned by the Pennsylvania Legislature in Act 114 of 2006. Entitled, *Costing Out the Resources Needed to Meet Pennsylvania's Public Education Goals* (known colloquially as the *Costing Out* study), the purpose of this study was to examine funding inequities across the commonwealth and propose measures that would create a more fair method of funding public schools in Pennsylvania (Augenblick, Palaich, and Associates, 2007).

The *Costing Out* study determined that the method used for funding Pennsylvania schools creates an inequitable system where local property taxes comprise the majority of funding for a school district in a given community, and that inequity in income and property values are directly responsible for inequities in school funding. The study found that while the poorest districts tend to have the highest tax efforts, the fact that local revenue comprises almost twice as much of a district budget as state revenue creates these inequities in school funding. Additionally, school district spending is positively associated with wealth. "Disparities in how such revenues are generated overwhelm whatever equity is provided through Pennsylvania's state aid" (Augenblick, et al., p. 36). Moreover, the study found that to create equitable funding statewide, funding should not come from local sources, but rather "funds should be collected at the state level and allocated through a formula that is sensitive to the needs and wealth of school districts" (Augenblick, et al., 2008, p. 37). These disparities in local income streams are exacerbated by the limitations placed on local communities to raise property taxes under Act 1 of 2006.

While the recommendations in the *Costing Out* study were signed in to law by then Governor Rendell, with overwhelming support in the Legislature (i.e. Act 61 of 2008 was passed by the Senate 50-0 and by the House 191-11), the resulting spending formula lasted for only a few years. Act 1 of 2011 ended the changes implemented as a result of the *Costing Out* study and returned the majority of school district funding to local property taxes, again creating the inequities described in the *Costing Out* report. In fact, a lawsuit filed against the PA Department of Education and others is currently before the Pennsylvania Supreme Court; the action challenges this method of funding schools under the

Pennsylvania Constitution's Education and Equal Protection Clauses (William Penn School District, et. al v. Pennsylvania Department of Education, n.d.).

Returning the discussion to a comparison of per pupil spending to Free or Reduced Price Lunch, when examining these results for rural versus urban districts, the correlation between per pupil spending and Free or Reduced Price Lunch was significant in urban districts but not in rural districts. This finding may be the result of the differences in the ranges of spending in urban districts as compared to rural districts. When examining the relationship between community educational attainment and per pupil spending on guidance services, on aggregate, as the educational attainment of the population of a district increased, so did per pupil spending on guidance services. Educational attainment is often correlated with household income (Kim and Sherraden, 2011; Sang Min Lee, Daniels, Puig, Newgent, and Nam, 2008). It would follow that greater household incomes create a larger tax base for the district, which has the potential to fund a more robust budget for the school district. When examining the three groups related to educational attainment, the research found that as the percentage of residents without a high school diploma increased, per pupil spending decreased. In urban districts this correlation was statistically significant; in rural districts it was not. As the percentage of individuals with a high school diploma but no college degree increased, per pupil spending decreased. For this group, both urban and rural districts saw a significant correlation. Finally, as the number of individuals in the community with a college degree increased, so did per pupil spending, significantly in both rural and urban districts.

These data suggest opportunity gaps for students in rural districts. More importantly, these opportunity gaps often lead to gaps in achievement, and these detriments are continuously perpetuating. The data collected in this study have led to an important discovery: the disadvantages children in rural districts face regarding post-secondary career planning are part of a cyclical process that propagates itself.

When schools have financial resources, these resources are then made available to the various service providers within the system: teachers, counselors, nurses, psychologists, and so forth. When considering resources for professional school counselors, included are the resources discussed throughout

this report: financial assets, technology, additional counselors, lower counselor caseloads, additional time and individualized attention for students, improved curricula, and professional development and training. When counselors have time, colleagues with whom to collaborate, lower caseloads, larger budgets, and technology, they are able to commit more time to understanding the needs of their students and other constituencies, including the post-graduation needs of their students and the desires of their families. As this awareness increases, students receive greater access to guidance services, and are exposed to a wider range of career opportunities (e.g. STEM-related careers, 4-year colleges, etc.) and receive better counseling to help match students' interests, values, and skills with appropriate career options.

As students make better post-graduation choices regarding college and career planning, it can be assumed they will make better decisions about their future careers, which include choosing careers that are in higher demand and that require more specialized education, be that through college education, vocational training, military experience, or other options. As students choose careers that require greater degrees of education and specialization, it is likely they will earn higher incomes and have greater job security. With greater income and job security come an increase in the socioeconomic status of their communities, which leads to increased tax revenues, larger school budgets, more resources, and the cycle continues.

Policy Recommendations

Developing Additional Resource Streams for Guidance Services in Rural Districts

Professional school counselors in rural districts are at a significant disadvantage related to the accessibility of resources used to provide services to students. Guidance service funding in rural districts is significantly less than in urban schools, technology is lacking, and interventions occur less frequently. There are fewer counselors in rural schools and the caseloads of these counselors are higher. In short, rural school counselors have less with which to work, and their students are disadvantaged as a result. In examining policy recommendations to increase the resources available to professional school counselors

in rural locales, efforts were made to recommend both traditional and innovative opportunities to improve resource availability.

Increased Funding from the Pennsylvania General Assembly for Rural Guidance Services

Pennsylvania ranks 45th in the country in the allocation of state funding for public K-12 education (U.S. Census Bureau, 2015). During a period of economic challenge across the commonwealth, funding increases from the state may not seem feasible. However, during the early part of this decade, public funding for education was reduced several times; if a small portion of that currency was recovered in the form of grants and directed to guidance services for rural districts, significant improvements could be made. Funding could be provided to hire additional counselors, which would reduce caseloads. Technology could be improved, fee-based resources such as the online Naviance college and career tracking system could be purchased, and counselors could better afford to purchase the career planning assessments that are currently used more often in urban districts.

Securing Grant Funding for Rural Guidance Services

Resources could be dedicated to counselors and school administrators in rural areas to help them to secure national grants, as well as to obtain funding from foundations and private industry. It is a challenging cycle; rural school counselors would need more time to research and secure grant funding so that they could find additional financial resources that would assist them in having more time. As a result, it may be difficult for counselors to pursue grant funding on their own. However, the Pennsylvania Department of Education could assist in developing cooperative agreements between rural school districts and State System and state-related universities. Research administrators, faculty, and students from these universities could work cooperatively with rural school counselors in researching grant opportunities, grant writing processes, and securing funding from these external sources. Universities could also partner with the Pennsylvania School Counselors Association, the statewide division of the American School Counselor Association, to assist rural counselors with grant processes.

Community Resources

Local businesses and industry are often invested in the education of children in the community. As rural areas of the commonwealth experience growth in the need for highly skilled and trained workers, especially in the area of natural gas development, there is a vested interest on the part of these industries to ensure they have workers with the required 21st century skills. School counselors could work with the previously mentioned constituents to approach local industry to seek support for resources to augment local and state funding for guidance services.

Local Universities and Counselors in Training

The Pennsylvania Department of Education requires school counseling students to complete 420 hours of fieldwork prior to earning certification as a PK-12 school counselor; for those universities with national accreditation, the number of fieldwork hours increases to 700. These practicum and internship students represent a significant and largely untapped resource that could assist rural school counselors in not only implementing guidance services but also in developing curricula, acting as advocates, and providing administrative support.

Not every institution has as large a student population, and not every counselor-in-training will complete all field hours in rural settings. However, if the findings of this study can be disseminated to Pennsylvania's colleges and universities, as well as rural school districts, what may follow is the development of cooperative agreements where universities could contract with rural districts to ensure that some percentage of fieldwork was completed in rural settings. In return, rural schools could provide real-world, hands-on training through the provision of school counseling interventions, political advocacy, and engagement in the local community. The additional support might also help alleviate the burnout and isolation rural school counselors often report, as described in the introduction of this report. In turn, this may prevent rural school counselors from leaving their positions, which would reduce the number of inexperienced counselors in rural areas.

Overall, infusing additional resources into rural school counseling programs is likely to have a positive impact on almost every negative finding discussed in this report. Securing additional resources for rural school counselors will increase staffing, decrease caseloads, and allow counselors to focus more time and energy on post-secondary counseling. Counselors will be able to spend more time performing the roles they are intended to perform, specifically guiding students to careers that are appropriate for students' skills, values, and interests, as well as careers in demand. Additional funding will allow rural counselors the same access to technology and assessment instruments as their urban counterparts, as well as to engage in the day to day career guidance services that are clearly lacking in Pennsylvania's rural schools. Additional staffing and lower caseloads may also allow counselors to focus more on curriculum development and the incorporation of nationally accepted student standards for school counseling. Additional resources can also be used to improve the delivery of STEM-related guidance services in rural districts.

Increasing Professional School Counselors' Awareness of Student Needs and Post-Secondary Options

Available Careers and College Attendance

One of the findings of this study that is confirmed in the literature is that students, and consequently counselors, in rural areas focus less on direct 4-year college attendance than do their urban counterparts. However, college graduation often leads to greater career opportunities, higher earning potential, and access to the 21st century careers discussed previously in this report. While not every student should attend college, every student should have the opportunity and the information to make an informed decision. Training and educational opportunities should be made available to rural school counselors through in-service meetings and professional development opportunities to inform this population of the importance of college attendance, for both 2- and 4-year colleges, and its influence on both the success of their students, as well as upon their communities.

Use of Time

The research found that rural school counselors spend less time providing individual career counseling interventions to their students than their urban counterparts. While this time difference may be a function of higher caseloads and fewer staff available to provide support for the many non-counseling roles asked of professional school counselors, it may also result from a lack of advocacy and education on the part of school counselors and administrators in rural districts. The American School Counselor Association (2012) has developed recommendations for appropriate and inappropriate duties for professional school counselors (see Appendix A). Rural school counselors may not be aware of these recommendations, and if they are not, it is unlikely their administrators are either. The American School Counselor Association has also developed tools that professional school counselors can use to track how they spend their time. These tools can be used to increase efficiency, as well as advocate to administrators on how counselors can better spend their time serving students. The results of this study may help to bolster these arguments.

School Counseling Curricula

A clear need among rural school counselors is in the area of curriculum development, design, and implementation. The findings in this study clearly indicated deficiencies among rural school counselors in the area of curriculum execution, as only 62 percent of rural school counselors are using a formal guidance curriculum. Chapter 339 of Title 22 of the PA Code “mandates a comprehensive and integrated PK-12 guidance plan” be developed (22 PA §339). However, almost 40 percent of counselors in rural districts are not meeting this legal mandate. It is unlikely that this is a willful disregard of the legal mandate; rather, it is likely a function of a lack of time, a lack of understanding of the law, or both. In an effort to provide the education and training necessary in rural districts for successful curriculum development, the Pennsylvania Department of Education could work cooperatively with local universities in an effort to better prepare school counselors in rural areas to develop curricula. Faculty and student trainees in the State System, for example, could work with local districts to assist in designing

comprehensive and integrated guidance plans that would comply with Chapter 339. The same methods could be used to bring rural school counselors up-to-date on the most current American School Counselor Association's nationally accepted standards used in the development of guidance curricula.

STEM Education and Careers

Another area where rural school counselors are falling behind their urban peers is in the area of counseling students about STEM education and career opportunities. The data indicate that urban students have far more STEM course options, are receiving significantly more STEM career guidance, and their schools are placing more emphasis on STEM education. This is another area where improved training and professional development opportunities around STEM education could benefit rural school counselors. As school counselors become more aware of the value and need for students prepared for STEM careers, other stakeholders in rural communities will likely follow suit.

How to provide better training and professional development in all of the areas discussed in this section (i.e. college attendance, use of time, curriculum development, and STEM education) is a challenging question. Professional school counselors in Pennsylvania are required to participate in continuing education to maintain their professional credentials. These opportunities could come from a variety of constituencies with whom this study could be shared in an effort to increase awareness and cooperation. For example, the Pennsylvania Department of Education often provides professional development opportunities for professional school counselors and other school staff. In rural areas, these opportunities could be focused on topics where the data in this report indicate that disparities exist, such as: parent programming (16.8 percent difference), interviewing skills (20.5 percent), career fairs (18.9 percent), and resume writing (18.3 percent). Additionally, school counselors participate in ongoing training through school- and district-wide, in-service programs. These trainings are another opportunity for professional development and education around these concerns.

Professional development for school counselors is often provided by colleges and universities across the commonwealth. If the results of this study are disseminated to these constituents, higher

education institutions could develop professional development opportunities for rural school counselors, as well as counselor trainees in their own preparation programs who will represent the next generation of professional school counselors in Pennsylvania. Finally, the Pennsylvania School Counselors Association provides a host of educational and professional development opportunities for practicing school counselors. These results can be shared with this organization in an effort to develop one-day, low-cost professional development opportunities across rural areas of the Commonwealth.

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Appendix A: Appropriate School Counselor Activities (ASCA, 2012)

Appropriate Activities for School Counselors

- individual student academic program planning
- interpreting cognitive, aptitude and achievement tests
- counseling students who are tardy or absent
- counseling students who have disciplinary problems
- counseling students as to appropriate school dress
- collaborating with teachers to present guidance curriculum lessons
- analyzing grade-point averages in relationship to achievement
- interpreting student records
- providing teachers with suggestions for better management of study halls
- ensuring that student records are maintained as per state and federal regulations
- assisting the school principal with identifying and resolving student issues, needs and problems
- working with students to provide small- and large-group counseling services
- advocating for students at individual education plan meetings, student study teams and school attendance review boards
- disaggregated data analysis

Inappropriate Activities for School Counselors

- registration and scheduling of all new students
- coordinating or administering cognitive, aptitude and achievement tests
- responsibility for signing excuses for students who are tardy or absent
- performing disciplinary actions
- sending students home who are not appropriately dressed
- teaching classes when teachers are absent
- computing grade-point averages
- maintaining student records
- supervising study halls
- clerical record keeping
- assisting with duties in the principal's office
- work with one student at a time in a therapeutic, clinical mode
- preparation of individual education plans, student study teams and school attendance review boards
- data entry

Appendix B: School Counselor Survey

Q1 I have read the Informed Consent document related to this study that outlines the potential risks, benefits, confidentiality of data, and right to withdraw from the study at any time. I understand the Informed Consent document I received. If you have decided to participate in the project, please click the “Yes” button below, which will serve as your consent to participate. If you do not wish to participate, click the “No” button and the survey will terminate and no data will be collected. Do you agree to participate in this survey?

- Yes
- No

If No Is Selected, Then Skip To End of Survey

Q2 As a professional school counselor, do you work with any students in any grade between 7th and 12th?

- Yes
- No

Q3 Please enter your unique identifier (as provided in the email sent to you).

Q4 In what county is your school located?

Q5 Approximately how many students are in your school?

- Less than 400
- 401-700
- 701-1000
- 1001-1300
- 1301-1600
- 1601-1900
- 1901-2200
- More than 2201

Q6 How many years have you been employed full-time as a Professional School Counselor?

- Less than 2
- 2-5
- 6-10
- 11-15
- 16+

Q7 What is your gender?

Q8 What is your ratio of students to school counselors (i.e. what is your individual caseload)?

- Less than 200 to 1
- 201-300 to 1
- 301-400 to 1
- 401-500 to 1
- 501-600 to 1
- More than 600 to 1

Q9 How many Professional School Counselors are currently on staff in your school building?

Q10 What is your position in your School Counseling Department (e.g. Department Chair, Director, School Counselor, Intern, etc.)

Q11 How much has your School Counseling Department spent on operating costs over the last year?

- \$0
- \$1-\$200
- \$201-\$500
- \$501-\$1000
- \$1001-\$2000
- \$2001-\$5000
- More than \$5000

Q12 Please estimate the percentage of time you spend on the following tasks (the total should equal 100%)

- _____ Individual Counseling-Academic
- _____ Individual Counseling-Personal/Social
- _____ Individual Counseling-Career/Post-secondary
- _____ Group Counseling/Classroom Guidance-Academic
- _____ Group Counseling/Classroom Guidance-Personal/Social
- _____ Group Counseling/Classroom Guidance-Career/Post-secondary
- _____ Responsive Services (e.g. Crisis intervention, other forms of counseling)
- _____ Indirect student services-services for students but not directly working with students (e.g. 504/IEP meetings, paperwork, assessments, FBAs, etc.)
- _____ System Support (e.g. cafeteria duty, bus duty, disciplinary issues, covering classes, etc.)
- _____ Other

Q13 How likely is it that students in your caseload are interested in the following post-secondary opportunities?

	Very likely	Likely	Somewhat Likely	Not likely
Attending a 2 year college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending a 4 year college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attending a 2 year college with plans to transfer to a 4 year college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vocational/Technical Training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Military options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Entering the workforce	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please describe)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 Which of the following interventions have you used in the last 12 months when counseling students on post-secondary options? (please check all that apply)

	How do you employ this intervention?			
	Individual Counseling	Classroom Guidance/Groups	Other (e.g. Assemblies, etc.)	Not offered
Developing awareness of career development processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
College recruiter visits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Military recruiter visits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
College fairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ASVAB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career interest assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career aptitude assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career values assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personality assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learning style assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Multiple intelligences assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Goal setting exercises	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Classroom course on career development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Verbal communication skill development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Written communication skill development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
College essay writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diversity education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Job shadowing/interviewing programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Career fairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Financial aid planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
College search processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Resume writing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interviewing skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Collaboration with classroom teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parent programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Presentation skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please describe)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q15 How many of the following STEM (Science, Technology, Engineering and Mathematics) courses are currently offered at your school?

	Number of courses
Standard level courses	
Honors level courses	
Advanced Placement courses	
IB Courses	

Q16 In your opinion, how important is STEM education to the following stakeholders in your district?

	Extremely Important	Very Important	Somewhat important	Not at all important	I don't know
Students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Families	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Counselors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School administrators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taxpayers/Community	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 Please indicate interventions used in your work as a school counselor in promoting and encouraging STEM education (please check all that apply)

- Discussing STEM education and career fields with students
- Exposing students to STEM-related employers
- Attending professional development opportunities regarding STEM education
- Collaborating with STEM-related post-secondary institutions
- Collaborating with local STEM-related industries
- Collaborating with STEM related secondary schools (e.g. Vocational-Technical schools, etc.)
- Other _____
- None of the above

Q18 How often, if at all, do you use the following resources with your students in their post-secondary planning?

	Always	Very Often	Often	Occasionally	Never
Purchased online guidance/counseling tools (e.g. Naviance, Discover)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchased online career assessment inventories (Myers-Briggs, Campbell, Strong Interest Inventory, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Purchased paper/pencil career assessment inventories (e.g. Myers-Briggs, Strong, Campbell, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q19 If you answered occasionally or never to any of the above, please indicate why you regularly don't employ these resources.

Q20 How often, if at all, do you use the following resources with your students in their post-secondary planning?

	Always	Very Often	Often	Occasionally	Never
O*Net, Occupational Outlook Handbook, and other Bureau of Labor Statistics websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Free online career assessment tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Free online guidance/counseling tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computers in the Guidance Office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q21 If you answered occasionally or never to any of the above, please indicate why you regularly don't employ these resources.

Q22 In the last 12 months, have you completed a formal, quantitative assessment to determine students' career/post-secondary needs?

- Yes
- No

If No Is Selected, Then Skip To What barriers do you find to implemen...

Q23 What are the top three student needs that your data indicate?

Q24 Do you use these needs assessment data to plan any of the following?

- Individual post-secondary counseling interventions
- Group counseling post-secondary counseling interventions
- Post-secondary classroom guidance interventions
- School-wide post-secondary counseling interventions
- Other (please specify) _____

Q25 What barriers do you find to implementing formal, quantitative assessments of students' career/post-secondary needs? (please check all that apply)

- Lack of time to implement these assessments
- Lack of time to evaluate the data that are collected from these assessments
- Difficulty in getting students to complete such assessments
- Belief that the data collected would not be useful
- Other (please specify) _____
- None of the above; I don't find barriers to assessing students' post-secondary needs

Q26 Please rate the importance of the following influences in your development of post-secondary counseling interventions for your students.

	Extremely Important	Very Important	Somewhat important	Not at all Important
Student interests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Careers in demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parental influence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local economic forces	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Available resources to you as a school counselor (e.g. budget, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your training in career development processes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q27 Do you currently have a defined curriculum for the delivery of your school counseling program?

- Yes
- No

If No Is Selected, Then Skip To Does your school meet the requirement...

Q28 Does your school counseling curriculum address the American School Counselors Association's Mindsets and Standards (formerly called Student Standards)?

- Yes
- No

Q29 Is your school counseling program recognized by the American School Counselors Association as a Recognized ASCA Model Program (RAMP)?

- Yes
- No

Q30 Does your school meet the requirements of a comprehensive school counseling curriculum under Chapter 339 of the PA State Code?

- Yes
- No

Q31 How important are the PA Core Standards (e.g. Subject Area 13 "Career Education and Work") in your implementation of post-secondary/career guidance services?

- Extremely Important
- Very Important
- Somewhat Important
- Not at all Important

Q32 How is your school counseling department funded?

- Our department receives one lump sum budget allocation
- Each counselor in our department is provided one lump sum budget allocation
- We do not receive a lump sum budget allocation; individual requests are reviewed by administration
- Other (please specify) _____

Q33 What is the approximate overall budget for your school counseling department (in your specific school)? If you do not know, please leave this question blank.

Q34 Approximately, how much is spent (in dollars) on post-secondary counseling resources in your specific school? If you do not know, please leave this question blank.

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The Center for Rural Pennsylvania, 625 Forster St., Room 902, Harrisburg, PA 17120
(717) 787-9555, www.rural.palegislature.us
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