

## A Historiographic Review of the Research on Undecided Students

David B. Spight, University of California, Irvine

Deirdre Mooney, University of Calgary

Rachael Orr, University of Missouri

*Advising programs for undecided/exploratory students risk reinvention of the wheel through lack of familiarity with existing literature. This lack can also leave the scholar and the practitioner unable to identify potential gaps within the research. Applying the methodological approach of qualitative historiography to literature from 1950 to 2022, our findings clarify the need for a nuanced and clear understanding of undecided/exploratory students. Observed throughout the literature is an awareness that exploration and decision-making skills are valuable to all students. Additionally, cultural context—examining the various models, programs, and interventions through a lens of equity and inclusion—and a more global perspective are critical for future research.*

[doi:10.12930/NACR-22-17]

KEY WORDS: undecided, undeclared, exploratory

In past decades, advising and higher education scholars have sought to better understand different student populations enrolled at our institutions. Many institutions continue to see large numbers of students matriculate as undecided/exploratory each fall term (Gordon & Steele, 2015; Kramer et al., 1994). Additionally, significant numbers of decided students change their initial major choice, many becoming undecided/exploratory. Institutions and scholars have sought to understand undecided students, often through the lens of increased persistence, retention, and degree completion. Santayana's (2011) quote, "Those who cannot remember the past are condemned to repeat it," (p. 172) carries an important caution for academic advising practitioners and scholars interested in understanding the undecided/exploratory student population.

Undecided/exploratory student advising programs risk continuous reinvention of the wheel in both scholarship and practice because of a lack of common familiarity with the limited existing literature. Not knowing the literature renders

both scholar and practitioner unable to identify existing research gaps. Historical examination of the literature could increase common knowledge regarding what is already known, what has been researched, and what remains to be answered, helping to eliminate reinvention and potentially bring about new innovations and ideas on how best to support and challenge undecided students. In this historical analysis, to provide insight on perspectives and experiences that influenced how and why the research was conducted, researchers' backgrounds, topics of scholarship focus, evolution of terminology, and methodologies of the literature were examined. This article aims to raise the level of common understanding of the relevant scholarship shared among academic advisors, advising administrators, and other leaders in higher education, as well as provide an avenue for future research to evolve, especially regarding methodologies, definitions, and the evaluation of undecided/exploratory student support programs.

### Methodology

Using a qualitative historical research approach known as historiography, we aim to explore the nature of the scholarship on undecided/exploratory students. This methodology seeks to understand what is already known and expand existing knowledge about a particular topic (McKee, 2019). Historical research involves examining documentation, primary and secondary sources, and historian interpretations (Thies, 2002). Literature on student undecidedness emerged in the 1950s from an increased need for vocational planning. It has evolved into the current understanding of career/major exploration. Thus, the historical timeframe examined is from 1950 to 2022. The primary sources investigated are those research studies within the timeframe directly related to undecided/exploratory students; secondary sources are those indirectly related. Undecided/exploratory students were not the primary research population

observed in early studies (Gordon, 1995), so secondary sources include studies focused on other topics with findings and implications connected to undecided/exploratory students.

Review of literature in historiography is an integral piece of analysis (McKee, 2019; Wyche et al., 2006). To begin, we cataloged research studies and other publications directly or tangentially focused on undecided/exploratory students into a shared database and continually revisited the catalog to ensure a more comprehensive review of the literature. Next, we reviewed the collected literature to improve our understanding of the findings, examine the methodologies, establish emerging themes, and determine potential gaps in the research. The study, therefore, is limited by the literature included in the analysis. Additionally, some scholarship is excluded from the study based on various search findings or publication after our historical review was completed. Because the literature is primarily generated by U.S. institutions, some findings may not be applicable to higher education systems outside the U.S.

### Literature Review

The relevant literature on undecided/exploratory students comes from various disciplines including, but not limited to, psychology, counseling, education, career development, college student retention, and academic advising. While many of the earliest research studies did not directly focus on the undecided student, they provided much of the initial institutional perceptions about the population. Over time, the scholarship shifted from understanding or attempting to define the undecided student as a homogenous group, to comparisons with decided peers, to improvement of advising interventions and approaches. Five general categories are gleaned from the literature from 1950 to 2022: comparison of undecided versus decided students, major choice/decision-making, conceptual models for major exploration, practical strategies and interventions for working with undecided/exploratory students, and the student experience.

### Comparison of Undecided Versus Decided

The earliest undecided student research focused mostly on student attrition from college, while the most recent studies directly examined undecided students. The aim of these studies was to determine similarities and differences between undecided and

decided students. The groups were compared in terms of academic performance, vocational identity development, attrition and departure from college, and persistence to degree completion.

**Academic performance.** Understandably, initial studies comparing undecided and decided college students often included an examination of first- and second-year student academic performance, usually measured by grade point average (GPA) and/or test scores (Foote, 1980). In part because of different definitions of undecided and decided, research findings were inconclusive, with results indicating undecided students were both *less* academically successful (Anderson et al., 1989; Ashby et al., 1966; Leppel, 2001) and *more* academically successful (Foote, 1980) than decided students. Others determined *no difference* in academic performance between undecided and decided students (Baird, 1969). Disagreement in the literature suggests there exist myriad factors that affect student academic performance beyond the choice to enroll in college without a major.

**Identity development.** Some researchers considering student identity development in college found that students uncertain about educational and vocational choices lacked some level of identity development (Jones & Chenery, 1980; Rose & Elton, 1971). Fuqua and Hartman (1983), examining career indecision as a psychological disorder that requires effective counseling intervention, argued that undecided students had higher levels of anxiety than decided peers, a clear sign of psychological personality dysfunction, which affected their identity development. This early perspective of career indecision as a problem framed much of the early scholarship on identity development and its relationship to educational and career choice.

Although the undecided student may be more likely to display less mature vocational identity development, some scholars consider a student's decision to remain undecided a healthy approach to college (Grites, 1983). Holland and Holland (1977) studied high school and college juniors and found at least three possible subgroups of undecided students based on varying levels of maturity and vocational identity. Consistent with Grites' (1983) perspective, Holland and Holland (1977) acknowledge, however, that "a large proportion of undecided students are doing what intelligent adults do – delaying some decisions until reality arrives. Such a strategy is not necessarily stupid, uniformed, or immature" (p. 412).

**Attrition in college.** The earliest literature on undecided students and persistence in college was approached primarily through an attrition lens (Abel, 1966; Anderson, 1985; Noel, 1985; Sprandel, 1985). Based on staff and administrator perceptions, it rarely provided a clear definition of the undecided student population (Lewallen, 1992). Studies also ranged in number of participants and location of research sites. Abel's (1966) study of only male students at a small liberal arts institution categorized undecided students based on student vocational plan statements as evaluated by four judges. Other studies examined primarily first- and second-year students at large public four-year universities (Foote, 1980; Titley & Titley, 1980).

Noel (1985) attributed reasons for attrition including academic boredom, uncertainty about major, and a lack of motivation to undecided students. Anderson (1985) explained that undecided students with career indecision were more likely to leave college because of a lack of clear goals and direction. Both Noel (1985) and Anderson (1985) based conclusions on perceived reasons for attrition rather than empirical study of student attrition. Gordon (1985) expressed that "some of the general factors identified as causing attrition have also been used to describe the undecided student population," (p. 116) but warned, "it is difficult if not dangerous to make generalizations" (p. 117). The significant number of students changing majors provided some evidence that an overgeneralization occurred and those decided students were at least at a comparable level of risk of departure from college (Pierson, 1962; Titley & Titley, 1980).

Beal and Noel's (1980) frequently cited study contributed to the assumption that undecided students were more likely to depart from institutions. As Lewallen (1992) would later argue, the Beal and Noel (1980) study consisted of a national survey that asked staff and administrators about their perceptions of possible causes for attrition rather than an examination of actual student departure behaviors.

**Persistence, retention, and degree completion.** During the 1980s and early 1990s, institutional focus shifted away from examination of student departure to understanding factors correlated with increasing persistence. As a result, comparisons of student persistence and retention in undecided and decided students emerged in the research (Beatty et al., 1983; Foote, 1980;

Lewallen, 1993, 1994). The early assumption was that undecided students were not likely to persist while decided students would persist. Plaud et al. (1990) found a strong relationship between decidedness and academic adjustment, suggesting undecided students did not experience the same level of academic adjustment. Some scholars argued that other factors were more important in understanding persistence. Foote (1980) concluded that, whether undetermined or determined about major choice, students who earned higher college entrance exam scores and were ranked higher in their high school senior class were more likely to persist. Still, as scholars attempted to establish a link between undecidedness and persistence to degree completion, a lack of consensus appeared in the results (Lewallen, 1994).

In the next decade, Leppel (2001) studied first-year college students regarding major choice and persistence in college and determined undecided students persisted at lower rates than decided students. In contrast, Graunke et al. (2006) found that undecided and decided students have different aims, and therefore, different rates of persistence. Decided students with the goal of degree completion in a specific academic major, or toward a specific career, were less likely to persist to graduation than undecided students with a more general goal of earning a degree. Most recently, in a longitudinal study of first time-in-college students, Spight (2020) determined no difference in terms of persistence between undecided and decided students. Spight (2022) also found that undecided students were just as likely to graduate in four years as decided students. Undecided students were more likely to graduate in general, when measured over a six-year graduation rate.

### **Major Choice/Decision-Making**

The earliest research on major choice was derived from studies regarding career decision-making and career indecision. Often major choice was, and continues to be, perceived as synonymous to career choice. Some studies focused on reasons for career indecision, challenges associated with making decisions, and/or possible barriers to decision-making (Brown & Rector, 2008; Gati & Levin, 2014; Kelly & Lee, 2002; Nauta, 2012).

**Vocational indecision.** Some scholars proposed that many undecided students were more likely to struggle with decision-making beyond major or career choice and as such described undecided students as experiencing more serious

psychological concerns (Fuqua & Hartman, 1983; Hartman & Fuqua, 1983). Others maintained many undecided students were only facing a period of uncertainty reflective of normal development (Akenson & Beecher, 1967; Grites, 1981, 1983; Titley & Titley, 1980).

The basis of early research studies was the examination of the nature of indecision around vocational choice to determine whether vocational indecision was a normal behavior or a more serious psychological problem (Ginzberg et al., 1951; Tyler, 1969). Subsequent literature led to an important distinction: Indecision and indecisiveness are two very different ideas (Goodstein, 1965). Some students faced a temporary period of indecision. In contrast, other students lacked ability to make life situation decisions of any kind. Osipow (1999) described the difference as a state of indecision versus a character trait of indecisiveness. Students with indecisiveness often need personal counseling to learn to make decisions without anxiety. Still, it is important to understand that being undecided is not synonymous with indecisiveness (Holland & Holland, 1977; Osipow, 1999). Additionally, very few students displayed debilitating levels of indecisiveness (Holland & Holland, 1977). Regardless, Grites (1983) reiterated that in daily practice, academic advisors must intentionally distinguish between self-selected “undecided” (state of indecision) students and those who are undecided as well as indecisive (trait of indecisiveness).

**Subtypes of undecided (and decided) students.** Given that some students are indecisive while others face a state of indecision, scholars sought to characterize students into possible subtypes or subgroups (Barak & Friedkes, 1981; Fuqua et al., 1988; Jones & Chenery, 1980; Kelly & Pulver, 2003; Larson et al., 1988; Lucas & Epperson, 1988, 1990; Savickas et al., 1992; Van Matre & Cooper, 1984; Vondracek et al., 1990; Wanberg & Muchinsky, 1992). Through subtyping, institutions could “tailor educational and career related interventions to help them become more focused” (Gordon, 1995, p. x). Gordon (1998) provided a summary of the research and concluded there exist three subgroups of undecided (tentatively undecided, developmentally undecided, and seriously undecided), three subgroups of decided (very decided, somewhat decided, and unstable decided), and one subgroup of indecisive students (chronically indecisive).

**Reasons for being undecided.** Lack of agreement in the literature about whether being undecided

is normal or of psychological concern led to exploration of reasons students may be undecided. Numerous studies considered possible factors contributing to indecision about major or career choice, such as anxiety (Hawkins et al., 1977; Kimes & Troth, 1974), career salience (Greenhaus, 1971; Greenhaus & Simon, 1977), family and peer expectations (Tyler, 1969), identity development (Gordon & Ikenberry Kline, 1989; Jones & Chenery, 1980; Rose & Elton, 1971), locus of control (Hartman & Fuqua, 1983), and self-efficacy (Taylor & Betz, 1983). Others determined some students remain undecided because of lack of exploration and/or decision-making skills (Gordon, 1981; Hagstrom et al., 1997) and/or willingness to explore (Peterson & McDonough, 1985). Generally, findings from these studies reflect the myriad possible reasons for major choice indecision and recognize that reasons for indecision vary for each student (Taylor, 1982).

**Major changers.** For some students, major choices are made with lack of information about majors and/or careers, experience with decision-making, or a combination of these conditions (Gordon, 1985; Grites, 1983). Numerous scholars determined significant numbers of students were engaging in major-changing behavior (Foote, 1980; Pierson, 1962). At Colorado State University, Titley and Titley (1980) estimated 65% to 70% of students would change their major at least once before graduation. Kramer et al. (1994), in a longitudinal study at Brigham Young University, found declared students changed majors at much higher rates than undecided students, 13% to 38% more often. As a result, few decided students graduate with their initial major choice. For many decided students, the initial uninformed choice of major may be due to pressure to decide early from various external sources such as parents, peers, high school guidance counselors, academic advisors and career counselors, and institutional policies and practices (Berger, 1967; Grites, 1981; Titley & Titley, 1980).

### Conceptual Models for Major Exploration

Throughout the 1970s and 1980s, the number of undecided students on campuses increased (Beatty et al., 1983). This included those who changed majors (Foote, 1980; Kramer et al., 1994; Titley & Titley, 1980), particularly those unable to continue in or be admitted into their desired program (Gordon & Polson, 1985). This increase led to development of many conceptual frameworks



advisors should consider when working with undecided students.

Often, models developed throughout the 1980s and 1990s were built on previously established theories of student, life, and identity development and decision-making (Bertram, 1996; Gordon, 1981; Gordon & Ikenberry Kline, 1989; Habley, 1994). Because of the integrated nature of major and career exploration (Bogenschutz, 1994), career development theory also underpinned many models developed by advisors and scholars supporting undecided students (Dollarhide, 1999; Gordon, 1992; Gordon, 2006). Notably, many academic advisors continue to rely on Gordon's (1992) model for making satisfying career decisions.

Others extended the developmental advising approach to undecided students. For Grites (1981), unpacking student career conceptions, exploring career options, and promoting university as a holistic experience beyond academics and career was imperative to undecided student development. Laff (1994) advocated a critical thinking model of developmental advising where advisors act as "research director" (p. 30) by asking questions that prompt students to individually investigate degree, career, and extracurricular opportunities, honing research and critical thinking skills. Using chaos theory, Beck (1999) taught that undecided students are a dynamic, ordered system that experiences unpredictability, so through analysis of their own themes and patterns, they could embrace uncertainty and feel less hopeless about being undecided.

Using these theoretical approaches as a foundation, some scholars developed models to directly shape advising of undecided students. With the aim of highlighting variation among undecided students, and therefore the services advisors provide, Jones and Chenery (1980) devised an instrument for advisors to determine a student's level of decidedness on career choice, comfort with that level, and reasons for being undecided. Larson et al. (1988) studied upper-year students still undecided by the deadline to declare a major in comparison with decided students who had made a decision by the deadline and concluded a significant difference between each group relative to career planning. The model divided the undecided group into four categories and described specific career exploration activities to better engage student skill development within each category.

In the mid-1990s, scholars began discussing advising models for special populations of undecided students. Beatty (1994) identified at-risk, athletes, high achieving, adult learners, students with disabilities, and minority students, as special populations of undecided students, and provided tips and tools for working with each based on a Continuous Quality Improvement approach King and Raushi (1994) recognized undecided community college students as a special population with the same needs as those in four-year universities in relation to major and career exploration and decision-making but highlight the community college experience can potentially add extra layers of complexity to the decision. Steele (1994) acknowledged upper-year major changers as a special population who require more dedicated advising than first-year counterparts because of the greater complexity of their situations and outlined a model for effective major-changer advising. Specialized programming for major-changers is especially important with consideration that the majority of sophomore major-changers whom Elliot and Elliot (1985) surveyed relied most on discussions with friends and family to help choose a new major.

Gordon (2006) later proposed the conceptual 3-I model for career advising, applicable for use by any advisor supporting both undecided and decided students. The 3-I model uses three phases to frame the career advising process: Inquire, Inform, and Integrate. Students first identify career concerns and needs, then collect information about opportunities and options, and finally, integrate the information into a crystalized decision.

### **Practical Strategies and Interventions**

Beyond the conceptual models and scholarly focus comparing undecided with decided students and undecided subtypes, research has also explored practical activities and interventions to support decision-making and career development of undecided students. McDaniels et al. (1994) discussed holistic support of undecided students on campus, including use of "deciding" language to positively frame undecidedness. Because the majority of students change programs at some point during their studies, decision-making services must come from multiple sources, including warm faculty referrals, awareness promotion through academic advisors, workshops, and orientation sessions (McDaniels et al., 1994). In alignment with campus-wide awareness and support of

undecided students, Barman and Benson (1981) examined orientation peer advising as an intervention to help new exploratory students develop connections on campus; student satisfaction ratings suggest the experience was positive. Additionally, Abel (1981) identified residence hall coordinators as resources for undecided students, both to explore major advising and career referrals and to integrate the student experience across student and academic affairs. Overall, research supports the effectiveness of interventions such as holistic programs, workshops, and courses for undecided students.

**Programs.** One way to support the expanding undecided student group is to create multi-pronged efforts or holistic direct intervention advising programs/offices. In a review of multiple advising programs for undecided students, Stuart Hunter and Harwood (1994) found that exemplary programs emphasized self-reflection, information gathering, career investigation, and planning. This is consistent with the research of Beatty et al. (1983), which described the development of an advising program that included both dedicated/intrusive advising for undecided students and a specialized course focused on career development. Both provided opportunities for undecided students to develop skills of self-reflection, educational/career investigation, and decision-making, which the study implied was lacking in these students before the intervention (Beatty et al., 1983). Groccia and Harrity (1991) also described a program for undecided first-year students at a science/engineering technical institute that included a seminar, career resource library, and a job shadow experience. Program objectives were supported by data showing a majority of participating students declared majors after their first semester and were retained into second semester (Groccia & Harrity, 1991).

Gordon and Steele (1992) reviewed outcomes from a similar advising program, which included a combination of intrusive advising, group advising workshops, and a specially designed course to support upper-level students who needed to identify a new academic direction and were not progressing toward original academic goals. They argued that students who encounter academic or institutional barriers in pursuit of initial degree plans are often left to resolve issues independently and need dedicated intrusive advising programming. A later longitudinal study measured the program's effectiveness and found that

participating students were more likely to be retained and graduate (Steele et al., 1993). Additionally, student participants generally selected new degree pathways to which they realistically could be admitted, and most graduated with the new degree selection (Steele et al., 1993).

Other programmatic efforts explored organizational shifts to incorporate additional support resources for undecided students within the same unit. In an early example of the organizational integration of career counseling and academic advising, Bradley (1983) identified career indecision as a problem for student retention and suggested students leave college without engaging in significant career exploration, which impacts their ability to choose a program. To address this concern, an integrated career counseling program within the academic advising unit was created. Over three years, 65% of participating students completed and chose majors; most students who did not complete the program left the institution.

**Academic workshops and courses.** Many interventions in the literature focus on group advising in which students with common major selection concerns complete structured work together. Stuart Hunter and Harwood (1994) found that many undecided student advising programs rely on workshops and seminars. Multiple studies support specialized workshops/courses for undecided students to improve decision-making and career development outcomes.

Carver and Smart (1985) assessed a for-credit career exploration course for undecided first-year students and found that upon completion, students showed greater academic and career decidedness and maturity, as well as greater engagement with academic and career planning services, than a control group of students who did not participate in the course. Barefoot and Searcy (1994) reiterated that first-year seminars are one of the best tools available to undecided students to explore major and career options and make future plans early in their academic careers. Legutko (2007) found that students who participated in a self-assessment and major exploration workshop made more accurate and informed decisions and gained increased confidence to declare a major. Participants were also more likely to graduate in the major they selected following the workshop (Legutko, 2007). In a mixed-method study, Reynolds et al. (2010) found students who completed a leadership and life-calling course were six times more likely to complete a degree

in four years compared to other students in their entering cohort. Participants indicated the course helped them normalize experiences, increase self-awareness, and make better-informed decisions related to their major (Reynolds et al., 2010).

In addition to improved career development outcomes, research supports workshops and courses to improve retention among undecided students (Beatty et al., 1983; Tampke & Durodoye, 2013) and GPAs (Tampke & Durodoye, 2013). Specifically, Pickenpaugh et al. (2022) examined a first-year seminar course for undecided students and found that participants entering their sophomore year had an average GPA 0.4 points higher, and 10% greater retention, when compared with undecided students who did not participate in the seminar.

Within courses or advising meetings, research highlights specific activities to assist undecided students in major and career exploration. For example, Malott and Magnuson (2004) found use of a genogram activity in five career exploration course sessions, where students created graphic representations of multiple generations of their extended family, benefited the student experience and advanced insight to inform decision-making. The benefit was based on student reflections of family members' career-related attitudes. Schein and Laff (1997) described an advising activity in which students develop an individualized plan of coursework and extra-curricular activities that incorporates their interests, learning, and skills to create a college experience focused on educational/career/life goals rather than a specific major. Childress (1998) described the use of ACT assessment tools to help undecided students explore major and career options that match their goals and are based on interests, personality traits, and strengths. In advising appointments, the tool can help students clarify goals and interpret information gathered from major and career research (Childress, 1998).

### The Student Experience

Research from the past 25 years has focused on the undecided student experience from a qualitative perspective. Each focused on a different characteristic or activity of undecidedness. Ellis (2014) explored advising experiences of first-year undeclared students and discovered student expectations of advising were informed by prior experiences with guidance counselors. Ellis (2014) also highlighted that while the undeclared students had a variety of reasons for being undecided, they

ultimately exhibited discomfort with this status. Glaessgen et al. (2018) similarly found high levels of anxiety in first-year students, heightened for first-generation undecided students who, in seeking support to help them with transitioning to college, were more likely to turn to friends, student organizations, or roommates. These students did not seek support from academic advisors because of a lack of understanding about the role and uncertainty about what questions to ask of their advisor (Glaessgen et al., 2018). As advisors and other educators are one of the many factors that influence student decision-making about majors (Pearson & Dellman-Jenkins, 1997), how a student perceives and understands advising is important. Hagstrom et al. (1997) learned that undecided sophomores and juniors, in particular, experience anxiety and hesitate to seek help. Hagstrom et al. (1997) discovered participants with higher accumulation of credits experienced anxiety and frustration having not yet selected a major. Other themes students described included fear of commitment, fear of judgement, self-doubt, difficulty setting goals, family pressure, reluctance to seek help, and the desire for a personal advising relationship (Hagstrom et al., 1997).

### Findings

This study aims to determine the nature of the existing scholarship on undecided/exploratory students. Using the qualitative methodology of historiography, the review uncovered five general themes regarding the literature: researchers, topics of study, evolution of terminology, methodological challenges, and limited and outdated research.

### Researchers

From 1950 to 2022, research on undecided/exploratory students has been conducted by scholars representing a variety of postsecondary roles including faculty, administrators, student affairs professionals, and graduate students, and has drawn from a range of disciplines. The earliest research came predominantly from faculty in psychology and counseling disciplines, particularly career counseling, and functioned primarily to try to determine how to treat the perceived problem of career indecision. Researcher background then shifted to include faculty in education, particularly higher education. Though not as frequent, research on undecided/exploratory students has also sprung from other disciplines such as economics.

Many early scholars had backgrounds in student development, career development, and student success. In time, academic advising practitioners increasingly conducted research, and much of the most recent scholarship on undecided/exploratory students has been conducted by scholars pursuing graduate education who often simultaneously serve as advising practitioners supporting undecided/exploratory students. The shift of researcher background to those in student development, student success, and academic advising may also explain the difference in view from indecision as a psychological problem to one of normal student development. Additionally, this shift in background may partially account for the general lack of new scholarship regarding undecided/exploratory students because research is not often a primary job responsibility.

### Topics of Study

The earliest research on undecided/exploratory students derives from studies of vocational decision-making and indecision. Eventually, the focus shifted to an attempt to understand the undecided student as an at-risk population in comparison to decided peers. This use of comparison as a frame for research continues still. Through the 1980s and 1990s, scholars considered the possibility of subgroups of undecided, decided, and major changing students. Additionally, they examined and developed models, programs, and interventions with the intention of increased support for undecided students. In recent decades, literature has included studies about student experience with advising and major exploration. Figure 1 shows the topics of research over time.

### Evolution of Terminology

Evidence of the disciplinary shift in research from psychology and counseling to higher education is demonstrated in the evolution of terminology used by scholars. Early studies rooted in vocational decision-making evolved into questions about career development and eventually blended career with major exploration and choice. Research comparisons of undecided and decided students evolved from a deficit-model view of attrition to a strengths-based lens of persistence and retention. Rather than ask why undecided students depart college, presuming character trait flaws or lack of academic ability, later scholars sought to understand influential factors for undecided students to persist to graduation. Thus, the

research has shifted from understanding undecidedness as a psychological problem requiring counseling to describing it as a typical component of the postsecondary journey, which requires support from the wide network of institutional professionals contributing to the educational experience of undecided/exploratory students.

### Methodological Challenges

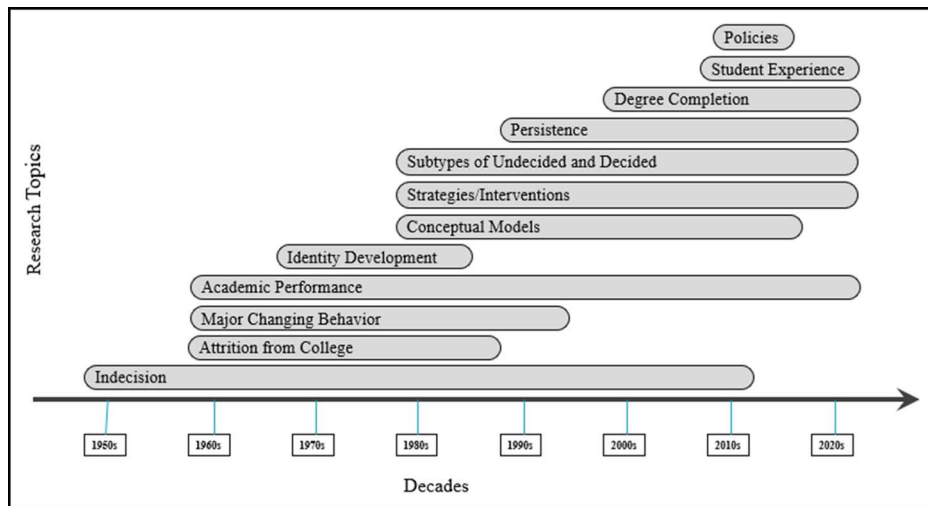
Methodological challenges are apparent throughout the literature from 1950 to 2022. The main challenge is the lack of common or consistent definitions describing undecided students. Ashby et al. (1966), in one of the earliest attempts to define undecided students, described them as those “who had difficulty in identifying an entry program in the university and chose instead to begin their university studies in the Division of Counseling” (p. 1038). Nearly 2 decades later, Foote (1980) characterized undecided students as those who, after having completed 2 years of college, were still undetermined about their academic major. In a study of undecided, decided, and major changing students, Anderson et al. (1989) identified the term *undecided* as “an administrative term that identifies students who have not chosen a major field of study” (p. 46). Lewallen (1992) and Gordon (2007) indicated undecided students are unwilling, unable, or unprepared to make educational and/or career choices. Complicating the challenge of inconsistent definitions is the use of terms like *deciding*, *exploratory*, *general studies major*, *open-option*, *pre-major*, *undeclared*, and *undetermined* as labels interchangeable with *undecided*. In addition to inconsistent definitions, many early studies lacked an empirical examination of undecided students and their behaviors (Lewallen, 1992). Qualitative research highlighting the experiences of undecided students is a more recent phenomenon.

### Limited and Outdated Research

Literature on undecided/exploratory students is limited and outdated. Numerous graduate student dissertations examined the undeclared student population or issues around major choice behaviors (Kittendorf, 2012; Pringle, 2014), though many of these studies have not been peer-reviewed and/or subsequently published. Additionally, these and following dissertations have included the same outdated literature. As a result, existing relevant literature continues to become more limited and forces academic advisors to rely on the same outdated



**Figure 1.** Research on Undecided Students Over Time



*Note.* The figure depicts general categories of research topics across the decades. It is not a comprehensive list of all researched topics.

scholarship on undecided/exploratory students as the basis for their daily work.

### Discussion

#### Undecided students are not a homogenous population of students

Emerging from the historical review of the relevant research is a clear sense that the *undecided* label was not easy to define or describe. Numerous scholars attempted to categorize, sub-categorize, and compare and contrast the undecided student with their decided peers. Our analysis might conclude that defining the undecided/exploratory student is impossible, or at best, unnecessary.

#### Gaps exist in the current research

Lack of recent research is evident throughout our analysis of the literature related to undecided/exploratory students. Current researchers and practitioners have need for specific, timely, relevant knowledge around major choice, major-changing behaviors, and the quantitative and qualitative effects of exploratory advising on students and major choice. Further, because a breadth of conceptual models, strategies, and interventions are presented in the early history of undecided student research, new efforts to validate these frameworks could advance how advisors engage in exploratory advising today.

### Implications for Research and Practice

Based on the literature reviewed for this study, a more common understanding of undecided/exploratory students would allow academic advising practitioners, scholars, administrators, and higher education leaders to better serve this population. One step in building this common understanding is to consider the focus of new research on undecidedness. For example, rather than comparison of undecided and decided students, research might instead focus on major-changers, particularly upper-year major changers, as this may be more relevant to the investigation into undecidedness. The current literature indicates that undecided and decided students are more similar than different (Anderson et al., 1989; Gordon, 1981; Lewallen, 1993, 1995; Spight, 2020, 2022), so further comparison will likely not expand understanding. Likewise, as much of the current literature focuses on undecidedness at matriculation and freshman decision-making (Barefoot & Searcy, 1994; Carver & Smart, 1985; Chase & Keene, 1981; Foote, 1980; Theophilides et al., 1984; Titley & Titley, 1980), it is time to advance understanding of the impact of major change and undecidedness on upper-year students.

An additional consideration for new research is cultural context. Currently, the literature is predominately from the U.S., which presents opportunity

to explore understanding of undecidedness from a global perspective. Future research could examine the intersection of major/career exploration and myriad student identities/demographics. Of particular interest may be the influence of cultural practices, expectations, and ways of knowing on the major/career exploration process. As much of the literature on undecidedness highlights exploratory programming developed from a Western colonial lens, re-examining and implementing theories, models, and interventions from a more culturally inclusive perspective could improve academic advising practices, and hopefully, institutional policies around undecidedness.

All students have the potential to become undecided/exploratory at some point during their college experience, or as part of their career development, therefore, research might also focus on understanding ways to best assist *all* college students with major and career exploration and choice. Additionally, examination into the various models, programs, and interventions through a lens of equity and inclusion is integral given that many of the existing models were developed when access to higher education was more limited. Academic advising practice should more generally focus on assisting all students with major/career exploration and decision-making. Threaded throughout the current literature on undecided models, programs, and interventions is an awareness that the skills of exploration and decision-making are valuable to all students (Gordon, 1981, 1992; Gordon & Ikenberry Kline, 1989; Grites, 1981; Spight, 2020), and this skill development should be a priority and fundamental learning outcome of academic advising.

### Conclusion

This study is a call to action for academic advising practitioners, scholars, administrators, and higher education leaders to avoid reinventing the wheel regarding undecided students. Read existing literature before developing new programs or evaluating current programs. State clearly the definitions used in researching particular student populations such as undecided/exploratory students. Hone a sophisticated understanding of the undecided/exploratory student, undecidedness, major/career exploration, and decision-making. Implement literature-based knowledge, skills, and innovative approaches. Experiment with multiple ways of knowing to develop resources that allow students to explore majors/careers in culturally inclusive

ways. Research new avenues to expand collective understanding of how to best navigate and support undecidedness.

### References

- Abel, J. (1981). Residence hall coordinators: Academic advising for “undecided” students. *NACADA Journal*, 1(2), 44–46.
- Abel, W. H. (1966). Attrition and the student who is certain. *Personnel and Guidance Journal*, 44(10), 1042–1045.
- Akenson, D. H., & Beecher, R. S. (1967). Speculations on change of college major. *College and University*, 42(2), 175–180.
- Anderson, B. C., Creamer, D. G., & Cross, L. H. (1989). Undecided, multiple change, and decided students: How different are they? *NACADA Journal*, 9(1), 46–50.
- Anderson, E. (1985). Forces influencing student persistence and achievement. In L. Noel, R. Levitz, D. Saluri, & Associates. *Increasing student retention: Effective programs and practices for reducing the dropout rate*. Jossey-Bass.
- Ashby, J. D., Wall, H. W., & Osipow, S. H. (1966). Vocational certainty and indecision in college freshmen. *Personnel and Guidance Journal*, 44(10), 1037–1041.
- Baird, L. L. (1969). The undecided student—How different is he? *Personnel and Guidance Journal*, 47(5), 429–434.
- Barak, A., & Friedkes, R. (1981). The mediating effects of career indecision subtypes on career-counseling effectiveness. *Journal of Vocational Behavior*, 20(1), 120–128.
- Barefoot, B. O., & Searcy, D. N. (1994). Freshman seminars and other courses for undecided students. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 59–66). South Carolina Press.
- Barman, C. R., & Benson, P. A. (1981). Peer advising: A working model. *NACADA Journal*, 1(2), 33–40.
- Beal, P. E., & Noel, L. (1980). *What works in student retention*. The American College Testing Program and the National Center for Higher Education Management Systems.
- Beatty, J. D. (1994). Advising special groups within the undecided student population. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 67–83). South Carolina Press.
- Beatty, J. D., Davis, B. B., & White, B. J. (1983). Open option advising at Iowa State University:

- An integrated advising and career planning model, *NACADA Journal*, 3(1), 39–48.
- Beck, A. (1999). Advising undecided students: Lessons from chaos theory. *NACADA Journal*, 19(1), 45–49.
- Berger, E. M. (1967). Vocational choices in college. *Personnel and Guidance Journal*, 45(9), 888–894.
- Bertram, R. M. (1996). The irrational nature of choice: A new model for advising undecided students? *NACADA Journal*, 16(2), 19–24.
- Bogenschutz, M. (1994). Career advising for the undecided student. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 49–58). South Carolina Press.
- Bradley, L. J. (1983). Career indecision: A dilemma and a solution. *NACADA Journal*, 3(2), 33–37.
- Brown, S. D., & Rector, C. C. (2008). Conceptualizing and diagnosing problems in vocational decision making. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (4<sup>th</sup> ed., pp. 392–407). Wiley.
- Carver, D. S., & Smart, D. W. (1985). The effects of a career and self-exploration course for undecided freshmen. *Journal of College Student Personnel*, 26, 37–43.
- Chase, C. I., & Keene, J. M. (1981). Major declaration and academic motivation. *Journal of College Student Personnel*, 22, 496–502.
- Childress, B. B. (1998). Using American College Testing Program materials to facilitate career exploration by undecided advisees. *NACADA Journal*, 18(1), 42–49.
- Dollarhide, C. T. (1999). Career processes and advising: Tools for the advisor. *NACADA Journal*, 19(2), 34–36.
- Elliot, E. S., & Elliot, V. S. (1985). Change of major and use of academic resources. *NACADA Journal*, 5(2), 35–40.
- Ellis, K. C. (2014). Academic advising experiences of first-year undecided students: A qualitative study. *NACADA Journal*, 34(2), 42–50.
- Foote, B. (1980). Determined- and undetermined-major students: How different are they? *Journal of College Student Personnel*, 21(1), 29–33.
- Fuqua, D. R., & Hartman, B. W. (1983). Differential diagnosis and treatment of career indecision. *Personnel and Guidance Journal*, 62(1), 27–29.
- Fuqua, D. R., Newman, J. L., & Seaworth, T. B. (1988). Relation of state and trait anxiety to different components of career indecision. *Journal of Counseling Psychology*, 35(2), 154–158.
- Gati, I., & Levin, N. (2014). Counseling for career decision-making difficulties: Measures and methods. *The Career Development Quarterly*, 62(2), 98–113.
- Glaessgen, T. A., MacGregor, C. J., Cornelius-White, J. H. D., Hornberger, R. S., & Baumann, D. M. (2018). First-generation students with undecided majors: A qualitative study of university reacculturation. *NACADA Journal*, 38(1), 22–35.
- Ginzberg, E., Ginsburg, S. W., Axelrad, S., & Herma, J. L. (1951). *Occupational Choice*. Columbia University Press.
- Goodstein, L. (1965). Behavior theoretical views of counseling. In B. Steffire (Ed.), *Theories of counseling* (pp. 140–192). McGraw-Hill.
- Gordon, V. N. (1981). The undecided student: A developmental perspective. *Personnel and Guidance Journal*, 59(7), 433–439.
- Gordon, V. N. (1985). Students with uncertain academic goals. In L. Noel, R. Levitz, D. Saluri, & Associates. *Increasing student retention: Effective programs and practices for reducing the dropout rate* (pp. 116–137). Jossey-Bass.
- Gordon, V. N. (1992). *Handbook of academic advising*. Greenwood Press.
- Gordon, V. N. (1995). *The undecided college student: An academic and career advising challenge* (2<sup>nd</sup> ed.). Charles C. Thomas.
- Gordon, V. N. (1998). Career decidedness types: A literature review. *The Career Development Quarterly*, 46(4), 386–403.
- Gordon, V. N. (2006). *Career advising: An academic advisor's guide*. Jossey-Bass.
- Gordon, V. N. (2007). *The undecided college student: An academic and career advising challenge* (3<sup>rd</sup> ed.). Charles C. Thomas.
- Gordon, V. N., & Ikenberry Kline, D. (1989). Ego-identity statuses of undecided and decided students and their perceived advising needs. *NACADA Journal*, 9(1), 5–15.
- Gordon, V. N., & Polson, C. J. (1985). Students needing academic alternative advising: A national survey. *NACADA Journal*, 5(2), 77–84.
- Gordon, V. N., & Steele, G. E. (1992). Advising major-changers: Students in transition. *NACADA Journal*, 12(1), 22–27.
- Gordon, V. N., & Steele, G. E. (2015). *The undecided college student: An academic and career advising challenge* (4<sup>th</sup> ed.). Charles C. Thomas.
- Graunke, S. S., Woosley, S. A., & Helms, L. L. (2006). How do their initial goals impact students' chances to graduate? An exploration of

- three types of commitment. *NACADA Journal*, 26(1), 13–18.
- Greenhaus, J. H. (1971). An investigation of the role of career salience in vocational behavior. *Journal of Vocational Behavior*, 1(3), 209–216.
- Greenhaus, J. H., & Simon, W. E. (1977). Career salience, work values, and vocational indecision. *Journal of Vocational Behavior*, 10(1), 104–110.
- Grites, T. J. (1981). Being “undecided” might be the best decision they could make. *The School Counselor*, 29(1), 41–46.
- Grites, T. J. (1983). “Undecided” or undecided: A reexamination. *The School Counselor*, 30(5), 347–349.
- Groccia, J. E., & Harrity, M. B. (1991). The major selection program: A proactive retention and enrichment program for undecided freshmen. *Journal of College Student Development*, 32(2), 178–179.
- Habley, W. R. (1994). Administrative approaches to advising undecided students. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 16–23). South Carolina Press.
- Hagstrom, S. J., Skovholt, T. M., & Rivers, D. A. (1997). The advanced undecided college student: A qualitative study. *NACADA Journal*, 17(2), 23–30.
- Hartman, B. W., & Fuqua, D. R. (1983). Career indecision from a multidimensional perspective: A reply to Grites. *The School Counselor*, 30(5), 340–346.
- Hawkins, J. G., Bradley, R. W., & White, G. W. (1977). Anxiety and the process of deciding about a major and vocation. *Journal of Counseling Psychology*, 24(5), 398–403.
- Holland, J. L., & Holland, J. E. (1977). Vocational indecision: More evidence and speculation. *Journal of Counseling Psychology*, 24(5), 404–414.
- Jones, L. K., & Chenery, M. F. (1980). Multiple subtypes among vocationally undecided college students: A model and assessment instrument. *Journal of Counseling Psychology*, 27(5), 469–477.
- Kelly, K. R., & Lee, W.-C. (2002). Mapping the domain of career decision problems. *Journal of Vocational Behavior*, 61(2), 302–326.
- Kelly, K. R., & Pulver, C. A. (2003). Refining measurement of career indecision types: A validity study. *Journal of Counseling and Development*, 81(4), 445–454.
- Kimes, H. G., & Troth, W. A. (1974). Relationship of trait anxiety to career decisiveness. *Journal of Counseling Psychology*, 21(4), 277–280.
- King, M. C., & Raushi, T. M. (1994). Undecided students in community colleges. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 93–100). South Carolina Press.
- Kittendorf, L. A. (2012). *An exploration of undeclared students’ expectations of experiences for faculty interactions and co-curricular involvement* [Doctoral Dissertation, University of South Florida] USF Tampus Graduate Theses and Dissertations. <https://digitalcommons.usf.edu/etd/4100>.
- Kramer, G. L., Higley, H. B., & Olsen, D. (1994). Changes in academic major among undergraduate students. *College and University*, 69(2), 88–96.
- Laff, N. S. (1994). Developmental advising for undecided students: Rethinking the relationships. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 25–35). South Carolina Press.
- Larson, L. M., Heppner, P. P., Ham, T., & Dugan, K. (1988). Investigating multiple subtypes of career indecision through cluster analysis. *Journal of Counseling Psychology*, 35(4), 439–446.
- Legutko, R. S. (2007). Influence of an academic workshop on once-undeclared graduates’ selection of a major. *College Student Journal*, 41(1), 93–99.
- Leppel, K. (2001). The impact of major on college persistence among freshmen. *Higher Education*, 41(3), 327–342.
- Lewallen, W. C. (1992). *Persistence of the “undecided”: The characteristics and college persistence of students undecided about academic major or career choice* [Doctoral dissertation, University of California Los Angeles]. Dissertation Abstracts International.
- Lewallen, W. C. (1993). The impact of being “undecided” on college-student persistence. *Journal of College Student Development*, 34(2), 103–112.
- Lewallen, W. C. (1994). A profile of undecided college students. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 5–16). South Carolina Press.
- Lewallen, W. C. (1995). Students decided and undecided about career choice: A comparison of college achievement and student involvement. *NACADA Journal*, 15(1), 22–30.



- Lucas, M. S., & Epperson, D. L. (1988). Personality types in vocationally undecided students. *Journal of College Student Development*, 29(5), 460–466.
- Lucas, M. S., & Epperson, D. L. (1990). Types of vocational undecidedness: A replication and refinement. *Journal of Counseling Psychology*, 37(4), 382–388.
- Malott, K. M., & Magnuson, S. (2004). Using genograms to facilitate undergraduate students' career development: A group model. *The Career Development Quarterly*, 53(2), 178–186.
- McDaniels, R. M., Carter, J. K., Heinzen, C. J., Candrl, K. I., & Wieberg, A. M. (1994). Undecided/undeclared: Working with “deciding” students. *Journal of Career Development*, 21(2), 135–139.
- McKee, A. J. (2019). *Fundamentals of Social Research*. Forma Pauperis Press.
- Nauta, M. M. (2012). Temporal stability, correlates, and longitudinal outcomes of career indecision factors. *Journal of Career Development*, 39(6), 540–558.
- Noel, L. (1985). Increasing student retention: New challenges and potential. In L. Noel, R. Levitz, D. Saluri, & Associates. *Increasing student retention: Effective programs and practices for reducing the dropout rate* (pp. 1–27). Jossey-Bass.
- Osipow, S. H. (1999). Assessing career indecision. *Journal of Vocational Behavior*, 55(1), 147–154.
- Pearson, C., & Dellman-Jenkins, M. (1997). Parental influence on a student's selection of a college major. *College Student Journal*, 31(3), 301–313.
- Peterson, L., & McDonough, E. (1985). Developmental advising of undeclared students using an integrated model of student growth. *NACADA Journal*, 5(1), 61–69.
- Pickenpough, E. N., Yoast, S. R., Baker, A., & Vaughan, A. L. (2022). The role of first-year seminars and first-year college achievement for undeclared students. *Higher Education*, 83(5), 1063–1077.
- Pierson, R. P. (1962). Changes of majors by university students. *Personnel and Guidance Journal*, 40(5), 458–461.
- Plaud, J. J., Baker, R. W., & Groccia, J. E. (1990). Freshman decidedness regarding academic major and anticipated and actual adjustment to an engineering college. *NACADA Journal*, 10(2), 20–26.
- Pringle, E. J. (2014). *The unintended and unexpected outcomes of a major selection policy* [Doctoral dissertation, Kent State University]. OhioLINK Electronic Theses and Dissertations Center. [http://rave.ohiolink.edu/etdc/view?acc\\_num=kent1411423381](http://rave.ohiolink.edu/etdc/view?acc_num=kent1411423381)
- Reynolds, P. J., Gross, J. P. K., Millard, B., & Pattengale, J. (2010). Using longitudinal mixed-methods research to look at undeclared students. *New Directions for Institutional Research*, 2010(52), 53–66.
- Rose, H. A., & Elton, C. F. (1971). Attrition and the vocationally undecided student. *Journal of Vocational Behavior*, 1(1), 99–103.
- Santayana, G. (2011). *The life of reason: Introduction and reason in common sense* (Book 1, Vol. 7). MIT Press.
- Savickas, M. L., Carden, A. D., Toman, S., & Jarkoura, D. A. V. (1992). Dimensions of career decidedness. *Measurement and Evaluation in Counseling and Development*, 25(3), 102–112.
- Schein, H. K., & Laff, N. S. (1997). Working with undecided students: A hands-on strategy. *NACADA Journal*, 17(1), 42–48.
- Spight, D. B. (2020). Early declaration of a college major and its relationship to persistence. *NACADA Journal*, 40(1), 94–109.
- Spight, D. B. (2022). Undeclared versus declared: Who is more likely to graduate? *Journal of College Student Retention: Research, Theory and Practice*, 23(4), 945–964.
- Sprandel, H. Z. (1985). Career planning and counseling. In L. Noel, R. Levitz, D. Saluri, & Associates. *Increasing student retention: Effective programs and practices for reducing the dropout rate* (pp. 302–318). Jossey-Bass.
- Steele, G. E. (1994). Major-changers: A special type of undecided student. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 85–92). South Carolina Press.
- Steele, G. E., Kennedy, G. J., & Gordon, V. N. (1993). The retention of major changers: A longitudinal study. *Journal of College Student Development*, 34(1), 58–62.
- Stuart Hunter, M., & Harwood, D. (1994). Exemplary advising programs for undecided students. In V. N. Gordon (Ed.), *Issues in advising the undecided college student* (Monograph No. 15, pp. 123–129). South Carolina Press.
- Tampke, D. R., & Durodoye, R. (2013). Improving academic success for undecided students: A first-year seminar/learning community approach. *Learning Communities Research and Practice*, 1(2).

- Taylor, K. M. (1982). An investigation of vocational indecision in college students: Correlates and moderators. *Journal of Vocational Behavior*, 21(1), 318–329.
- Taylor, K. M., & Betz, N. E. (1983). Applications of self-efficacy theory to the understanding and treatment of career indecision. *Journal of Vocational Behavior*, 22(1), 63–81.
- Theophilides, C., Terenzini, P. T., & Lorang, W. (1984). Freshman and sophomore experiences and changes in major field. *Review of Higher Education*, 7(3), 261–278.
- Thies, C. G. (2002). A pragmatic guide to qualitative historical analysis in the study of international relations. *International Studies Perspectives*, 3(2), 351–372.
- Titley, R. W., & Titley, B. S. (1980). Initial choice of college major: Are only the “undecided” undecided? *Journal of College Student Personnel*, 21(4), 293–298.
- Tyler, L. E. (1969). *The work of the counselor* (3<sup>rd</sup> ed.). Appleton-Century-Crofts.
- Van Matre, G., & Cooper, S. (1984). Concurrent evaluation of career indecision and indecisiveness. *Personnel and Guidance Journal*, 62(10), 637–639.
- Vondracek, F. W., Hostetler, M., Schulenberg, J. E., & Shimizu, K. (1990). Dimensions of career indecision. *Journal of Counseling Psychology*, 37(1), 98–106.
- Wanberg C. R., & Muchinsky, P. M. (1992). A typology of career decision status: Validity extension of the vocational decision status model. *Journal of Counseling Psychology*, 39(1), 71–80.
- Wyche, S., Sengers, P., & Grinter, R. E. (2006). Historical analysis: Using the past to design the future. In P. Dourish & A. Friday (Eds.). *UbiComp 2006: Ubiquitous computing* (pp. 35–51). Springer.

#### Authors' Notes

David B. Spight is the director of Undergraduate Undeclared Advising at the University of California, Irvine. Previously, he served as the assistant dean for Academic Advising and Career Counseling in the School of Undergraduate Studies at the University of Texas at Austin. He earned his Bachelor of Arts in history from Truman State University, Master of Arts in Educational Policy and Administration from the

University of Minnesota-Twin Cities, and Doctor of Education in Higher Education Administration from the University of Alabama. His research interests include undecided/exploratory students, first-generation students, college student persistence and retention, and integrating academic advising and career advising. Correspondence concerning this article should be addressed to David Spight, 256 Aldrich Hall, Irvine, CA 92697. Contact: dspight@uci.edu.

Deirdre Mooney is an academic advisor for Exploratory Students in the Student Success Centre at the University of Calgary. Prior to her position in postsecondary advising, she taught high school social studies in Calgary, Canada and in Bonn, Germany. She earned a Bachelor of General Studies with a Minor in Educational Studies, a Bachelor of Education, and a Master of Education in Adult Learning and Higher Education from the University of Calgary. Her research interests include undecided/exploratory students, equitable/inclusive practices/programming for undecided/exploratory students, the integration of coaching practices into academic and career advising, and assessment of academic advising. Correspondence concerning this article should be addressed to Deirdre Mooney, 368F TDFL, 2500 University Dr. NW, Calgary, AB T2N 1N4. Contact: dmooney@ucalgary.ca.

Rachael Orr is the interim director for Student Success Initiatives at the University of Missouri-Columbia. Prior to this role, she served as the Assistant Dean for Advising in the College of Arts & Science and oversaw the Office of Academic Exploration and Advising Services. She earned a Bachelor of Arts in Biology from Central Methodist University, and a Master of Arts and Doctor of Philosophy in Educational Leadership and Policy Analysis from the University of Missouri-Columbia. Her research interests include undecided/exploratory students, the integration of academic advising and career development, first-generation students, and student success technologies. Correspondence concerning this article should be addressed to Rachael Orr, 022 Student Success Center, University of Missouri-Columbia, Columbia, MO 65211. Contact: orrre@missouri.edu.