Career and College Readiness Counseling in P–12 Schools
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Career and College Readiness Counseling in P–12 Schools

Second Edition

Jennifer R. Curry, PhD
Amy Milsom, DEd, LPC-S, NCC
For Daniel, I hope you will always explore your options, especially when your path becomes unclear or confusing. In the moments of your life when you seek clarity, the light of adventure will shine before you; and, if you listen with an open mind and heart, the music of possibility will play the song of your future.

—Jennifer R. Curry
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Preface

Our decision to write this book stemmed from our desire to provide school counselors with a resource that could help them easily conceptualize the career and college readiness needs of P–12 students and design relevant and meaningful interventions. We wanted to develop a book that not only was practical but also pushed readers to be intentional in their work. Further, we believed it was important to respond to national initiatives that emphasize a focus on career and college readiness. The unique aspect of our book, compared to many other career counseling textbooks, is that we present a comprehensive, integrated, and practical approach to counseling, specifically targeting career and college readiness in P–12 schools.

In this book, our second edition, we continue to provide a review of developmental, ecosystemic, and career theories to inform relevant P–12 career and college readiness interventions. Given the variation that exists in the psychosocial, cognitive, and academic development of P–12 students, we review numerous developmental theories and assist readers in using them as a foundation to design sequential and developmentally appropriate career and college readiness curricula and interventions. We also help readers understand the ecosystemic influences (e.g., family, school, community, society) on career development and college readiness, and we discuss both why it is important to involve various stakeholders in career and college readiness initiatives and how to involve them. Finally, we provide readers with concrete examples of how to apply various career counseling theories when working with P–12 students.

We start this book with six foundational chapters in which we review (a) current data and issues related to college and career readiness, (b) information to assist with postsecondary planning and career and college advising, (c) professional preparation standards for individuals who will provide career and college readiness interventions, (d) cultural considerations in career and college readiness, (e) career and college readiness assessment, and (f) career and college readiness curriculum development. We then address career development and college readiness needs by grade level. Our focus in each grade level chapter is to help readers apply knowledge of ecosystems, developmental theories, and career theories, and identify ways that multiple stakeholders can become involved in career and college readiness interventions. We also provide concrete, practical examples, including case examples as well as Voices From the Field written by practicing school counselors to demonstrate some of the concepts and interventions we highlight in each chapter.
We greatly enjoyed writing this book, but it was challenging at times for us to decide in which chapter to include certain information. In that vein, we encourage readers not to limit themselves to implementing career and college readiness interventions exactly as we outline them. Many of the activities and ideas we share could be applicable across numerous grade levels if modified to accommodate developmental differences. Also, P–12 students can benefit from repetition, so it never hurts to target something more than once. Our hope is that both preservice and practicing school counselors find this book useful in helping identify career and college readiness needs and design developmentally appropriate interventions that are grounded in theory and research.

In addition to the textbook, we have provided an Instructor’s Manual and PowerPoints intended to support instructors in developing a graduate level course on P–12 career and college readiness. The manual includes a sample syllabus that reflects the content of the textbook. We designed this sample course with a number of useful tools for each chapter including discussion questions, project-based activities, quizzes and essay questions, and social media that may be useful for teaching this course. These materials may also be additive to an existing course as supplemental materials. The Instructor’s Resources are available to qualified instructors by e-mailing textbook@springerpub.com.
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P–12 Career and College Readiness: Preparing All Students for a Postsecondary Plan

In this chapter, we discuss the factors involved in students’ postsecondary decision making. In addition to 4-year college degrees, we give attention to career-bound students pursuing industry recognized credentials (IRCs) as well as those hoping to transition to technical schools or community colleges for certificate programs or associate’s degrees (ADs). In terms of students pursuing 4-year college degrees, we focus on the importance of options including dual enrollment (DE), Advanced Placement (AP) courses, and college entrance exams. This chapter includes interventions designed to help students make the best possible postsecondary educational choices.

THE SCHOOL COUNSELOR’S ROLE: CREATING A CAREER AND COLLEGE READINESS CULTURE

In Chapter 1, we addressed many federal initiatives aimed at career and college readiness (i.e., Every Student Succeeds Act, Reach Higher) and two important documents created by the American School Counselor Association (ASCA): the National Model (2012) and Mindsets and Behaviors (2014). Yet, in order to truly create postsecondary opportunities for students, school counselors need to create a sustained culture of career and college readiness spanning P–12 that includes all stakeholders (e.g., parents, students, community partners, administrators). One group that has done an excellent job defining specific ways to do this is the National Association for College Admission Counseling (NACAC). Originally approved by their executive board in 1990, NACAC continues to develop and maintain a Statement on Precollege Guidance and Counseling and the Role of the School Counselor. This document is important because it offers a perspective from outside the P–12 setting of how best to assist students in preparing for and transitioning to higher education.

The NACAC statement (1999) includes several noteworthy considerations. First, the statement highlights elements of an effective precollege program that is highly aligned with the ASCA National Model and addresses issues of equity in the precollege educational environment. Second, the NACAC underscores the need for ethical practice, administrative support, and that individuals working on college preparation with students are adequately trained. This is...
critical given that higher education is evolving and so are students. What is expected today in the college admission process and for college success is qualitatively different than in years past, as we discuss in this chapter. Therefore, having school counselors who are adequately prepared with the most accurate and up-to-date information is necessary for students’ success. In essence, the professional development of school counselors is a crucial investment.

The NACAC (1999) statement also takes a developmental approach (similar to this book) in how college preparation should be approached at the middle school and high school levels. At the middle school level, NACAC advocates for interventions designed to promote self-awareness about interests, values, and attitudes; career and educational planning; and an understanding of high school academic options related to careers and college. We agree that these are core developmental issues related to career and college preparation for middle school students and we address these topics in Chapters 10 and 11. For high school students, NACAC recommends a focus on career and college planning, goal setting, decision making, assisting parents and students in understanding the financial aid process, college visits, interviewing skills, and timelines for college applications. We agree that these are helpful skills to develop with high school students and address these in Chapters 12 to 15.

The degree of national interest in the topic of career and college readiness is directly related to the high stakes for America’s future. As noted in Chapter 1, careers matter. Here, in Chapter 2, we focus on the pathway to careers through postsecondary education and training. Yet, more than ever before, that pathway may be a bit confusing, and both students and families may be unsure of the best option. We begin by exploring why college decision making has become so complicated.

**DOES COLLEGE PAY OFF?**

The answer is “yes” and “it depends.” When thinking about college, traditionally, most people think of a 4-year degree. Numerous types of certificates, degrees, and postsecondary options exist in many different fields. How do we help students choose the right one(s) for them? An important part of school counselors’ work will be to help students (and their families) become aware of the sometimes multiple options and pathways they could take to achieve their long-term career goals.

Recently, I, the first author, was on a high school visit observing a school counselor advising students in a career track class. It was part of a track in which students earn a Certified Nurse Assistant (CNA) certificate for completing specified course work in high school. The school counselor was advising the high school students on nursing degree options after high school through 2-year community college and 4-year university programs. After the lesson, the school counselor stated to me that most of the students completing the certificate were likely to go on to a complete 2-year Associate of Science in Nursing (ASN) degree but not a Bachelor of Science in Nursing (BSN) as the students...
in this track did not have the prerequisites for 4-year college admission. The school counselor confessed that she often felt she had no other career options to tell the students in the CNA program about in group advisement other than nursing. I asked whether or not she had ever considered talking about other certificate and 2-year options in the medical field, like sonography. The school counselor asked me what a sonographer does, and I explained that some do MRI and others do ultrasounds, while others are even more specialized (e.g., cardiovascular).

I walked with her to a computer and helped her look up sonographer on the Occupational Outlook Handbook (U.S. Department of Labor, n.d.). In 2015, a sonographer needed an AS (2 year) and the occupation was growing by 24% (to put this in perspective, the average occupation for 2015 is growing by 7%). Median pay for sonographers in the United States is $63,630 per year (U.S. Bureau of Labor Statistics, 2015). In this case, a 2-year AS would definitely pay off if you consider that the degree is very quick to obtain, an individual would not need to accrue much debt to receive the degree, and once obtained, the likelihood of employability is high. Yet there are bachelor’s and master’s degrees that may not have this high of a payoff.

You can probably think of countless scenarios like this, one where you or other school personnel did not have comprehensive information to share with students. Indeed, it would be impossible to know of every potential career that exists. Yet, it is critical that school counselors are aware of the types of training programs offered in their schools, educational options available to students, and resources available to help broaden students’ career and college exploration to view a large range of careers and postsecondary options. Another important activity school counselors can engage in is to help teachers learn about career and college options related to the courses they teach and point them to resources that will assist them in linking classroom content with the world of work. Teachers who are knowledgeable about their content areas may be the best allies in helping to determine what occupational areas are showing promising growth, sustainable income, and manageable degree or certification attainment costs.

Four Rules to the College Payoff

Carnevale, Rose, and Cheah (2011) noted that there are four basic rules in determining whether or not college pays off. Rule Number One is that degree level matters. Typically, this means the higher the degree, the greater the pay. Rule Number Two is occupational choice can mean more than degree level. For example, someone with a bachelor’s degree in engineering may earn more than a person with a doctoral degree in History. The higher degree does not mean a higher salary in this case because engineers generally receive greater remuneration than historians.

Rule Number Three is that although occupation may determine salary more than a particular degree, the level of education within occupations still matters in terms of salary (Carnevale et al., 2011). In our previous example,
we stated that an engineer with a bachelor’s degree may make a greater salary than a historian with a doctoral degree. Rule three basically states that within the field of engineering, engineers with higher degrees (i.e., master’s or doctoral) make higher salaries than those with lower degree attainment (i.e., bachelor’s).

Rule Number Four is that race or ethnicity and gender are complicating factors that actually matter more than education or occupation in determining earnings (Carnevale et al., 2011). Consider Carissa, an African American female who is the director of a human resources department in her company in Texas. She has a master’s degree and 10 years of experience. In spite of her experience and education, the likelihood that she receives equal compensation to a White male in her same position with the same degree and same years of experience is not promising. In fact, according to the American Association of University Women’s The Simple Truth About the Gender Pay Gap (2016), in Texas, median annual earnings for women are 79% of that for men. So for every dollar a man with her same credentials would earn, Carissa would earn $0.79.

The States’ Historic Disinvestment in Higher Education

As a result of the 2008 economic recession, unprecedented widespread and deep cuts to funding for higher education were made across the United States. From 2009 to 2012, 48 states decreased funding to higher education through direct support to public institutions, and these cuts ranged from 14.8% to 69.4% (Mortenson, 2012). Concomitantly, due to unemployment or poor employment possibilities during the recession era, many individuals left the workforce and returned to higher education to seek degrees or certifications that would make them more marketable (Baylor, 2014). Also, student enrollments increased by 13.7% in the years 2008 to 2012, and federal student loan borrowing increased in those same years by 54.6% (Baylor, 2014). In sum, as states decreased funding to higher education to make up for budget deficits, student tuition increased substantially. At the same time, student enrollments increased. This leaves institutions of higher education in somewhat of a quagmire in that it is unlikely that states will reinvest fully the funding that was cut during this historic period. Yet, keeping college affordable and providing the necessary revenue to keep higher education afloat is a difficult balance.

Blumenstyk (2015) noted three trends that emerge as colleges and universities now have to compete for tuition revenue that offsets the loss of state investments: (a) greater recruitment of graduate students who often pay a higher differential per credit hour, (b) greater recruitment of out-of-state and international students who pay higher rates, and (c) placing more courses and programs online to offset the cost of instructors, materials, buildings, maintenance, and being able to retrieve a higher per hour credit amount. These trends are concerning, especially because they place an incredible financial strain on the most academically vulnerable populations (e.g., low socioeconomic status [SES], first-generation students). These are the students who most often need greater access to higher education in terms of affordability.
Student Loan Debt

According to *The Economist* (2015), student loan debt tripled from 2004 to 2014, and in the United States currently, student loans now total over $1.2 trillion. Additionally, student loan debt has increased at twice the rate of inflation (The Institute for College Access & Success, 2015). Students whose degrees were from for-profit colleges seem to struggle the most in terms of repaying their loans, with almost 20% defaulting on their loans within 3 years (The Economist, 2015). Based on information from the Institute for College Access & Success's Project on Student Debt (2015), 69% of college graduates from public and nonprofit colleges in 2014 had student loan debt, and the average debt per borrower was $28,950. According to *U.S. News and World Report* (2015), the average loan default amount is $14,000 or less.

Given the increase in cost of college and the high likelihood that students will incur some debt to attend college, school counselors need to be cognizant of ensuring that (a) students have full access and exposure to a career and college readiness curriculum, (b) students are aware of opportunities to earn college credit while in high school, (c) students and parents are provided with financial literacy training pertaining to budgeting for college throughout the P–12 experience, and (d) students explore the many paths to the field of their choice to determine the best college payoff option.

The Value of a Liberal Arts Degree

In an era where the cost of college is increasing dramatically, and student loan debt is skyrocketing, students and their families may wonder if it would be more prudent to pursue shorter degree options. For example, rather than seeking a Bachelor of Science degree in Computer Science, a student might wonder if her career goals in the Computer Science industry are achievable with an AS. As a school counselor, it is important to know each student’s hoped for outcomes when giving postsecondary advisement. What, ultimately, is the student’s career goal? Is the student able to work and go to school? Does the student have access to financial support (scholarships, grants, family support)? What degree aligns to the student’s career interest? It is important to help students and their families weigh all of this information rather than just deciding to go with the cheapest or quickest option.

It is also essential to remember that many students and their families may not know what is additive about the college experience beyond academic content. As McNutt (2014) underscored, the value of a 4-year liberal arts degree is more than just learning about humanities; it is critical thinking, problem solving, and group work. Although there are many shorter options to satisfying career outcomes, we do want to note that the value of college is often beyond the classroom walls. Opportunities for leadership, mentorship by professors, and access to labs and research may be very important to developing career and life experiences for many students. As we review various postsecondary options, we do not want to exalt one option over others.
We are simply highlighting each in the hope that school counselors will expose students to a variety of opportunities and help them explore the potential benefits and limitations of each.

UNDERSTANDING THE VALUE OF A DEGREE IN CONTEXT

All postsecondary educational options have to be understood in context. What can a person do with a particular certificate or degree? Are subsequent degrees necessary to accomplish the goals particular to an individual’s career aspirations? Is there high selectivity within programs and, if so, are the selection criteria based on grade point average (GPA), test scores, or other data? Beyond the degree, are there certifications, licenses, board exams, or other credentials that must be obtained to practice in the field? All of these questions are important to examine in considering how much education, training, experience, and cost will be incurred to pursue a particular career path or achieve a career goal. Additionally, understanding both how a career is trending in terms of projected outlook for growth and the anticipated need for a career within different geographical locations are important considerations when working with students to consider careers within context.

For example, imagine a student, Jorge, is interested in psychology and believes he would like to be a clinical psychologist. His school counselor, Mr. Rabin, explores with Jorge the pathway to becoming a clinical psychologist. Together, they discover that Jorge will need to obtain a bachelor’s and a doctoral degree. In addition, he will need to complete an internship or residency. Based on the Occupational Outlook Handbook (U.S. Department of Labor, n.d.), they note that this career path is growing at a higher-than-average rate (projected at 19% growth). Jorge has no concerns about attending school all the way through a doctoral degree. He is fully committed to this path and to making the financial choices to make this happen.

College Decision-Making Factors

Many factors influence students’ decisions about where to attend college. The choice of school is a major life decision, and much has been studied about how students make their decisions. The salience of certain factors has been found to vary to some degree by race, ethnicity, and gender; yet, the overarching main factors identified in literature as influencing students’ college choices include cost, cost savings, academic reputation of the institution, peer influence, and parent involvement and expectations (Holland, 2011; Lee, Almonte, & Youn, 2013; Lillis & Tian, 2008). In a study of college tour participants, Curry, Latham, and Sylvest (2015) found that students fell along a spectrum of college decision-making readiness factors including: financial literacy, family influence, social influence, knowledge of academics, personal awareness, career choice and program alignment, understanding of campus culture, and understanding college resources. Curry et al. (2015) found that financially literate students made college decisions from a comprehensive
understanding of money. They understood debt, credit (good and bad credit), subsidized versus unsubsidized loans, the difference between a grant and a loan, and how a credit card was different from a debit card; they had been to a bank and had balanced a checkbook, and some had a planned budget for their first year of college. Curry et al. suggest that to be truly financially literate and ready for college, students do not necessarily need to avoid colleges where they will take on debt. They should, however, be able to describe types of debt, the amount of debt, and how long debt will take to pay off along with how much they will realistically earn.

Sometimes, the financial choices students will need to make are more nuanced. For example, imagine a student, Karen, is awarded a scholarship to a state university that will fully cover her tuition. Her parents urge her to go there. She also applies to a very expensive private college and finds out that she has been given a scholarship that will cover her tuition and fees. The cost of living will be higher at the private school, and there is a required meal plan for first-year students. However, she would have to pay fees, and room, and board at the state school as well. After her family calculates the annual difference in cost, it comes to $900. For the difference in class size, program offerings, faculty mentoring, and institutional reputation, Karen decides the $900 per year is well worth it to accept admission at the private college. In this example, Karen’s values and her estimation of the difference in cost and the benefits from each school were weighed in making an informed decision.

In terms of knowledge of academics, students should be aware of the types of programs offered at specific schools, whether or not programs are accredited, and whether or not credit is transferrable to other institutions. For example, if a student plans to start at a community college, does the 4-year state university she is interested in have an articulation agreement to accept credit earned? Students and families also are encouraged to gather information about what enrolling in college as “undecided” or in a program for students who are unsure of what to initially major in might look like academically. Many students enter college undecided, but every college has different requirements for how soon a student is required to choose a major and also for the types of courses they would be eligible to enroll in prior to formally selecting a major.

Finally, the college-ready student also should be able to weigh the interests of social, peer, and family influences in making a college decision in a healthy and balanced way. During Curry et al.’s college tour study, one participant, who we’ll call Chris, told members of the research team, “I plan to attend X university because my family and I have tailgated there since I was born. My parents would disown me if I went anywhere else.” This young man had not chosen a major but had chosen a university based on the football team. Although we agree tailgating is fun, our recommended practice is to challenge students to weigh many factors. Another participant, who we’ll call Levi, made a different choice based on personal awareness. He stated, “I really know myself too well to pick a party school. I don’t want to go to a large university like X because every weekend is football and tailgating. I don’t think I would focus on my classes. I want to have fun, but I need to remember why I am in
school, I’m going to get a degree. Yes, I want to have fun, but in the end, I want to have my degree. I can’t do that if I don’t focus.”

ADVISING THE COLLEGE-BOUND STUDENT

Students wishing to go to college must begin preparing very early in their academic careers. Colleges review a wide variety of data when making decisions about who to admit, but understanding what goes into admission decisions is critical for students to determine how best to prepare academically in order to be competitive. School counselors should provide this information to students and their families to help them understand how various factors are weighed by different schools in the admissions process.

In the 2011 State of College Admission Counseling report by the NACAC (Clinedinst, Hurley, & Hawkins, 2011), admissions officers identified grades in college preparatory courses, strength of high school curriculum, college admission test scores, and overall high school GPA as the top factors considered in the admissions process. The next most important factors included essays, letters of recommendations, and extracurricular activities. Students’ background information such as race, ethnicity, first-generation status, and related factors were considered by 25% to 31% of the colleges included in the study.

College Application Assistance

Some things we know about college enrollment came from the Consortium on Chicago School Research (CCSR; Roderick, Nagaoka, Coca, & Moeller, 2008), a large study of students in the Chicago Public School system. One key finding from this landmark study is that regardless of students’ academic achievement level or GPA, they still had general difficulty applying to and enrolling in 4-year colleges. This finding underscores the myth that somehow gifted or very bright students don’t need assistance with college applications or college transitions. Kim and Gasman (2011) noted that this same phenomenon happens frequently with Asian American students who often fall under the preconceived notion of the model minority and are presumed to have a college plan. This kind of mistaken assumption about certain students contradicts what is common sense: Applying for college is a new task to most people and therefore is not a skill they have already developed. This new task comes with anxiety and confusion for most students and it should not be assumed that students will be able to just figure things out for themselves.

The second key finding from the CCSR (Roderick et al., 2008) is that attending a K–12 school with a college-going culture strongly influences the college aspirations of all students. Thus, all students, whether they are in AP, honors, regular course work, or special education, should be exposed to a college-bound culture because all students need a postsecondary educational option. Some discouraging findings from the CCSR indicated that even students with high college aspirations don’t always submit applications, and
even when they do, only about half who applied actually enrolled in college (Roderick et al., 2008).

Further compounding the concern of the CCSR findings, Smith, Pender, and Howell (2013) found that of those students who do apply to and enroll in 4-year colleges, approximately 40% are undermatched—meaning they could attend a more selective postsecondary institution but choose to go to a less selective one instead. Smith et al. found that undermatching was most likely to happen to first-generation college students from low SES, rural areas. According to Smith, Hurwitz, and Howell (2014), undermatch occurs for a variety of reasons including distance from home, financial considerations, isolation, lack of information, application behavior (i.e., only applying to schools where they know a current student, for example). In summary, the college application process is tenuous for most students and their families regardless of academic achievement or college aspiration, and school counselors will need to be prepared to assist all students in the college decision making and application process.

These findings are helpful because they lend to noteworthy implications for school counselors. Specifically, counselors should ensure that all students receive college application information and that all students (and their families) receive support or assistance in filling out applications. For students with language or cultural barriers or who come from low SES families, school counselors should consider ways to ensure families have support and access to information. One state school counselor director relayed the following story. A school counselor in a school with nearly 50% Latino students held a Free Application for Federal Student Aid (FASFA) night at her school to try to encourage students and their families to fill out the FASFA form to determine how much financial aid students qualified for as part of the college application process. She invited a Spanish translator and advertised that families in need of translation services would be provided a separate area to fill out their FASFA forms with a translator to provide assistance. Attendance was low (about 15% of all families including Latino families) and the school counselor wondered why her provision of a translator had not brought in more families. A colleague suggested to her that the next year she provide dinner, child care for younger children, and a completely separate night for Spanish-speaking families. By doing so, Spanish-speaking families would not have to remove themselves and be dismissed from the larger, English-speaking group of families, which might feel alienating. The school counselor took this advice and tripled participation the following year. By accommodating families with younger children who needed childcare and dinner, and providing translation without making anyone feel embarrassed or different, the school counselor improved the FASFA form completions and found more potential funding for students to go to college. As a result, the number of completed college applications also improved.

**College Admissions Terminology**

School counselors also should ensure that students and their families are familiar with terminology related to college admissions. Clinedinst et al.
(2011) defined a few terms important to understanding college admissions processes:

*Early Action* is when students apply to a preferred institution and receive an answer well before the institution's regular response time. *Early Decision* is when students make commitments to institutions, indicating that, if admitted, they will definitely enroll. *Legacy Applicants* are students who are applying to a college that a relative has graduated from. According to The College Board (2016a), these students, known as “legacies,” are given preference in admissions decisions by some colleges. *Need-Blind Admission* occurs when an applicant’s financial needs are not considered in the admission process. *Open Admission* involves accepting any applicant regardless of high school rank or GPA as long as the applicant is a high school graduate. However, as noted by The College Board (2016a), colleges with open admission may have major/program-specific entrance criteria. *Regular Decision* refers to an application time period and decisions made on a specific timeline. *Rolling Admission* is when an institution reviews applications as they are turned in and makes decisions continually rather than on timelines. *Selectivity* is defined as, “the proportion of candidates who are offered admission” (p. 13). The most selective higher education institutions are considered to be those with a 50% or less acceptance rate. According to Clinedinst et al. (2011), the average acceptance rate for 4-year institutions in the United States is 65.5% with a range of 10%–90%. *Yield* is “the percentage of admitted students who decide to enroll” (p. 14). The average U.S. 4-year institution yield rate is about 45%.

School counselors will need to familiarize themselves with many terms in order to provide adequate advisement in the career and college counseling process, and the list provided here is certainly not exhaustive. For a more comprehensive review, we encourage school counselors to visit the College Admission Glossary: Learn the Lingo page provided by The College Board (2016a).

By understanding important college admissions-related terms, school counselors are better prepared to help students navigate the college application process. For example, if a school counselor is working with a student who is a junior and has a 34 on the ACT and a weighted GPA of 4.3, the school counselor might recognize that the student will likely be competitive in the early admissions process through Early Action. By understanding both the language and the process of college applications, school counselors are better able to demystify and explain those things to students and their families.

**Evidence of Academic Rigor and College Preparation**

Another critical piece of the advisement process related to college is preparing students for the level of rigor needed for their intended career and major.
For example, a student planning to be a chemical engineer and who wants to enroll immediately in a 4-year college (as opposed to starting at a 2-year college) will need to have high-rigor preparation while in high school in the areas of math and science (i.e., calculus, chemistry, physics) and will need to score well on college entrance exams. Part of academic advisement is ensuring that students understand that colleges and academic programs will look at the type of course work they have completed, not just their GPA. Sometimes, students and their parents are under the misguided assumption that a good GPA is enough to get into a great university. They don’t realize that competitive schools look at the kinds of courses students have taken while in high school. Throughout this section, we review criteria related to academic rigor and college preparation that are reviewed in the college admission process.

**ACT®**

The ACT is a nationally standardized test that is used for college admissions. Students receive scores in four areas (Math, Science, Reading, and English) including a composite score on a scale of 1 to 36 and subscale scores in each area. Historically, students typically took the ACT in their junior year. However, many school counselors now encourage students to take the ACT early and often to become familiar with the exam and to increase their score. Additionally, ACT preparation courses are offered by many high schools either after school or during the summer. Although these test preparation courses vary in how they are designed from after school tutoring to weekend courses, to workshops, they tend to be designed to familiarize students with the content and format of the ACT test. However, Allensworth, Correa, and Ponisciak (2008) found that ACT test prep actually did not result in improved test scores and, in some cases, test scores appeared to decrease. Allensworth et al. speculated that the reason for the decrease is that students, although motivated to do well on the ACT, were not connecting the ACT to their course work or to anything meaningful in their academic or career life. Therefore, a better strategy is to improve career and college readiness skills within content courses via a focus on metacognition (critical thinking, problem solving, analysis) rather than merely focus on test-taking skills. Indeed, students across the United States do not appear to be excelling at the ACT benchmarks in spite of resources expended to improve scores (see Table 2.1).

<table>
<thead>
<tr>
<th>No. of Benchmarks Met</th>
<th>Percent of Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
</tr>
</tbody>
</table>

Adapted from ACT, Inc. (2015).
The SAT, another standardized exam used for college admissions, changed dramatically in 2015, and features of the new SAT touted by The College Board (2016b) include an optional essay, no penalty for guessing answers, free practice exams, and real world vocabulary. The SAT is scored by benchmarking. In other words, a student’s score is measured against an ideal score for students in a particular content area at a specific year in school. For example, 8th, 9th, 10th, 11th, and career and college grade benchmarks exist for Math and for evidence-based reading and writing content areas.

In 2015, 1.7 million students took the SAT (The College Board, 2015). Of special interest, 32.5% of those taking the SAT in 2015 were underrepresented minorities and 25.1% of all test takers took the exam using a fee waiver. This indicates that there is increasing access to the SAT from previous years. However, a closer examination shows that the percent of students meeting career and college readiness benchmarks by race is very concerning (see Table 2.2).

**AP Courses**

To create greater rigor for high school students, many districts and schools offer AP courses that allow students to take college level courses while still in high school. These courses allow students to experience both the content and the rigorous expectations of the college classroom. Through participating in such courses, high school students build greater capacity to manage their time, stress, and workload, which are essential for success in college. Additionally, many AP courses require more project-based learning and term papers, and promote critical thinking, problem solving, and other metacognition skills that are required in college courses. As noted in a report to the College Board by Wyatt, Patterson, and Di Giacomo (2015), students taking AP courses for college credit must “demonstrate proficiency by taking a nationally standardized end of course exam” (p. 5). Additionally, to ensure standards of rigor are maintained, all high school AP courses designated as potential college credit-bearing courses are subject to audits by the College Board (Wyatt et al., 2015). According to The College Board (2015), 2.5 million students took AP exams in 2015, up from 2.3 million in 2014.

**Dual Enrollment**

DE differs from AP in that students are actually enrolled in a college course that is taught either at a high school, on a college campus, or via distance

### TABLE 2.2 Percent of SAT-Tested High School Students That Met the SAT Career and College Readiness Benchmark, by Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Percent of Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>16.1</td>
</tr>
<tr>
<td>Asian</td>
<td>61.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>22.7</td>
</tr>
<tr>
<td>Native American</td>
<td>32.7</td>
</tr>
<tr>
<td>White</td>
<td>52.8</td>
</tr>
</tbody>
</table>

Adapted from The College Board (2016c).
learning courses (Wyatt et al., 2015). To determine how effective AP or DE courses were in terms of first year college GPAs, Ewing and Howell (2015) examined the relationship of GPA and participation in AP Biology, AP Chemistry, AP Physics, studying 5 hours per week, taking any AP course, living in a residential program, living in an honors college, taking a DE course at a community college, and taking a DE course at a 4-year college. They found that AP Biology, Chemistry, and Physics had the strongest relationship with college GPA. Interestingly, while DE at a 4-year college had a small positive relationship (i.e., taking the class resulted in increases in GPA), taking a DE class at a 2-year school had a small negative relationship with GPA, calling into question the expectations for rigor that were likely established during the DE course (Ewing & Howell, 2015; Table 2.3).

Remedial Courses in U.S. Colleges and Universities

Although many students enter college with a lot of academic rigor and preparation from AP and DE credit, more and more students are entering college without the requisite course work. Students entering colleges unprepared for college level course work may choose to, or might be required to, enroll in remedial classes. Although some experts have pointed to this phenomenon as evidence that U.S. students are unprepared for college academics, Sparks and Malkus (2013) cautioned that data about remedial courses is difficult to evaluate conclusively. Specifically, in a report issued in 2013 on First Year Undergraduate Remedial Course taking, the National Center for Education Statistics (NCES) pointed to several issues that problematize outcome data: (a) remedial course enrollment is predominantly self-report data, (b) transcripts do not indicate if courses are remedial or developmental, and (c) students who need remediation are not always the same students who actually enroll in and complete remedial courses (Sparks & Malkus, 2013). Thus, data should be considered within that context.

Within that frame, we do know that the most recent self-report data analyzed by Sparks and Malkus (2013) suggested that nearly 24% of first-year students attending public, 2-year institutions take at least one remedial course compared to 21% of first-year students attending public, 4-year institutions. Private not-for-profit 4-year institutions had first-year students that reported 15% remedial course enrollment, while private for-profit students reported 11% at institutions that were 2+ years and 5.5% at institutions 2 years or less. Variance occurred among 4-year institutions based on selectivity, with the

<table>
<thead>
<tr>
<th>Variable</th>
<th>No AP/DE</th>
<th>&lt;3 AP</th>
<th>3 + AP</th>
<th>DE 2 Year</th>
<th>DE 4 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-year enrollment</td>
<td>57.3%</td>
<td>75.2%</td>
<td>87.6%</td>
<td>60.7%</td>
<td>82.1%</td>
</tr>
<tr>
<td>4-year persistence</td>
<td>71.2%</td>
<td>80.1%</td>
<td>88.7%</td>
<td>74.4%</td>
<td>77.9%</td>
</tr>
<tr>
<td>4-year graduation</td>
<td>30.2%</td>
<td>38.6%</td>
<td>60.6%</td>
<td>39.6%</td>
<td>44.1%</td>
</tr>
<tr>
<td>6-year graduation</td>
<td>56.4%</td>
<td>66.5%</td>
<td>82.1%</td>
<td>64.3%</td>
<td>67.3%</td>
</tr>
<tr>
<td>4-year GPA</td>
<td>2.69</td>
<td>2.76</td>
<td>3.21</td>
<td>2.78</td>
<td>2.94</td>
</tr>
</tbody>
</table>

Adapted from Ewing and Howell (2015).
more selective schools having first-year students report lower enrollment in remedial courses and less selective schools having first-year students report greater enrollment in remedial courses. The percent of students reporting enrollment in remedial courses by selective 4-year institutions follows: very selective (12.8%), moderately selective (18.8%), minimally selective (20.7%), and open admission (25.6%).

The school counselor’s role in preparing students is to ensure that they are as ready as they can be for their postsecondary path. In some instances, students who were able to complete more advanced or rigorous course work in high school and gain acceptance to a 2-year or 4-year college simply might not have developed the skills needed to take college-level course work in certain subject areas. That is, they might have passed their high school classes, but with low grades and limited understanding of the material. Other students might not have been able to enroll in or complete college preparatory course work for a variety of reasons. Students who begin with a deficit in terms of academic preparation or skills might choose to, or might be required to, enroll in remedial course work prior to or during their first year of college. During advising meetings, school counselors can prepare students and their families for this kind of possibility so that it is not a surprise. A number of programs could be put into place proactively, however, to help students prepare for college. One option to consider is Bridge programs.

Bridge Programs: Pathways to 4-Year College

Bridge programs are meant to create academic connections between postsecondary institutions. In most cases, academic credit or a degree at one institution is transferred as credit into a similar degree or major field of study at another institution through agreements between the institutions. These agreements, known as articulation agreements, are meant to create a simplified pathway and smooth transition process for students moving from 2-year institutions to 4-year institutions. Many community colleges have such articulation agreements with 4-year universities such that students earning an AS may transfer to the 4-year institution and receive credit for their AS toward their 4-year bachelor’s degree.

Other types of bridge programs include programs meant to create pathways between secondary and postsecondary education for students in underrepresented groups. One example is TRIO, funded by the Higher Education Act (U.S. Department of Education, 2016), which includes multiple programs:

1. *Upward Bound*. Upward Bound programs target low-income high school students who are first-generation college bound. The program provides academic support for college entrance requirements including math, science, composition, literature, and foreign languages. Other types of college preparation include cultural enrichment, financial literacy, and college application assistance (U.S. Department of Education, 2016, CFDA 84.047).
2. *Gaining Early Awareness and Readiness for Undergraduate Programs* (GEAR UP). GEAR UP is an early intervention grant program that is highly competitive. The program is meant to increase college attendance for low-income students. Students begin the program no later than seventh grade and remain in the program all the way through high school (U.S. Department of Education, 2016, CFDA 84.334A).

3. *Talent Search*. Talent Search is a comprehensive program that encourages individuals to complete or reenter secondary and postsecondary education. Services provided through the program include career exploration and assessment; academic, financial, career, and personal counseling; tutoring; college campus tours, college program information, college entrance exam preparation, and mentoring; family workshops; college admissions assistance; and special activities for sixth, seventh, and eighth graders. Funding is generally allocated to programs that serve students with disabilities, homeless children and youth, students in foster care or those aging out of foster care, traditionally underrepresented groups, and students with limited English proficiency (U.S. Department of Education, 2016, CFDA Number 84.044).

Most of the TRIO programs run adjunctively to P–12 schools through entities that work in collaboration, such as community partners, local universities, and government agencies. These groups will likely reach out to school counselors and administrators asking for access to students for the various programs they provide or for help coauthoring grant proposals, developing programs, and soliciting participants. Thus, school counselors may wish to know the efficacy of such programs before agreeing to such partnerships. The good news is that, overall, TRIO programs have been shown to be very effective. For example, in a study conducted by The Pell Institute (2009), three key findings about TRIO participants (compared to their non-TRIO participating and demographically similar cohort counterparts) were found: TRIO participants were (a) more likely to remain in higher education (12% more likely to be retained after year one and 23% after year two), (b) accrued more college credits (6% in year one, 4% in year two), and (c) earned higher GPAs (7% higher after year one, 5% higher after year two).

**THE CAREER-BOUND STUDENT**

Although some students may want to seek employment upon high school graduation, it is critical to ensure that they are informed of their options and that they are fully prepared with the employability skills as well as credentials they need for their chosen career path. In this section, we examine the growth of IRCs, career and technical education, ASs, and resources to help school counselors working with students seeking career/technical certificates.

**Industry Recognized Credentials**

IRCs, sometimes referred to as Industry-Based Certifications (IBCs), are certificates or credentials earned either in secondary schools or in postsecondary
institutions that signify an individual has attained a standard set of skills recognized by a particular industry (National Research Center for Career and Technical Education, n.d.). Many of these certificates are issued by national organizations. For example, a certified welder must be certified by the American Welding Society (AWS), and according to the AWS website (2016).

The Certified Welder (CW) program tests welders to procedures used in the structural steel, petroleum pipelines, sheet metal, and chemical refinery welding industries. There is a provision to test to a company-supplied or noncode welding specification. Tests for Certified Welder (CW) are performed at AWS Accredited Testing Facilities located throughout the world.

Many high schools around the country provide career and technical education leading to IBC or DE credit in a technical postsecondary school. Many advantages exist to this approach for both students and the workforce.

**Advantages of IRCs for Students**

One key advantage for students is that IBCs are based on an analysis of workforce needs and should reflect the needs in students’ surrounding labor market; students can expect to find jobs in these areas. For example, in areas of high construction growth, IBCs available in the secondary school system might include drafting, carpentry, pipefitting, welding, and electric. Students ideally would choose high school academic courses with content that aligns to the skills needed for the career path chosen so that any additional postsecondary course work needed would be minimized. For example, students choosing welding as an option will need chemistry, as welding requires knowledge of the elements of metals when heated. Thus, a school counselor working with a student choosing a high school welding path would want to ensure that the student has taken the science and math courses necessary to be successful in completing a welding training program. Nationally recognized certificates are generally portable; therefore, once students complete these certificates, they are able to move to most places in the United States and their skills and competencies are recognized and transferrable to other labor markets (Wilcox, 2006).

**Advantages of IRCs/IBCs for the Workforce**

One advantage of IRCs for the workforce is accountability. That is, by setting standards of agreed-upon competencies and skills for individual occupations, the certificates help to ensure a competent workforce. Additionally, high school training programs are based on relevance, or current trends in the labor force; thus, the IRCs that are awarded are for occupations that are most needed. Specifically, in many states, workforce commission or workforce investment councils regularly meet with state boards of education to identify areas of growth and opportunities to ensure certificate programs are offered to secondary students in areas of high employability. Finally, because IRCs can
be awarded through career and technical education in high school or students can apply credit (DE) earned in high school to their postsecondary certificate training, the educational costs of IRCs are controlled, creating a larger pipeline into the labor market (Wilcox, 2006). More specifically, students who might otherwise not be able to afford postsecondary education could potentially graduate high school having met all or nearly all of the requirements for an IBC. With this knowledge, students might be more inclined to pursue these kinds of career paths.

**Associate’s Degrees**

ADs are generally 2-year degrees that may be earned through community colleges or specialized institutions. ADs typically have specialized course work that focuses on the development of skills related to a particular occupation, rather than generalized course work meant to develop critical thinking or problem-solving skills. According to the *Occupational Outlook Handbook* (U.S. Department of Labor, n.d.), an example of a high-paying career that can be obtained with an AD is an electrical engineering technician. The median pay for this career is $61,130 per year with an AD, and no experience is required. However, this occupation’s projection is declining by 2%. Thus, researching the growth rate of careers associated with ADs is just as essential as with 4-year college degrees.

**Community College Stigma**

Holland (2015) described college aspiration in the United States as a “college for all and community college for none” (p. 1) phenomenon, as the concept of college has become synonymous with 4-year institutions and 2-year institutions have garnered a stigma as somewhat less than college. The national discourse on the importance of college has had a desired effect in increasing students’ college aspirations across diverse groups. For example, based on a survey of seniors in Chicago Public Schools, the CCSR (Roderick et al., 2008) found that 83% of students aspired to a bachelor’s degree, with only 13% aspiring to an AS. However, many students expect to get into college and have success without realizing the degree of preparation or rigor necessary to be successful in a 4-year institution. This is particularly true for low SES, minority first-generation college students who have little direct exposure to college through others in their lives (Holland, 2015).

Consequently, many students have had to create strategies for coping with the stigma of attending community college. In a qualitative study conducted by Holland (2015), some of the stigma-mitigating strategies employed by students who were going to be attending 2-year colleges rather than 4-year colleges follow.

1. **Transfer.** Some students talked about college in terms of their intended transfer school. In other words, they would not mention the 2-year college
where they were starting but would instead talk about the 4-year college where they were planning to transfer to after 2 years.

2. **Disengagement.** This strategy was used when students wanted to separate academic achievement, intelligence, and 2-year college attendance from their identity. Holland noted this most often happened with African American males who would state that they were simply attending a 2-year college to prepare for a vocation or career as an athlete.

3. **Taking a Year Off and Avoidance.** Some students talked about taking off a year or avoided talking about school rather than going to a 2-year college. They either did this because they did not want to acknowledge not getting accepted in a more selective school or were not ready to think about college or simply needed a break.

4. **Refusal.** Students who could not accept the stigma of community college fell into this category. They were not willing to go to a 2-year college and had no other options—many had not made grades that would make other options possible.

Based on Holland's (2015) findings, it is important that school counselors introduce postsecondary school options early for students. Technical schools, community colleges/2-year colleges, and 4-year institutions are all necessary options for a wide range of students. The earlier in life students have exposure to these options, the better. Thus, we advocate for introducing a broad, college-going culture that embraces many options in elementary schools and keeping these options open for students throughout their P–12 experience.

Further, helping students understand the benefits of 2-year colleges may be helpful. Some of these benefits, according to an analysis by Wood and Harrison (2014), included availability of financial aid, job placement record, less rigorous admission policies, and a greater likelihood of accepting college credit earned in high school. Some helpful ways to promote these connections may be to have question-and-answer panels, guest speakers, or to allow students to interview individuals with careers of interest that received ASs from 2-year colleges. See Exhibit 2.1 for an interview conducted with a radiological technician with an AS—this interview provides an example of the type of information students could learn through such an activity.

### EXHIBIT 2.1
An Interview With a Radiological Technician

**JC:** Could you tell me a little bit about how you chose to become a radiological technician?

**Patricia:** Actually, I thought I wanted to be a nurse, but I applied for a nursing program and didn't get in. I wasn't sure what to do. I had a friend who was an x-ray tech and he asked his supervisor if I could shadow him at work one day. After doing that I thought, this seemed like a good alternative. Growing up
As previously mentioned, many states have begun to align workforce development needs with secondary certificate and technical education offerings. School counselors should refer to the training credentials offered through their district and the paths offered to students when advising students in their particular schools. Another great resource for informing students about potential careers where they may wish to pursue IRCs or ASSs is through conversations with professionals in the field. 

**EXHIBIT 2.1 (continued)**

I had only heard of doctors and nurses. I literally had never heard the term radiological technician.

**JC:** So what degree do you hold?

**Patricia:** My degree is an Associate’s degree. An Associate of Science.

**JC:** How long did it take you to complete your degree?

**Patricia:** 2 years.

**JC:** Could you tell me a little about what types of things radiological technicians do?

**Patricia:** I have had three different jobs in 12 years. I started out in x-ray but was only there for a year. Then I was doing bone density scans and stayed there for 5 years. I really enjoyed that. I have been doing mammograms for the last 6 years and I love it.

**JC:** What did you like or not like about each of those?

**Patricia:** Well, in x-ray there is a lot of trauma, like car wrecks, gun shots, severe injuries, and I felt really anxious a lot. I don’t think trauma work is the best place for me. I have seen some people who are very good at doing that and seem really calm. I felt very worried and anxious and had a hard time leaving work at work because I would worry about each person. I liked doing bone density because I could do a lot of education with patients and talk about nutrition and preventing bone loss. I felt like I made an impact. But mammogram is my favorite. I think it is life changing. Women’s health matters. This is my calling. Many women come in to get their checkup and they are worried because they have a family history or because they don’t know what to expect and I get to talk about their fears, their worries, but also to talk about prevention and how to do their monthly self-exams. I know I am making a difference.

**JC:** Thinking back on your radiological technician degree, would you choose to do anything differently now?

**Patricia:** No, I am so glad I found this job! I can also do MRIs if I want. There really are so many options. I think it’s one of the best kept secrets in the health field. Everyone knows about doctors and nurses but what I do is great, I work amazing hours, and I feel I am paid well. I wouldn’t change a thing about this.
is CareerOneStop. The CareerOneStop website (careeronestop.org), sponsored by the U.S. Department of Labor, provides key information on occupations in technical and labor fields. Information on this website is current and quite rich, including fastest growing occupations, occupations with declining employments, employment trends based on growth rates and earnings by region, and occupations by required education level. The website also includes information about certifications available by occupation and certifying agency. More advanced search options include exploring occupations by selected criteria, such as education level, state and national wages, and career videos (useful for career exploration activities with students).

O*Net is another great resource. O*Net (onetonline.org), sponsored by the U.S. Department of Labor, provides a wealth of information about careers including a summary or description of the work, tools and technology, knowledge, skills, ability, work activities, and work context. Other information includes the job zone for each career that provides related careers and the amount of preparation needed (degree, related and on-the-job experience). O*Net also provides the Holland codes associated with the career, work values, and related occupations.

RESOURCES TO FACILITATE COLLEGE DECISION MAKING

School counselors play a critical role in creating a college-going culture in their schools. Through developing a core counseling curriculum that prepares students for careers and college, providing academic and college counseling, and coordinating and collaborating to provide large scale events such as college fairs and college tours, school counselors facilitate students’ career and college exploration and decision making. Following are some key resources school counselors may access to assist students in considering the value, cost, and institutional quality of colleges in the United States. Although there are myriad resources for school counselors to use in assisting students in making postsecondary decisions, we are limited in this chapter in the breadth, depth, and scope of resources we can provide. Therefore, we highlight a few online resources that capture key elements of college decision-making information.

The College Scorecard

The College Scorecard (collegescorecard.ed.gov), a website hosted by the U.S. Department of Education, allows students and their parents to compare 2-year and 4-year institutions based on a variety of data. The intention of the website is to increase institutional accountability by benchmarking information about a specific institution compared to the national average so that families might determine the value of an education at a particular school. This practice also holds higher education programs and institutions to a high degree of accountability in their reporting and in their service and program quality. The data reported includes: programs, regions/geographical location, institution size, and type of institution (public, private, private for profit, religious affiliation) or those with a specialized mission (i.e., historically Black colleges and
universities [HBCU], women only). Students can enter their search criteria in an easy-to-navigate site, and they are immediately given options for institutions that came up meeting their criteria. Information on the scorecard includes (a) current number of attendees, (b) annual average cost of attendance compared to national average for similar degrees, (c) graduation rate compared to national average, and (4) salary after attending compared to national average.

The Net Price Calculator Center
The U.S. Department of Education (https://collegecost.ed.gov/netpricecenter.aspx) links students to potential colleges and universities where they answer a series of questions to determine the total net price they would pay annually for their degree. Questions pertain to potentially qualifying for grants and scholarships (based on GPA, ACT and SAT scores), parents’ and students’ income, parents’ assets, and state of residency. The projected tuition, fees, and living expenses are projected for each individual based on the information the student provides.

College Navigator
The College Navigator (nces.ed.gov/collegenavigator) allows students and families to compare similar programs and colleges using a search engine through the NCES. Options include choosing specific schools to search or choosing a state, programs/majors, level of award/degree, and type of institution. From there, the College Navigator provides information on the identified college(s) including general information, tuition, fees, and estimated student expenses; financial aid, net price, enrollment, admissions, retention and graduation rates, programs/majors, service members and veterans, accreditation, campus security, and cohort default rates. The College Navigator allows students and their families to look at colleges and universities by viewing the same benchmark data across all institutions to compare and contrast resources, finances, and other measures of quality.

Financial Aid Shopping Sheet
The Financial Aid Shopping Sheet is hosted by the U.S. Department of Education (2016). The sheet is a tool that provides potential students with a template for viewing financial packages and expenses at higher education institutions so that they can make informed decisions based on comparable data. The tool allows students to compare costs and financial aid packages for programs and services.

College Signing Day
College Signing Day is a milestone event and a time when students across the country, as part of Michelle Obama’s Reach Higher initiative, participate in acknowledging that after leaving high school they are committing to taking another step on their educational journey: postsecondary education. This should be an exciting time for school counselors, teachers, parents, students,
families, and communities. College Signing Day can be done without a lot of expense by procuring donations ahead of time for snacks, setting up a photo booth, having lots of music, and, of course, asking students to wear their college colors! Ask teachers, community partners, volunteers, family members, and administrators to wear shirts from their alma maters or a local college or university. Reach Higher provides a free downloadable College Signing Day Kit, including the College Signing Pocket Card (ReachHigher.gov). Most importantly, school counselors may share this important activity with the media so that a culture continues to build as students in lower grades see the prominence of College Signing Day and the community sees the positive celebration happening at your school!

FINAL THOUGHTS

Although many resources exist that school counselors may access to promote college exploration and decision making, the most important asset for promoting college readiness is a comprehensive, developmental school counseling program that integrates the ASCA Mindsets and Behaviors (2014; see Appendix C). It is the intentional programming in classrooms, individual advisement, and dissemination of career and college information via parent workshops and faculty in-service that will foster a culture of planning for future success. So how does daily career and college planning, as part of the whole school curriculum, actually look? How do students experience school culture in this regard? Exhibit 2.2 contains one graduate student’s reflection on her high school experience where career and college exploration and preparation were key components of the daily curriculum.

EXHIBIT 2.2
Voices From the Field: A Graduate Student’s Reflection on Comprehensive Career and College Exploration

Samantha J. Latham
Alumna, Legacy High School

Attending a high school in a middle class neighborhood that continuously scored high on academic rankings naturally gave me access to career and college readiness opportunities. I had access to bountiful AP courses and honors classes, and a team of five school counselors, one of whom had continued her education to earn a certification in college counseling.

Moreover, I was in a program unique to my high school called Legacy 2000 (L2K), which focused on the intangible and tangible skills needed for career success. Dedicated to science, math, and technology careers, this 4-year program extensively developed the skills for presentations, teamwork and collaboration, research, and writing at a college level, as well as career exploration. Beginning on the first day of our freshmen year we had to present a
90-second speech and our development continued all the way through all 4 years, culminating with our final 30-minute senior speech. We completed countless research papers, presentations, and projects that pushed us out of our comfort zones and helped us develop our confidence to succeed in future careers and through the rigorous demands of college.

With an emphasis on career and college exploration, L2K provided numerous opportunities for students to discover what we wanted out of both our future education and work. A college study project was assigned once in freshmen year and again junior year. We had to research and present on at least three different colleges, one of which had to be out of state. Perhaps the most significant part of this project was that we had to contact students at the colleges and interview them about their experience and the different traditions and opportunities their college provided. This would be the first of many opportunities in which we began to develop our networking skills.

The cornerstones of the program are the 20-hour job shadow and 40-hour internship project completed junior and senior year, respectively. The teachers did not set up the different job shadow experiences so it was incumbent upon the students to capitalize on their social networks and interpersonal skills to find a professional to shadow. I was very much interested in medicine and, for my job shadow, I was able to follow an occupational medicine doctor who patiently took the time to explain every aspect of her job to me. For my senior year, I contacted one of the head surgeons at the local city hospital. After explaining my project and why I was interested in surgery, she graciously allowed me to shadow her and her residents for 2 months and I was able to observe numerous surgeries and patient consults.

My job shadow experience with the occupational medicine doctor demonstrated to me the importance of quality patient interaction and how crucial it is to really listen to the patient. Furthermore, my experience at the hospital with the surgical residents provided me with a firsthand account of what life was really like in residency and to witness the competitive, stressful nature of that work environment. I enjoyed being in the operating room and observing the various surgeries, but I did not enjoy what I perceived as the competitive nature of the residency and how that overshadowed the patient interactions. Consequently, both experiences contributed to my decision to not pursue surgery.

Nonetheless, if I had never had that opportunity to shadow different medical professionals, I probably would not have made the decision to switch career paths until much later, perhaps causing me to miss the inspiring opportunities I have now. Moreover, if I had never been pushed to search for out of state schools early on in my high school career, I may not have had the confidence to attend a university in a state where I did not know a single soul. Not only did this program instill a sense of career confidence, it provided opportunities for us to develop the crucial skills of time management, presentation styles, teamwork, and writing that undoubtedly contributed to success in other areas beyond the confines of the program.
SUMMARY

Deil-Amen and Tevis (2010) noted a complication of college-bound research: Although more students than ever aspire to attend college, have exposure and access to college, and enroll in college, we know very little about what happens from enrollment to college graduation. What high school factors might help us better predict college persistence, retention, and matriculation? Based on the work of Engberg and Wolniak (2010) and others, the acquisition of career and college readiness capital in high school contexts pays large dividends in the college setting. School counselors help students gain college readiness capital through promoting access to college, by exposing students to career and college exploration, providing resources, and assisting students in considering their full range of postsecondary options. The options available to students are vast, from IRGs to doctoral degrees, and school counselors need to be knowledgeable about what is available for their students and how to help students and their families navigate the college decision-making process. Indeed, in many cases, the school counselor may be the only person with the knowledge and resources to help students do this critical, life-changing work. We explore this relationship throughout this book and encourage school counselors to conceptualize their role as a creator of career and college readiness capital.

Test Your Knowledge

1. Name and describe two different types of bridge programs.
2. Give an example of an online resource that allows students and their families to accurately estimate the cost of 1 year of college tuition, including fees, books, and living expenses.
3. Describe three things a school counselor can do to promote a college-going culture.

REFERENCES


TEN

Career and College Readiness for Grades 6 and 7: Promoting Self-Awareness

Adolescence was described by Hall (1904) as a time of storm and stress, a description that underscores the turbulent nature of vast changes experienced by youth in the transition from childhood to adulthood. Yet, Hindley (1983) asserted that much of the turmoil of the adolescent experience depends on prior learning, support, and environmental factors that either promote or inhibit an individual’s ability to cope with the stressors brought about by growth, change, and development in the adolescent years. The ambiguity of adolescence—balancing the desires of childhood with the impending responsibilities of being an adult—helps to make adolescence an ideal time for exploration, contemplation, and hope for many life possibilities. Equally important, recent research suggests middle school may hold much of the key to future college success. Of note, Gaertner and McClarty (2015), using the National Educational Longitudinal Study (NELS) database, found that 69% of the variance in college readiness could be explained with middle school factors, with the most important two being motivation and behavior. School counselors play a critical role in fostering the positive development of both of these middle school factors. In this chapter we review developmental concepts, career theory, counseling curriculum, and the involvement of stakeholders in career and college readiness interventions for sixth- and seventh-grade students.

DEVELOPMENTAL OVERVIEW

Although there are notable patterns of development in adolescence, it is an incredibly complex period of growth (Hindley, 1983). In this section, we cover major changes in physical, cognitive, psychosocial, social, and cultural development in the adolescent years. As always, we caution readers to be aware that each student is unique and that characteristics and patterns discussed here may not apply to every individual.

Physical Development

Adolescence is a time of unparalleled physical changes, including the development of primary and secondary sexual characteristics, growth spurts (e.g., musculoskeletal changes, changes in body proportions, and strength),
physical coordination, hormonal and neurochemical changes, motor skills, and mechanical abilities (Ausubel, 1954). Most importantly, as noted in Chapter 9, these physical changes are important when considering career and college readiness and development as they may have a lasting impact on self-concept based on body image and evaluations of self from a social perspective. The impact on self-concept may be particularly salient during adolescence given the social capital credited to individuals based on physical attributes. An example given by Crow and Crow (1965) is that males who attained greater height and strength compared to their peers experienced greater social prestige (popularity) and personal adjustment.

Another important consideration for future career and college readiness is the effects of hormones and physical changes that influence personality, temperament, and other aspects of personal expression (e.g., self-consciousness). An example of this was noted by the first author during her work as a middle school counselor helping a seventh-grade male with anger management concerns. The student stated, “Nothing’s really different at home or school, it’s just me, I suddenly started feeling angry all the time.” Although the anger experienced by the student may have been due to a variety of potential factors, the anger might have also been brought about by the introduction of increased hormones, such as testosterone, that were disrupting the student’s normal affective responses to stressors.

As mentioned in Chapter 9, students learn to regulate their emotions and behaviors by gaining self-control. Doing so might be difficult for students in early adolescence, especially because they are going through a great magnitude of change that impacts every aspect of their lives, from sleep patterns to social interactions. Emotional self-regulation and the ability to express oneself appropriately is part of the preparation adolescents must have for the world of work, and this can be a challenging task as they undergo dramatic physical changes.

Cognitive Development

According to Crow and Crow (1965), numerous characteristics emerge in adolescence that create the composite of intelligence and are considered markers of mental maturation: verbal comprehension, word fluency, mathematical abilities, spatial relations, memory, perceptual abilities, and reasoning. During adolescence, successful students demonstrate the ability to adapt to the demands of the educational environment by developing skills to concentrate, utilize imagination and creativity, memorize, and solve problems (Crow & Crow, 1965). Piaget (1969) maintained that there are multiple intellectual transformations with salient characteristics in the stage of formal abstract thought, which begins around the age of 11 or 12 and reaches equilibrium around the age of 14 or 15. These characteristics include the ability to (a) manipulate thoughts rather than just objects, (b) project into the future (e.g., understand long-term consequences of behavior), (c) formally reason based on a hypothesis, propositional operations (based on logic), reversibility by inversion, or reciprocity (e.g., algebraic equations), (d) synthesize information, and (e) generate experimentally formulated hypotheses.
Hindley (1983) acknowledged that major changes in cognitive functioning have implications for how individuals conceptualize the world and social concerns as well as how moral thought, reasoning, and behavior are manifested. For example, the ability to empathize with others, demonstrate compassion, and develop altruistic thoughts and behavior are largely based on cognitive development (Eisenberg, Miller, Shell, McAlley, & Shea, 1991). In this way, social maturation and development of positive interpersonal relationships are related to cognitive development. Further, the development of these cognitive skills helps sixth- and seventh-grade students apply logic and reasoning to how they conceptualize careers, understand college options, and project future actions necessary for workplace success.

Psychosocial Development

According to Erikson (1963), students entering adolescence are transitioning from the stage of industry versus inferiority to the stage of identity versus role confusion. Many things go into identity formation, including a sense of awareness about one’s interests, strengths, weaknesses, and beliefs. The identity versus role confusion stage can be a difficult time for students and their families as adolescents may begin to differentiate from the views and beliefs of their families, which may cause strain on the family system (Bowen, 1976). According to Bowen, when students have low differentiation from their family of origin, they are overly dependent on their family members’ acceptance of their choices and, therefore, have difficulty making decisions based on their individual preferences, thoughts, and beliefs. During the identity versus role confusion stage, students also begin to view themselves through a third-party perspective and begin to evaluate their social status and capital (Bourdieu, 1977) based on their social interactions with others. Low social capital and status can injure young adolescents’ self-concept as their perceived weakness, low status, and lack of popularity may become predominant in their view of self.

Havighurst (1972) expanded on Erikson’s theory and reported that the stage of identity versus role confusion is a very active time for youth and has specific challenges that include planning for one’s future. This planning requires an understanding of oneself, one’s future goals, and the consequences of behavior as it applies to the future. Further, based on Havighurst’s research (1972), conceptualization and positive identity formation in adolescence is dependent on the following tasks:

- Achieving new and more mature relations with age mates of both sexes
- Achieving a masculine or feminine social role
- Accepting one’s physique and using the body effectively
- Achieving emotional independence from parents and other adults
- Preparing for intimate relationships and family life
- Preparing for an economic career
- Acquiring a set of values and an ethical system as a guide to behavior—developing an ideology
- Desiring and achieving socially responsible behavior
Students may vary in the amount of time it takes to master the tasks suggested by Havighurst, as individual development and system supports both play significant roles in how adolescents navigate these tasks.

Other theorists also have contributed to an expanded understanding of Erikson’s stage of identity versus role confusion. Specifically, Marcia (1987) proposed identity statuses to describe how individuals explore the possibilities of their adult lives, including their future careers. Marcia (1987) concluded that there are two major tasks that comprise the achievement of identity: (a) actively exploring future options and (b) committing to an identity. Marcia identified four identity statuses that comprise the relationship between these two tasks.

The first identity status is identity diffusion, where adolescents neither have explored future options nor committed to an identity. Adolescents in this status often seem withdrawn, resigned, and unmotivated; they are without a plan, and may seem as though they are drifting through life with no future goals. The second identity status is identity foreclosure. In this status, adolescents have committed to an identity, but did so without exploration, which may result in unhappiness later in life. For example, a school counselor asked a middle school student what type of career she was interested in exploring. The student said, “I think I’ll be an orthodontist like my dad.” Her dad then interrupted and said, “It would be crazy for her to do anything else. I am an orthodontist, my father was an orthodontist. She can be one and inherit our practice.” Although the student may be happy with other possible future careers, she has committed to being an orthodontist before taking the time to explore other options. The third status Marcia (1987) proposed is moratorium. In this status, students are actively exploring options but have not committed to a career. This is an ideal status for sixth and seventh graders as they might be thinking critically about their future and keeping their options open. The fourth status, identity achievement, occurs after students have fully and critically considered their future options and then committed to an identity.

Beyond the stage of identity versus role confusion (Erikson, 1963), other social and emotional changes begin to occur in early adolescence. According to Crow and Crow (1965), changes to adolescent physical and cognitive development lead to greater ability to understand self and personal feelings, and adolescents are more expressive of a wide range of emotions including anxiety, worry, jealousy, and fear. Adolescents also may appear to be moody; for example, students who have been previously happy and well adjusted may seem melancholic or display a lack of interest in other people and activities. It is important for middle school counselors to recognize emotional reactivity and heightened behavioral changes that accompany the physical maturation of adolescents and how it may become problematic in the classroom. Helping adolescents to develop self-control and other self-regulatory behaviors rather than having emotional outbursts is important for their future workplace success.

As adolescents begin to develop a sense of understanding about others and relationships with others, they may become more open to self-exploration and defining “who am I” (Hindley, 1983, p. 40). Indeed, the ability to understand other people and to understand others’ perspectives helps students become more aware of their own interests, dispositions, and aptitudes related to careers and college.
Gender/Culture

Havighurst (1972) proposed that many developmental tasks, such as sexual maturation, occur across cultures; however, he also noted that many developmental tasks are culture specific. Yet Havighurst (1972) pointed out that the complexity of career growth and development is based on social expectation and opportunity. For example, in more primitive and agrarian societies, youth might only have one career option (farming). Within the contemporary U.S. culture, there are myriad differences based on community and environmental factors for what is expected of adolescents. Likewise, tremendous variations in the opportunities perceived to be available by youth exist.

Most importantly, in middle school, students generally want to fit in and feel accepted. However, during this time, cultural differences (e.g., being Muslim in a primarily Christian community) and individual differences (e.g., sexual orientation or gender expression, disability) may cause students to stand out and gain negative attention from peers. Helping students feel comfortable with who they are and encouraging students to be welcoming of diversity are critical to their future career development as they will need to work successfully with others different from themselves (American School Counselor Association [ASCA], 2014).


A focus on career development is crucial in early adolescence. As noted by Ausubel (1954), although each adolescent may have an “apparent preoccupation with the immediate and often esoteric activities of his interim peer culture, the adolescent’s primary goals are really predicated upon inclusion in the adult world” (p. 437). Ausubel (1954) contended that as adolescents develop formal abstract thought and patterns of thinking about issues with greater complexity and depth, they develop an initial understanding of the dynamic relationship between career choice and multiple factors such as personal economic needs, social status (prestige) of specific occupations, special talents and abilities, perceived intelligence, interests, and economic urgency (i.e., financial considerations of college or technical training versus immediate income). Interest, motivation, and maturity also become largely influential in early adolescents’ career aspirations and expectancies. Therefore, previous aspirations may not be stable over time (Ausubel, 1954), as many emerging factors substantially persuade the individual’s career choices. Most importantly, career and college readiness in early adolescence is largely influenced by self-concept and an awareness of one’s own interests, abilities, values, and aptitudes. In short, knowing oneself is the key to early adolescent career growth. In this section, we review theories that speak specifically to the career needs of early adolescents.

Gottfredson’s Theory of Circumscription and Compromise

Similar to students in fourth and fifth grades, students in grades 6 and 7 are most likely in Gottfredson’s career development Stage 3: Orientation to Social Valuation.
As stated in Chapter 9, students in this stage begin to consider which careers are within or outside of their tolerable level boundary. In other words, students will circumscribe careers that are, in their evaluation, either socially beneath or socially above them. Adolescents also may have heightened preoccupation with status and status symbols, a developmental milestone of understanding their own social capital and positionality. This can be exemplified in daily activities at school (e.g., students paying attention to the brand names of each other’s clothing).

Although a focus on material things may seem unrelated to career development, this focus is a sign that students are considering the social value of things and people—a definitive measure that they are entrenched in Gottfredson’s Stage 3. The important thing for school counselors to remember is that students in the stage of orientation to social valuation need opportunities to challenge, through exploration, their tolerable level boundary. In other words, career exploration may decrease self-circumscription of career and college options. It is important to remember that students circumscribe college choice as well, which often leads to over- and undermatching as their choices are made based on perceptions of what is tolerable rather than on aspirations that relate to their true abilities.

Holland’s Theory of Vocational Choice

Holland’s career theory (1973, 1997), known as Theory of Types, encompasses six different categories that represent individuals’ self-perceived competencies and interests. The six types created by Holland (1973) are an amalgamation of the interaction among a person’s heredity (or biological traits), interests, self-perceived competencies, and dispositions (personality traits, sensitivity to environmental influences, values, perceptions of self and world, and self-concept). Holland himself acknowledged that many factors influence the expression of a person’s type: ethnicity, race, religion, sexual orientation, socioeconomic status (SES), and more. Therefore, the types provide a guide, not absolutes, for career exploration.

As mentioned in Chapter 1, the six Holland types are: realistic, investigative, artistic, social, enterprising, and conventional. A description of the six different Holland types can be found in Table 10.1. By having students complete one of Holland’s assessments (e.g., the self-directed search [SDS]; see Chapter 5), school counselors can help students narrow down career exploration to sets of careers that may fit them as individuals.

Because Holland’s theory begins with an assessment of a person’s interests and aptitudes, it is ideal for middle school students because they love learning about themselves. Moreover, Holland’s theory is very useful in helping students to critique how they might enjoy certain work environments and daily tasks. As noted by Sharf (2006), most individuals will have more than one Holland type (generally a combination of up to three); this may be particularly true for individuals exposed to a variety of environments and activities (e.g., extracurricular activities, hobbies, athletics, and travel).

In a study of middle school students, Turner, Conkel, Starkey, and Landgraf (2010) found that males tended to have greater realistic interests and females
had greater artistic and social interests. More gender differences emerged in the study, including females capitalizing on their skills and abilities and more actively preparing for their future career plans than males. Males, on the other hand, were more assertive and desired to create their own career opportunities and were more apt to use instrumental, or tangible, support (i.e., assistance creating a resume). These findings suggest that continuing career exploration, increasing self-awareness, and increasing students’ perceptions of career options that are not rigidly bound by gender are critical in elementary and middle school career counseling programming.

Young’s Career Concepts

As discussed in previous chapters, Young (1983) highlighted the vital role of parents in adolescent career development. He particularly highlighted the dynamics of the parent–child relationship including: parent–child interaction, identification with parents, adolescents’ perception of parental influence, and amount of contact with parents. Because of these relationship dynamics, intentional inclusion of parents in career and postsecondary exploration is an important component of the school counselor’s career curriculum. According to Young, Paseluikho, and Valach (1997), parents need to co-construct career goals with their children through meaningful dialogue that promotes shared interests, values, and emotions.

<table>
<thead>
<tr>
<th>TABLE 10.1 Holland Types</th>
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<tr>
<td><strong>Type</strong></td>
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<tr>
<td>Realistic</td>
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<tr>
<td>Investigative</td>
</tr>
<tr>
<td>Artistic</td>
</tr>
<tr>
<td>Social</td>
</tr>
<tr>
<td>Enterprising</td>
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<tr>
<td>Conventional</td>
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Source: Adapted from Holland (1973, 1997), Jones (2011), and Niles and Harris-Bowlsbey (2009).
Young et al. (1997) contended that emotions in career conversations are demonstrative of the level of adolescent career motivation and cognitive appraisal of self (i.e., self-concept related to career). Specifically, they found that emotion in parent–adolescent career conversations promoted career action. It is presumed that this connection exists because language (in this case, conversation) provides a primary medium for adolescents to conceptualize and negotiate career goals, construct personal meanings related to career, and determine the purpose of career-related work in their lives (Young et al., 1997). When parents and adolescents are given the opportunity to participate in career- and college-related conversations as part of a deliberate and planned component of the comprehensive school counseling program, then families can support adolescents in career and college problem solving, planning, and decision making. Through such conversations, adolescents and parents can be given a chance to explore the adolescent’s feelings related to careers and college.

MIDDLE SCHOOL CAREER AND COLLEGE READINESS

As highlighted in Chapter 1, low college graduation rates have extensive personal and social costs. More importantly, the demand for college degrees is growing (Carnevale, Smith, & Strohl, 2010). Although not every student will go to college, it is important that stakeholders are aware of the skills that students need so that college can remain an option. According to the California College Board, these skills include participation in a rigorous high school curriculum and the development of skills in (a) higher order thinking, (b) studying and researching, (c) reasoning, (d) problem solving and analyzing, (e) writing, and (f) understanding career and college options, including college admissions and financing (Mijares, 2007). If these skills are important in high school, what career education and training are critical in middle school to prepare students for a rigorous high school curriculum?

Throughout this book, we propose a multisystemic approach to career and college readiness. It is important to underscore that parents, teachers, administrators, and community partners all play a vital role in the career and college development of middle school students. For example, Orthner (2012) identified benefits (including increased school engagement, higher performance on end of grade tests in math and reading, fewer unexcused absences and disciplinary referrals) among students whose teachers used CareerStart, an instructional strategy designed to help students connect academics to careers. CareerStart emphasizes a whole-school approach, including parent and community involvement, to improve school engagement and achievement. In the next section, we highlight how school counselors can address the career and college readiness needs of sixth and seventh graders through a comprehensive curriculum and a multisystems approach.

THE SCHOOL COUNSELING CURRICULUM

The school counseling career and college readiness curriculum in middle school should be centered on helping students explore their personal fit with careers and college by examining their interests, aptitudes, dispositions,
and values related to career and postsecondary options. The curriculum also ideally should help build students’ career decision-making self-efficacy (e.g., *The Career Horizons Program*; see O’Brien, Dukstein, Jackson, Tomlinson, & Kamatuka, 1999). We begin this section by including the ASCA Mindsets and Behaviors (2014) that may be particularly useful when developing the counseling curriculum for sixth- and seventh-grade students (Table 10.2). We also want to call readers’ attention to the importance of including technology and assessment in the comprehensive career and college readiness curriculum to expose students to many possible options that are personally suited for them (i.e., focus on person–environment fit). Remember, middle school students love to talk about themselves and think about who they are, and that makes developing the career and college readiness curriculum particularly fun.

### Assessment in Middle School Career and College Counseling

School counselors should use assessment to help middle school students discover the skills, aptitudes, interests, and values they hold that may impact their fit with potential careers and colleges. Although we covered various assessments in Chapter 5, we highlight a few in this section that are particularly useful in sixth- and seventh-grade classroom career and college readiness lessons. The activities we share may be helpful for promoting self-exploration and moving adolescents from diffusion and foreclosure to moratorium (Marcia, 1987), where they can actively begin to question who they are in relation to their future career and college choices.

**Values card sort.** Knowdell’s Career Values Card Sort (2005) can be used effectively with sixth- or seventh-grade students, as they are capable of understanding values they hold related to potential careers. The Knowdell Career

### Table 10.2 ASCA Mindsets and Behaviors for Sixth- and Seventh-Grade Curriculum Planning Focus

<table>
<thead>
<tr>
<th>CATEGORY 1: MINDSETS STANDARDS</th>
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<tr>
<td>Self-confidence in ability to succeed</td>
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<tr>
<td>Sense of belonging in the school environment</td>
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<tr>
<td>Understanding that postsecondary education and lifelong learning are necessary for long-term career success</td>
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<tr>
<th>CATEGORY 2: BEHAVIOR STANDARDS</th>
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<tr>
<td><strong>Learning Strategies</strong></td>
</tr>
<tr>
<td>Apply media and technology skills</td>
</tr>
<tr>
<td>Identify long- and short-term academic, career, and socioemotional goals</td>
</tr>
<tr>
<td>Gather evidence and consider multiple perspectives to make informed decisions</td>
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<tr>
<td><strong>Self-Management Skills</strong></td>
</tr>
<tr>
<td>Demonstrate ability to work independently</td>
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<tr>
<td>Demonstrate ability to overcome barriers to learning</td>
</tr>
<tr>
<td>Demonstrate personal safety skills</td>
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<tr>
<td><strong>Social Skills</strong></td>
</tr>
<tr>
<td>Create positive and supportive relationships with other students</td>
</tr>
<tr>
<td>Create relationships with adults that support success</td>
</tr>
<tr>
<td>Use effective oral and written communication skills and listening skills</td>
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Values Card Sort is a deck of cards with each card listing a value related to careers (e.g., team work, creativity, and problem solving) and an explanation of the value.

The first author, when using the values card sort activity with students, would place students in small groups seated in a circle. Each group was given one deck of cards and one student was the dealer. The dealer gave each student six cards and students were asked to place the cards in order from the thing they valued most in a future career to the thing they valued least. Then the group discussed their values and why they chose their particular card order and how the card order they chose related to careers. The Knowdell Career Values Card Sort comes with activity sheets that the students fill out as they complete the activities. The sheets gave students a chance to think about the values they chose and to reflect on their own personal preferences of values related to careers. Students were then asked to remove the card they ranked as most valuable and give it to the student sitting on their right in the circle. Then they reordered their cards to integrate the new card they just received. As a follow-up activity, the English teacher had each student write a reflection on the things he or she valued in a future career. Students reported enjoying this activity, and the discussions in the small groups were generally lively. In addition, the cards gave students a chance to broaden their career values vocabulary.

Career genogram. According to Gibson (2005, 2012), the career genogram activity is one way to have students examine the influence of their family members and other significant adults on their career choice. It also can help them identify ways that their interests may be different from those of family members; remember, according to Erikson (1963) and Bowen (1976), adolescents are exploring their own individual beliefs and values and how they resemble or differ from those held by their family of origin. If a school counselor has not facilitated a genogram activity previously, he or she can access instructions from Gibson (2005, p. 358). In addition to filling out the genogram, Gibson (2012) recommends that students be provided with questions to ask family members that will deepen their knowledge, such as: (a) What influenced family members’ career decisions? (b) Who influenced their career decisions? and (c) At what age did they decide on their career choice? To incorporate a focus on college, questions such as the following can be asked: (a) What type of education was needed for each family member’s occupation? (b) What was the highest level of education each person attained? and (c) What factors affected the educational attainment of each family member? Figure 10.1 includes an example of Ainsley’s career genogram (Ainsley is a student wishing to become a school counselor).

Based on this genogram, some questions that could be posed to Ainsley that may help her see the similarities and differences between her career choice and those of her family members include: Who in your family has a career that is similar to the career you have chosen? (In Ainsley’s case, she may choose her mother, a substitute teacher.) How is his or her career similar to the career(s) you are considering? (Both involve working with children in an education setting.) Whose career is different? (Ainsley’s father, a funeral director.) What similar characteristics or values exist between your career choice
and the career choices of your family members? (Ainsley may identify similar characteristics of kindness or compassion.) How has your family influenced your career decisions? In what ways have you chosen your own career path?

**PROMOTING STEM CAREERS IN MIDDLE SCHOOL**

As previously noted (Chapter 1), there is a growing need to fill science, technology, engineering, and mathematics (STEM) careers, and STEM careers have a high college payoff (Chapter 2); yet females, African Americans, Hispanics, Native Americans, and students from low SES homes continue to be severely underrepresented in STEM fields. Based on a study by Aschbacher, Ing, and Tsai (2014), this underrepresentation might be partly due to low interest, but is more likely due to low self-perceptions students have of their abilities related to science. Therefore, they don't aspire to science careers. Early exposure and access may help.

Beyond exposing students to options for career and college opportunities in STEM through classroom presentations, school counselors should work collaboratively with others to consider ways to promote STEM beyond the classroom and academic curriculum. For example, Lawrence and Mancuso (2012) described ways to apply for and improve chances of getting funded for a small grant to develop a Girls Excited about Engineering, Mathematics, and Computer Science (GE2McS) program at your school. The program combines two 1 hour, hands-on workshops for students, a discussion of gender issues for counselors and teachers, and a student and career panel. Lawrence and Mancuso described the type of workshops that should be offered, how to design interesting panels, sample agendas, where to apply for funding, and ways to improve efficiency in delivering the program such as partnering with your local high school.
An out-of-school program, known as Lang Science, at the American Museum of Natural History promotes science identities for students from underrepresented groups in science fields (i.e., women, African Americans). This program is competitive, and students commit to being in the program from sixth grade through high school graduation. The program includes meetings every other Saturday during the school year and 3 weeks in the summer for a total of 165 contact hours per year (Adams, Gupta, & Cotumaccio, 2014). In a qualitative study, conducted by Adams et al., alumnae of the Lang Science program disclosed numerous benefits of the program that had impacted their science identities beyond the program in their postsecondary lives. Themes from the study included that the Lang Science program had (a) given the participants a collective identity by connecting them with a group of peers with similar interests and future goals where they didn’t feel weird or different for their science interests; (b) created a sense of belonging in the physical place and ownership of the museum as participants had IDs with access to non-public spaces, were invited to social events at the museum, met with museum personnel, and were physically present at the museum frequently; (c) increased participants’ understanding of the range of science careers beyond stereotypes (e.g., labs) through broad exposure; and (d) helped increase persistence in science, in spite of the participants not finding supportive environments in their postsecondary science pursuits.

Although school counselors cannot make every STEM opportunity available to students, making an effort to add cocurricular or extracurricular activities available is important. Please see Exhibit 10.1 for a science educator’s explanation of how science identity may be fostered. Exhibit 10.2 highlights a school counselor who discusses how she supports students’ STEM career interest through her role with the SeaPerch underwater robotics competition.

**EXHIBIT 10.1**

Voices From the Field: Fostering Science Identities in Middle School Students

Angela W. Webb, PhD
Science Educator, Louisiana State University, School of Education

STEM may seem inaccessible to students for a variety of reasons. After all, they receive implicit and explicit messages about what science is (and is not) and who can (and should) do it from myriad sources, ranging from family and friends to school and the media to religious leaders. Students take these messages to heart, which may have implications for their affiliation with science and their developing science identities. In fact, as early as elementary school, students start to wonder, “Is science me?” How can we reimagine school science so their answer is yes?

(continued)
Robust in- and out-of-school programs focused on engaging students with STEM concepts and practices in authentic ways are needed to broaden the meanings of science and science persons with which students engage. SeaPerch (http://www.seaperch.org/index), which is sponsored by the Office of Naval Research, is one such context. Promoted as an “innovative underwater robotics program,” SeaPerch “provides students with the opportunity to learn about robotics, engineering, science, and mathematics (STEM) while building an underwater remotely operated vehicle (ROV) as part of a science and engineering technology curriculum” (SeaPerch website). A wealth of STEM concepts are addressed through students’ work on their SeaPerch ROV. As outlined on the SeaPerch website, these concepts include engineering design; buoyancy and displacement; propulsion; vectors; electricity, circuits, and switches; ergonomics; depth measurement; biological sampling; attenuation of light; and the physics of motion.

Although connections to relevant STEM careers are also drawn in the SeaPerch curriculum, it is students’ engagement in the authentic practices of science that most affects their developing science identities. For students to see themselves as scientists, they must engage in the practices of scientists. Through SeaPerch, students are afforded opportunities to (a) ask scientific questions and define engineering problems related to their ROV and STEM concepts; (b) develop and use models pertaining to the construction and use of their ROV, and extend these ideas to ship and submarine construction; (c) plan and carry out investigations, and analyze and interpret data for variables such as buoyancy, control, speed, and friction of their ROV; (d) use mathematics and computational thinking to design, build, and fine-tune their ROV; (e) construct explanations of science concepts and design solutions for engineering problems, basing each in evidence; and (f) obtain, evaluate, and communicate information from trials and investigations of their ROV. (Please see the Next Generation Science Standards for more on the science and engineering practices.) These vast opportunities to engage with their SeaPerch ROV as scientists expose students to broad and accessible meanings of science and science person—opening up robust spaces for students to affiliate, and thus identify, with science. In this context, science becomes less about memorizing isolated facts (a narrow and often unappealing notion of science, and subsequently, science person) and more about using science concepts, laws, and theories to answer questions and solve problems (a more expansive, more accessible meaning of science, and subsequently, science person).

Liking science and affiliating (i.e., identifying) with science are not synonymous, and just liking science is an inadequate predictor of whether students will pursue postsecondary studies in STEM or STEM-related careers. To improve students’ career and college readiness around STEM, we need to extend our notions of successful school science beyond students’ acquisition of science-related knowledge and skills to include their science identities as well.
EXHIBIT 10.2
Voices From the Field: The School Counselor’s Role in Promoting STEM Careers and College Readiness

D’Jalon J. Jackson, PhD
Middle School Counselor, Kenilworth Science and Technology Charter School

Being employed as a school counselor at a STEM-focused, public charter school for middle school students provided a unique opportunity to actively address the vital need for STEM exploration. The student body I served was comprised of over 98% African American/Black or Hispanic students, the majority of whom qualified for free or reduced-price lunch. This demographic makeup further accentuated my responsibility as a school counselor to champion the integral infusion of STEM initiatives into a learning environment that catered to a population otherwise unlikely to pursue STEM careers due to lack of early access and exposure.

Fortunately, at this particular charter school, STEM exploration is built into the learning environment in myriad ways, including through curriculum. For example, each student is required to create a criteria-driven scientific demonstration that contains the appropriate level of difficulty respective to their grade level. These demonstrations range from simple chemistry experiments to complex physics and robotics projects and could potentially qualify students to participate in regional, national, and international science fairs. Along with engaging in curriculum that highlights STEM, the opportunity to participate in cocurricular school and after-school STEM activities is also provided to all students. It was during the preparation process surrounding these activities that I was able to support my students through my role as a school counselor. As students prepared for various competitions, such as our science fair and SeaPerch (see Exhibit 10.1), I provided them with feedback concerning visual aids (posters) and assisted them with their oral presentation skills to ensure clarity and conciseness. I also posed inquiries that could potentially surface from competition judges concerning their demonstrations and thought processes. Although I was not teaching them science content, I was promoting their critical thinking and problem-solving skills.

Ultimately, I contributed to their career and college readiness as it related to STEM awareness by aiding in the honing of their oral and written communication skills as well as evoking higher order thinking through the presentation of knowledge synthesized to adequately address scientific inquiry. Thus, from my personal experience, exposure to STEM fields, through my career and college presentations in classrooms, as well as my individual work preparing students for competition, like our science fairs and SeaPerch, has better equipped students for success in STEM careers and postsecondary education. More than that, I believe our students have had the experience of being in the role of scientists while still in middle school, and this enables them to envision, very realistically, their ability to be a scientist in the future.
ENGAGING STAKEHOLDERS

Johnson (2000) reported results of a study conducted with sixth- and ninth-grade students. Only about half of the students in the study could identify a skill needed for career success. More alarming, approximately 88% of the participants “reflected little or no awareness of how the skills, knowledge, or attitudes learned in the subject course work might relate to future employment” (Johnson, 2000, p. 269). However, Johnson (2000) also reported that sixth-grade students found schoolwork more useful to their careers than did ninth-grade students, an indication, according to Johnson, of students’ feelings of increasing discontentment with their school experience between the sixth- and ninth-grade years. Therefore, sixth- and seventh-grade teachers have an important task in keeping students engaged in academics and connecting academics to career. Indeed, nearly every middle school teacher and counselor has heard students say about various content, “Why do I have to learn this? I’m never going to use it!” This feeling that the information being learned is not useful or applicable to students’ lives may leave students feeling disengaged, frustrated, and unmotivated to learn. The CareerStart (Orthner, 2012) program is one evidence-based approach to help students feel more engaged in school. Lesson plans and suggested activities are provided, but teachers are encouraged to scaffold lessons to cater to their specific populations. Using a quasi-experimental design, Orthner, Jones-Sanpei, Akos, and Rose (2013) divided middle school students into experimental and control conditions. Using the CareerStart program, but controlling for prior school engagement, socioeconomic, and academic factors, the researchers found that the students in the experimental group who participated in the CareerStart program had significantly higher levels of school valuing and school engagement after being given career relevant instruction in their academic classes.

Teachers

Middle school teachers have the opportunity to engage middle school students in learning. Curry, Belser, and Binns (2013) highlighted numerous ways that middle school teachers can integrate career-related information in the education curriculum. For example, a middle school counselor, Mr. Braxton, met with all seventh-grade math teachers at Rock Creek Middle School. He explained that he would be introducing students to math careers every quarter in their math class and that he would like to coordinate this with the seventh-grade math teachers. Each quarter, the math teachers and Mr. Braxton met to discuss what types of math activities were being covered and how these might relate to careers. One example occurred after a unit on measurements (i.e., mass, volume, perimeter, and circumference). Mr. Braxton and the seventh-grade math teachers completed a lesson on careers where math measurements were used (e.g., chemist, engineer, construction worker, and architect). Students were then given an opportunity to discuss in small groups what they found challenging or interesting about the math skills learned in the unit and which,
if any, of the related careers were of interest to them. Mr. Braxton did this with every math class each quarter and teachers reported that students seemed to take a greater interest in learning math skills as a result.

Moreover, there may be some evidence that career knowledge and maturity may result in positive student outcomes. For example, Legum and Hoare (2004) conducted a study with urban, at-risk middle school students. They divided the participants into control and experimental groups. Participants in the experimental group received a 9-week career intervention program that linked academics to careers; the control group received no intervention. At the end of the study there were no major statistical findings between the control and experimental groups in academic outcomes, but several qualitative changes were reported. Teachers were interviewed at the completion of the groups, and they identified positive changes in the students attending the experimental group at the end of the study including gains in self-esteem, academic achievement, academic motivation, participation in class, and more willingness to attempt class work. Teachers did not notice similar changes in the control group (Legum & Hoare, 2004). This study only lasted 9 weeks; therefore, what is not known is whether or not a longer and more systematic intervention would have a definitive and significant academic impact.

The major consideration based on Legum and Hoare’s (2004) study is that career exploration may help students to feel more engaged in the educational agenda of middle school (motivation, willingness to attempt class work, and classroom participation), making career curriculum integration a worthwhile task for teachers. Further, there are many ways to include teachers, and it is most important to point out that much of the career and college readiness curriculum infusion does not require large amounts of time from teachers. Often, short quantities of time devoted to career and college (when done with frequency and consistency over time) may be effective. In Exhibit 10.3 we share an example of how a school counselor worked with teachers to provide a brief but consistent activity that promoted a college-going culture.

Other interventions that do not require significant use of class time may also be considered. Rinke, Arsenie, and Bell (2012) reported results of a study based on collaboration between college students and an urban middle school. The college students (undergraduate students in a teacher education program) hosted an after school program for 1 week where they helped urban middle school students develop personal and professional artifacts (artistic pieces and career projects) that showcased their future lives. They presented these to friends and families. Two weeks later, the middle school students and their faculty visited the partner college for a tour. Results of the study showed that college students who participated reported feeling more inclined to work with urban students and noted that working with the middle school students was the most meaningful aspect of the project. The middle school students in the study demonstrated increased confidence and perseverance for college (Rinke et al., 2012).

Another out-of-classroom experience is the summer program. Summer programs that promote the middle school to college pipeline, such as the Pathways Partnership, have been successful in terms of students’ future aspirations without taking significant time from the classroom academic core (Ng, Wolf-Wendel, &
Lombardi, 2014). However, even without removing time from the classroom, programs like the Pathways Partnership often offer a teacher in-service component to assist teachers in bridging information on career and college in the classroom. This is an important model to follow as the school counselor must utilize all stakeholders to help, and even minor classroom integration of career and college curriculum sends a clear message that it is important.

Specific recommendations for teachers were made by Radcliffe and Bos (2013). They suggested that teachers could do some of the following to promote career and college readiness in conjunction with the school counselor: (a) have students create digital stories about their future careers and the preparation needed, (b) visit campuses and journal during the visits in a writing marathon approach, (c) create opportunities for academic tutoring, (d) have college students give presentations, and (e) have projects that include collaborations with college students if possible. School counselors and teachers will need to determine where in the curriculum these activities make the most sense.

Parents

Hall (2003) described the nuanced and complicated relationship between individuals’ families and their career choices. One major factor creating this dynamic is that students who choose careers that are out of their family’s perceived level of prestige (aiming too high or too low based on the perception of family members) are at emotional risk. In other words, students may suffer emotional consequences (e.g., stated disapproval or anger from parents) for making a decision that family members do not agree with (Hall, 2003). For example, one school counselor conducted a career and college planning session with a parent and student. The student was adamant about becoming a music major and the father, an accountant, told the student that if she wanted a career in music she would have to move out and pay for college herself. The father followed up by stating that if the student chose “a real major” he would support her and pay her way through school. In this way, the father was exerting an emotional and economic sanction for his disapproval of the student’s career choice. The emotional, fiscal, cognitive, and social investments parents make in raising their children can lead them to have highly emotional reactions when discussing careers and college with their children.

As previously mentioned, Young et al. (1997) noted the importance of career communication and emotions between parents and their middle school children in developing positive career action. Usinger (2005) conducted a 5-year longitudinal, interpretive study of seventh-grade students in low-achieving schools and how they constructed their academic and career aspirations. Usinger focused on the parent/guardian role in this process. Based on her findings, Usinger asserted that parents need opportunities to reflect on their own career disappointments, regrets, triumphs, and insights. By including parents in career and college readiness activities and by creating opportunities for them to consider their own growth and development, the career and college counseling process can include the family system in a meaningful and relevant way. Usinger also highlighted
the importance of parents discussing their own struggles and how they have overcome them in order to role model personal success for their children and also demonstrate that everyone has their own personal struggles. These kinds of conversations may become increasingly important, and deeper, as students in middle school contemplate their futures.

Moreover, based on a study by Turner and Lapan (2002), perceived parent support was a predictive factor in students’ career self-efficacy as it accounted for 29% to 43% of total unique variance in career self-efficacy for a sample of middle school students, more evidence of the impetus to include parents. Similarly, Hill and Wang (2015) found that warmth, autonomy, and support had significant indirect effects on college enrollment (up to 3 years post-high school) through school engagement, aspirations, and grade point average. Both of these studies underscore how important it is to keep students and their parents talking, in positive ways, about careers and college in the middle school years. However, many families may need help doing this because it may not come as second nature. Other career skills that parents and students both need

EXHIBIT 10.3
College Colors Day at Highland View Middle School

A middle school counselor, Mr. Burnett, delivered a classroom lesson on career exploration and postsecondary options. He found that many students did not understand the differences between universities, community colleges, and technical schools, and he wanted to do more to promote student awareness of postsecondary institutions and the types of degrees or training certificates they offer. More importantly, he thought students needed this information more consistently and that it should become a continuous part of the academic curriculum.

Mr. Burnett devised a plan with the help of his school counseling advisory committee, which they introduced at a faculty in-service on career and college readiness. The advisory committee collected information on universities, colleges, community colleges, and technical schools in their state and in all surrounding states in the region. At the beginning of each 6-week period, every teacher was given a postsecondary institution to present in each of their classes (each teacher taught six classes and had one planning period) on a day designated as College Colors Day.

On College Colors Day, teachers wore the colors of the postsecondary school they were assigned to present. In each of their six classes they gave a 5-minute presentation including: types of programs/degrees offered, number of students attending, strengths of the school (such as arts, specific degrees, and job placement), highlights about the town in which the school is located, and so on. Every 6 weeks the teachers were all given a different postsecondary institution with information to present on College Colors Day. Students were exposed to information about seven different postsecondary options each College Colors Day. By the end of the year they had heard about 42 different options, and discussions of postsecondary education became a more regular part of the academic discourse of the school.
during the middle school years include how to effectively explore careers and colleges using technology, understanding education and labor market trends, and how to reduce the impact of socially constructed gender types for careers (Amundson & Penner, 1998; Turner & Lapan, 2002).

Literature provides some suggestions of career interventions for parents and students that school counselors can review before designing their own programs (e.g., Parent Involved Career Exploration [PICE]; see Amundson & Penner, 1998). However, before beginning to implement any parent-involved career curriculum, we suggest accurately identifying the career and college needs of the school population served through a needs assessment (ASCA, 2012). See Exhibit 10.4 and Table 10.3 for examples of school counseling program activities designed to include parents.

EXHIBIT 10.4
The Career Conversation Workshops

Mr. Drexler, a middle school counselor, decided to provide seventh-grade students and their parents with an opportunity to have career conversations as part of a large-scale career and college readiness program Mr. Drexler was implementing at Grove Middle School. Although students were receiving career education curriculum in their courses, Mr. Drexler also designed three parent–student workshops for family career exploration (one in September and two in October). He also partnered with a local counselor educator, Dr. Shelton, to collaborate and design the workshops. Dr. Shelton’s school counseling graduate students were volunteers who helped with the parent night programs (nine volunteers in all). Three total workshops were provided lasting 2 hours each with homework assignments for the parents and students in between.

For the first program, parents and students were given an introduction to career and college readiness and the types of tasks they will need to complete from seventh grade to 12th grade. Then, parents and students were given a brief introduction to active listening (including videos with good and bad examples) and positive communication skills. Parents were then asked to discuss three questions with their children (taking turns with both adults and students answering each question): (a) If you could have any career in the world, what would it be? (b) What gifts or talents do you have to bring to the workplace? and (c) What skills do people need to be successful in the workplace? After parents and their children discussed these questions, they came together in groups (facilitated by the school counseling graduate students) to discuss their answers. Homework was assigned at the end of the workshop; the assignment was to fill out a worksheet exploring one career on the Occupational Outlook Handbook website and answer the questions on the worksheet.

For the second program, parents and students were reminded of active listening and positive communication skills, then all were introduced to family and individual values. Dr. Shelton provided a brief developmental overview of
how family values do influence youth, but also how students begin to develop their own unique value systems as they get older. Parents and students were given a list of 48 values (see Table 10.3) that may impact the fit between an individual and his or her career. Then, pictures of individuals working were posted on a screen and the parents and their child discussed the possible values that a person in that work might have that fit with that career. For example, when looking at a picture of a female firefighter, parents and students looked at the careers value list (Table 10.3) and came up with three to five values that a person with the career of firefighter might have (e.g., team work). Next, students and parents each chose three careers of interest to them (one of which they had explored in their homework assigned at the last session) and discussed what values they have that might be a fit for that career. They also talked about things they valued that may not be a fit. For example, one parent stated that a dream job of his was rock star but that he has strong family values and touring/being on the road would not be a fit. Finally, everyone was placed in groups (facilitated by the school counseling graduate students) and discussed values portrayed in social media and how those values may be confusing to people as they consider careers. In one group, a mother mentioned that women are often portrayed in clerical/secretarial roles or as housewives (she named several TV shows and commercials). She was bothered by this as these portrayals didn’t reflect the values she was trying to teach her daughter about being a leader. She stated, “My daughter can be a CEO of a company. I don’t want her to feel she can only be the CEO’s assistant or wife.” The homework assignment for the second workshop was to watch television together and count and list the number of careers seen in a specific show. The parent and student then filled out a worksheet about the values associated with each career and if the career was portrayed in a realistic, stereotypical, or nontraditional way (careers that are portrayed out of gender type, such as male nurses).

In the third parent and child career workshop, parents and students were given specific information about the types of career exploration assessments and activities that students would experience throughout the remainder of seventh grade (from October to May). Parents and students were reminded of communication and active listening skills, then they were asked to answer the following questions:

Parents: What do you wish you knew when you were making career and college decisions for yourself? What career might you have today if you had received the best possible information?

Students: What career concerns do you have today? As you think about the future, what three careers are of most interest to you?

In the final activity, students and parents co-created a collage about what they had learned about and what their wishes were for the student’s future career (magazines were provided by a local distributor). Everyone was put in small groups and the school counseling graduate students facilitated the final discussions and presentations of the career collages.
TABLE 10.3  Career Values Chart

<table>
<thead>
<tr>
<th>Intellectual status</th>
<th>Diversity</th>
<th>Independence</th>
<th>Make decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendships</td>
<td>Excitement</td>
<td>High earnings</td>
<td>Affiliation</td>
</tr>
<tr>
<td>Stability</td>
<td>Change and variety</td>
<td>Team work</td>
<td>Moral fulfillment</td>
</tr>
<tr>
<td>Competition</td>
<td>Power and authority</td>
<td>Honesty and integrity</td>
<td>Fast pace</td>
</tr>
<tr>
<td>Public contact</td>
<td>Influence people</td>
<td>Physical challenge</td>
<td>Adventure</td>
</tr>
<tr>
<td>Work under pressure</td>
<td>Location</td>
<td>Fun and humor</td>
<td>Family</td>
</tr>
<tr>
<td>Challenging problems</td>
<td>Precision work</td>
<td>Collaboration</td>
<td>Status</td>
</tr>
<tr>
<td>Time freedom</td>
<td>Security</td>
<td>Tradition</td>
<td>Recognition</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>Job tranquility</td>
<td>Artistic creativity</td>
<td>Steep learning curve</td>
</tr>
<tr>
<td>Predictability</td>
<td>Spirituality</td>
<td>Feeling competent</td>
<td>Practicality</td>
</tr>
<tr>
<td>Help society</td>
<td>Work alone</td>
<td>Creative expression</td>
<td>Work–life balance</td>
</tr>
<tr>
<td>Supervision</td>
<td>Knowledge</td>
<td>Community</td>
<td>Fame</td>
</tr>
</tbody>
</table>

The parent workshop in Exhibit 10.4 illuminates some of the suggestions for student career development provided by Turner and Lapan (2002): having parents and students engage together in activities that reduce career gender typing (such as co-viewing media and improving media literacy skills to question stereotypes) and developing career exploration skills (e.g., considering values related to careers and using technology to explore and answer questions about a specific career). Moreover, the career conversations in the example provided a structured opportunity for parents and students to discuss careers in a meaningful way.

SUMMARY

In this chapter, we reviewed developmental concepts and career theory relevant to comprehensive career and college planning with sixth- and seventh-grade students. In particular, we highlighted Marcia’s identity statuses and the importance of students learning about themselves in relation to their future careers and college plans. We highlighted how preadolescence and early adolescence are times of growth where students come to understand how their individual preferences may be similar to, or different from, their family of origin (Bowen) and how school counselors might help students explore these similarities and differences (career genogram, parent–student career, and college conversations). We also illuminated specific interventions for middle school students related to STEM. In summary, middle school is a time of vast changes and growth, and the perfect opportunity to promote student understanding of their future career and college options.

Test Your Knowledge

1. What tasks are involved in the development of positive identity formation (consider Erikson, Havighurst, and Marcia)?
2. In what ways is self-concept related to career and college development for sixth- and seventh-grade students?
3. What are the goals of career assessment measures for sixth and seventh graders? In other words, what types of knowledge or insights should they gain?
REFERENCES


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