CAREER DECISION MAKING AND
COMMUNITY COLLEGE NONCREDIT STUDENTS:

Lessons from the Literature

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SMLR was originally established by an act of the New Jersey legislature in 1947 as the Institute of Management and Labor Relations. Like its counterparts created in other large industrial states at the same time, the Institute was chartered to promote new forms of labor-management cooperation following the industrial unrest that occurred at the end of World War II. It officially became a school at the flagship campus of the State University of New Jersey in New Brunswick/Piscataway in 1994. For more information, visit smlr.rutgers.edu.

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Introduction

Career decision making is a complicated process navigated throughout the life course. It is made even more complicated by the changing labor market and a lack of good information on the innumerable options for career-related education and training. Ongoing changes in the labor market due to globalization and automation as well as unprecedented changes associated with the coronavirus pandemic have caused countless individuals to lose jobs or decide to change careers in search of better opportunity (Fouad & Bynner, 2008; Strada, 2020). For youth starting out their career, the process of finding a pathway in this context can be a difficult and extended transition (Fouad & Bynner, 2008; Arnet, 2000). To manage these transitions, many individuals are interested in education and training programs that can help them quickly enter, adapt to, or advance in the new workforce landscape (Strada, 2020). Noncredit programs at community college are of particular interest to this population, as they provide opportunities for individuals to gain valuable nondegree credentials, such as certificates, certifications, and licensures, in a relatively short amount of time.

Over nearly 500,000 non-degree credentials are offered nationally, and with limited information on their quality, individuals are left to navigate a sea of education and training options on their own (Credential Engine, 2019). Despite the need for this information, educational institutions have not been intentionally designed to help individuals make decisions about education and careers in the context of these labor market changes (Fouad & Bynner, 2008). Little is known about how individuals navigate these options in terms of what they value, what influences their choices, and how they approach the process of decision making. If institutions are to improve information and supports for career navigation,

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understanding how individuals make decisions about programs and the careers they lead to is foundational.

Career transitions and their related decisions are complex and multidimensional across all stages of life. For both youth seeking to find a pathway and adults returning to education, these transitions and decisions are complex. Low-income youth and adults in particular often have family responsibilities and financial obligations that can be constraints to their pursuit of education (Packard & Babineau, 2009). Choices can be limited by the accessibility of program options available in their geographical area and by a lack of information on both the options available and their quality. People of color face additional barriers reflecting the ongoing legacies of institutional discrimination as well as societal stereotypes and bias impacting career exploration, experiences, and anticipated outcomes (Worthington et al., 2005). Women, older workers, and people with disabilities also face societal forces of discrimination and bias that impact their career decision-making processes.

To shed light on how potential students navigate community college noncredit programs, this paper seeks to provide a framework for examining a few key questions:

- How do learners, particularly low-income adults of color, make decisions about education and careers? How do they come to the decision to enroll in community college noncredit programs?
- How do the institutional structures of community colleges influence the decision making of learners, particularly low-income adults of color, to enroll in community college noncredit programs?

To this end, the paper examines literature on career decisions, how findings might vary in studies across the life course, and how the literature applies to noncredit programs. The paper begins with a broad overview of theoretical ideas about career decision making that draws on literature from multiple fields. This is followed by a discussion of a framework based in pragmatic rationality that is aimed at providing a decision-making roadmap for noncredit students. The paper then examines the literature on career transitions focused on stages in the life course from youth through adulthood, decision making about educational pathways, and what is known specifically about learners in community college noncredit education. The paper concludes by examining the implications of its findings for community college noncredit education programs and suggesting future directions for research.

An Overview of Career Decision-Making Perspectives

Numerous fields have sought to understand career decision making, each offering a different perspective to help shed light on the same complex phenomenon. They vary in their basic assumptions, including how they define and address *social context*, the degree to which they assume *rationality*, and what they consider as the *timeframe* for decisions. First, theoretical perspectives vary in their focus on the individual versus social determinants of decision making. Some perspectives assume that the individual is the primary locus of decision making, whereas others focus on the decision as part of a wider social environment shaping individual choices. Second, theoretical perspectives vary on the question of whether decision making is a rational process. Some perspectives assume that individuals make decisions based on a linear set of rational decisions. Others assume decisions are subject to more subjective, idiosyncratic, or synchronistic events and decisions. Finally, the timeframe for examining decision making

varies across perspectives. Some perspectives focus on a decision at a particular point in time guided by the idea of the "match" or how individuals' characteristics and preferences align with a particular career. Others focus on a longer-term time frame and the set of processes leading up to a decision point, sometimes over the course of an entire lifetime (Patton & McMahon, 2014; Osipow, 1990). What follows is a brief overview of major theoretical perspectives on career decision making and their relative orientation on each of these assumptions.

Traditional economics maintains a focus on the individual and rational choice at a single point in time. In the context of this report, this translates to the idea that individuals examine information and make rational decisions based on information present at the moment of making a decision. In this view, individuals make choices about majors and careers based on which will maximize their ability to be successful and attain high earnings (Becker, 1994; Stinebrickner & Stinebrickner, 2013; Arcidiacono et al., 2010). Similarly, psychology's *person-environment fit theory* focuses on decision making based on a rational, individualized match between personality and work. Here, the emphasis on the individual's pursuit of financial success is replaced by the individuals' pursuit of personal fulfillment in a career as the rational choice driving the decision-making process (Holland, 1985).

Challenging the focus on rationality in decision making, researchers working in *behavioral economics* and *cognitive psychology* have pointed out that people face certain cognitive limitations to processing information while making decisions (Kahneman, 2011). Three of these limitations are key to this discussion: too much information can be overwhelming and lead to paralysis; information gathering can be selective and biased; and choices are often framed by

institutional structures. Such perspectives challenge traditional rational choice models to suggest a model that incorporates idiosyncrasies of decision making.

Rather than focus on decision making as an occurrence that happens at a single point in time, some theories focus on decision making as an ongoing process. *Happenstance learning theory* focuses on learning experiences people encounter through planned exploratory activities or unplanned day-to-day activities that lead to the acquisition of skills, knowledge, and beliefs over time, and which shape future actions (Krumboltz, 2009). In this view, individuals can seek out circumstances or events where they are likely to have chance encounters leading to learning and career development that can shape decisions they make in the future. Similarly, *occupational engagement* focuses on processes through which individuals gather information and experiences to explore career options and adapt to the ever-changing economy (Krieshok et al., 2009).

Social cognitive career theory also focuses on decision making as an ongoing iterative process. Ideas that are internal to the individual are translated into actions in the world, which then lead back to revisions in the individual's internal ideas (Lent, Brown, and Hackett, 2000; Lent, Brown, & Hackett, 1994). Individuals have a sense of self-efficacy that leads to thoughts about expected outcomes and, eventually, to action. Action then provides feedback on performance, which informs self-efficacy and outcomes expectations and leads to either a revision or confirmation of interests. This model relies largely on the assumption of rational decision making by individuals to provide a perspective for understanding the ongoing iterative process of decision making.

A longer-term perspective comes from *life course theory*, which focuses on the evolution of decision making over time. In this view, career decisions are better understood as a series of

choices over time rather than as one choice made early in life (Fouad & Bynner, 2008). Life course theory in career development focuses on self-concept over a life span, outlining several stages of career development that reflect the roles people play, how the roles interrelate, and how individuals make decisions at each point (Super, 1980). These models can provide a template for how individuals make sense of their career options and conduct exploration of these options over the lifespan but they have been limited by the assumptions they make about what a "typical" life course is.

The *psychology of working* provides a perspective on career decision making in the context of the life course by examining three key functions of work (Blustein, 2008). First, it serves a need for *survival* by providing access to resources. Second, it provides for *relatedness* in terms of access to informal and structured interactions and connections with other people and the wider world. Third, it provides for *self-determination* or the ability to engage and be productive with autonomy and competence.

Sociological perspectives differ from other perspectives in their focus on career decision making in a social context. Individuals' expectations about what is possible for them are often set by social class and restricted by structural qualities such as economic resources and risk tolerance, access to quality information, and experiences of discrimination (Dougherty, 2018). Through socialization, parents convey work values and aspirations to children at various stages of development, particularly during adolescence (Mortimer et al., 1996; Johnson et al., 2019). Further, education provides socializing experiences that prepare students to enter particular occupational roles through identity formation processes that sometimes reproduce social structures (Bowles & Gintis, 2002; Meyer, 1977; Kaufman & Feldman, 2004; Binder et al., 2016).

Decision-making processes can be shaped by social context in several other ways including the number of options a person considers, time pressures on the decision, what decision options are seen as the default, and the use of shortcuts in decision making (Bruch & Feinberg, 2017; Stevens et al., 2018). *Ecological models* take a wider view, examining multiple levels of influence including individual (e.g., interests, needs, values, personality, abilities, self-efficacy, and aspirations), group (e.g., gender, race/ethnicity, family relationships, role models, social class, religion, and sexual orientation), and societal (e.g., acculturation, cultural values, opportunity structure, discrimination, schooling, barriers, and labor market) (Fouad & Kantamneni, 2008).
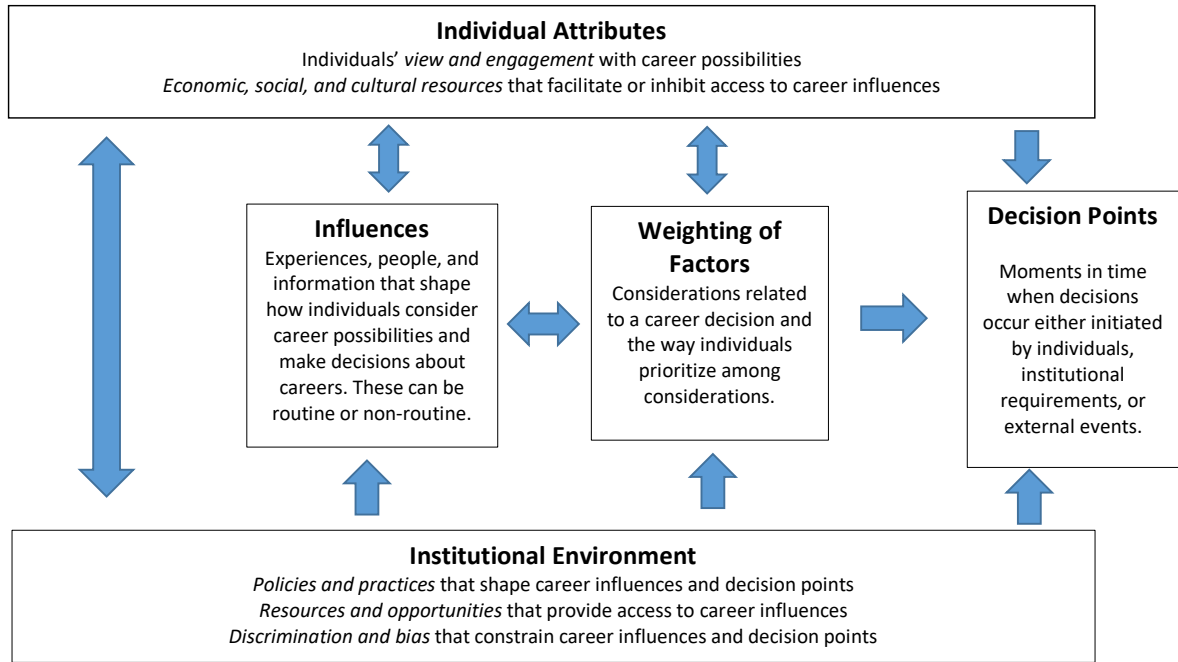
Among sociological perspectives, *pragmatic rationality* – also referred to as *careership theory* – offers a perspective on career decision making that incorporates many of the multidisciplinary concepts already discussed in this report. It incorporates individual action and social-structural influences, rational and nonrational approaches, and life course versus point-in-time decisions (Hodkinson, 2008; Hodkinson & Sparkes, 1997). Rooted in the sociological perspective of Pierre Bourdieu (1984), this perspective recognizes that because individuals' dispositions are created within social structures, individual action is highly embedded within one's position in society. It also recognizes that career decision making occurs over time through periods of routine activity that are punctured by various "turning points" when individuals choose or are forced to make decisions. Further, this perspective recognizes that individuals do not make fully informed, rational decisions. Rather, they make decisions based on strongly felt but often unarticulated notions that are often based on partial information, related to others including serendipity, and relative to an individual's position within a social environment (Bourdieu 1984).

A Comprehensive Model for Career Decision Making

Looking across perspectives, an understanding of the career decision-making process must shed light on the experiences of a full range of individual and social contexts. Decisions about careers are both highly individual and profoundly influenced by society. The institutional environment in which an individual is situated, as well as their individual attributes and resources, plays an important role in decision making. Both are heavily shaped by social context including gender, race, class, age, and disability status. These elements, along with chance, lead individuals to certain influences that shape how they weigh various factors when they are faced with a particular decision point. At the same time, decision making is both a process that occurs over time as well as a moment-in-time occurrence. Models of decision making must move beyond those based traditional white, male experiences that assume family is separate, decisions are individual, work is central, decision making is rational, and the labor market is open (Cook et al., 2002; Worthington et al., 2005).

Drawing most directly on pragmatic rationality and informed by other perspectives, Figure 1 depicts a model of decision making focused on processes around a particular decision. Pragmatic rationality moves the focus of theory beyond simple examination of specific skills or traits or preferences to examine the wider context in which career decision making occurs. The sections that follow describe each key element depicted in the model.

Individual Attributes
Individuals' *view and engagement* with career possibilities
Economic, social, and cultural resources that facilitate or inhibit access to career influences

Influences
Experiences, people, and information that shape how individuals consider career possibilities and make decisions about careers. These can be routine or non-routine.

Weighting of Factors
Considerations related to a career decision and the way individuals prioritize among considerations.

Decision Points
Moments in time when decisions occur either initiated by individuals, institutional requirements, or external events.

Institutional Environment
Policies and practices that shape career influences and decision points
Resources and opportunities that provide access to career influences
Discrimination and bias that constrain career influences and decision points

Individual Characteristics. Individuals' views of what is possible is inherently embedded in social context. Individuals form images of occupations and what those occupations entail as well as perceptions of how they fit with and can access these occupations. They also possess a broader sense of what is possible for themselves (or "habitus") based on their experiences in their social context (Bourdieu, 1984). Socialization through messages individuals receive from family, culture, and society can weigh heavily, creating aspirations and expectations, shaping ideas of what is possible (Hodkinson, 2008; Hodkinson & Sparkes, 1997). What individuals do and think can be shaped by the social constructs of race, gender, social class, and disability, as research on the impact of stereotypes demonstrates (Steele, 2010; Kosiewicz & Ngo, 2020). People can come to believe they are better at certain occupations based on "traditional" ideas about gender or race (Rojewski, 2005). These beliefs emerge based on socialization, just as

aspirations can result from experiences with institutional discrimination. At the same time, individuals have varying levels of self-efficacy and engagement in the career decision-making process (Krieshok et al., 2009; Lent, Brown & Hackett, 1994). How they seek out opportunities and information is reflective of both their social environment and their personal dispositions (Krieshok et al., 2009; Dougherty, 2018). At the same time, individuals have varying degrees of access to financial resources, knowledge of opportunities, social networks, and cultural know-how (Hodkinson, 2008; Hodkinson & Sparkes, 1997). These resources, or forms of *capital*, influence the options they consider as part of their decision making (Bourdieu, 1984). They may also have factors in their lives, such as family responsibilities, that can shape and constrain decision making.

Institutional Environment. The institutional environment shapes decision making by forming the structures and opportunities for choices in ways that are often rooted in cultural assumptions and practices that advantage individuals from traditionally dominant groups (Bourdieu, 1984). Institutional policies and practices shape the opportunities available to individuals by forming the structures within which individuals consider options and form choice sets (Dougherty, 2018; Hardin, 2008; Atkins, 2017). For educational institutions, these structures include the types of programs offered, their accessibility, and the guidance available relative to these programs (Bailey, Jaggers & Jenkins, 2015). Institutions also have varying levels of resources and opportunities available to individuals (Fouad & Bynner, 2008). The programs that educational institutions offer and the supports available to students are determined by funding and the presence or absence of an institutional commitment to equity that can make opportunities more or less accessible to students. Institutions bring with them legacies of

discrimination, implicit racism, and ongoing microaggressions that affect both students and faculty of color and limit individual options and choices in education and the labor market (Quillian et al., 2017; Worthington et al., 2005; McGee, 2020; Minikel-Lacocque, 2013; Applebaum, 2019).

Chance. Decision making about majors and careers can be influenced by chance as people find themselves influenced by unexpected events. At the same time, chance is not entirely random; in many ways, it is shaped by a person's social context (Hodkinson, 2008; Hodkinson & Sparkes, 1997). For example, social networks lead to chance encounters, but social networks are not randomly distributed and can both expand or limit opportunities (Granovetter, 1983). Individual engagement can foster more chance encounters as a person seeks out environments that can lead to serendipitous meetings and experiences (Krumboltz, 2009).

Influences. Influences can include a variety of inputs, including information, experiences, and people. *Information* includes official occupational sources, websites, and other internet resources, as well as informal discussion boards; it can also include college-provided informational resources. *Experiences* include a range of activities including internships, jobs, extracurricular activities, and community service. *People* include those from whom individuals seek advice or those they look to as models, including mentors, faculty, friends, parents, and other role models (Hallqvist, 2012). Influences can accumulate over time, continually guide an individual's choices, and provide feedback and adjustment to decisions in the short-term (Lent et al., 1994; Hodkinson, 2008; Hodkinson & Sparkes, 1997). They can affect decision making by confirming or reinforcing a decision, contradicting a decision already made, socializing or

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confirming an identity, or causing dissonance by creating the desire for an identity that cannot be obtained (Hodkinson, 2008; Hodkinson & Sparkes, 1997). Influences can also include negative experiences such as limited labor market opportunities and discrimination that can shape individuals' decisions (Worthington et al., 2005).

Factors. Individuals make career decisions based on several potential factors. These vary by perspective and can be rooted in different levels including the individual, family, and society (Fouad & Kantamneni, 2008). Individuals may assess and balance the importance of these factors differently by considering some and not others or prioritizing some over others. How individuals balance various factors related to their career decision making may vary across generations (Kuron et al., 2015). Choices may be more or less certain as individuals assess and balance multiple factors. Decisions are fluid and evolving – and at various points in time the status of a decision may range between solid and exploratory (Krumbolz, 1992).

According to multiple perspectives, an individual's *ability* is an important factor in career decision making. Ability may play a role in matching with career requirements (person-environment fit), selecting a career (economic-human capital), or driving the concept of self-efficacy in terms of what individuals believe they are good at (social cognitive career theory) (Holland, 1985; Lent et al., 1994; Becker, 1994; Stinebrickner & Stinebrickner, 2013; Arcidiacono et al., 2010). Alternately, *expected outcomes* are often a central motivating factor – particularly earnings, but also potential social and personal outcomes (Lent et al., 1994; Becker, 1994; Stinebrickner & Stinebrickner, 2013; Arcidiacono et al., 2010). Further, *interests or preferences* – what individuals enjoy doing – are important factors (person-environment fit and economic theories), and these interests may be shaped by an individual's ability to perform a task and its

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impact on their expected outcomes (Lent et al., 1994; Becker, 1994; Stinebrickner &

Stinebrickner, 2013; Arcidiacono et al., 2010).

Decision Point. Decisions occur at *turning points*, or specific points in time, in response to

varying motivations (Hodkinson, 2008; Hodkinson & Sparkes, 1997). Some are structured by

institutions (such as declaring a major in a particular year of school), others are forced by

external events (such as a job layoff), and others are self-initiated based on an individuals' range

of interests (Hodkinson, 2008; Hodkinson & Sparkes, 1997; Ross, 1988). Optimal circumstances

for a decision occur when the decision is voluntary and adequate resources and capabilities are

present (Fouad & Bynner, 2008). But this is often not the case with involuntary turning points,

such as reentering the labor market after a divorce or layoff. In these circumstances, individuals

may not have time to gather sufficient information to consider their full range of options or

have adequate time to prepare or gather supports (Fouad & Bynner, 2008).

At any decision point, individuals make choices that may be rational or idiosyncratic

(Hodkinson, 2008; Hodkinson & Sparkes, 1997). They may base decisions on the influence of

their families, peers, and subcultures, as well as their emerging or defined identities. At the

same time, they also make choices based on instrumental goals including labor market success

and their perceptions of the costs and benefits of various options. The choice set they consider is

formed both individually and through their social context, and can be broad or narrow, as they

explore many options, a few, or even just one.

Timeframe. Decision points vary depending on the individual and the circumstance. At a

given moment in time, a person might be about to arrive at a decision point, have just made a

decision, or be in the midst of making one (Hodkinson, 2008; Hodkinson & Sparkes, 1997). How

individuals conceive of the *horizon for action*, or the timeframe for making decisions, varies based on their social environment and what they view is possible. They may have periods of routine activity when they experience influences that are punctuated by decision points that can be influenced for better or for worse by chance events (Hodkinson, 2008; Hodkinson & Sparkes, 1997; Hancock, 2009). The timeframe ultimately impacts their approach to the decision by providing the arena within which action can be taken (Hodkinson, 2008; Hodkinson & Sparkes, 1997). This timeframe varies by individual and their circumstances over a life course. Figure 2 illustrates a timeframe for decision making.

Figure 2: An Example Timeframe for Decision Making
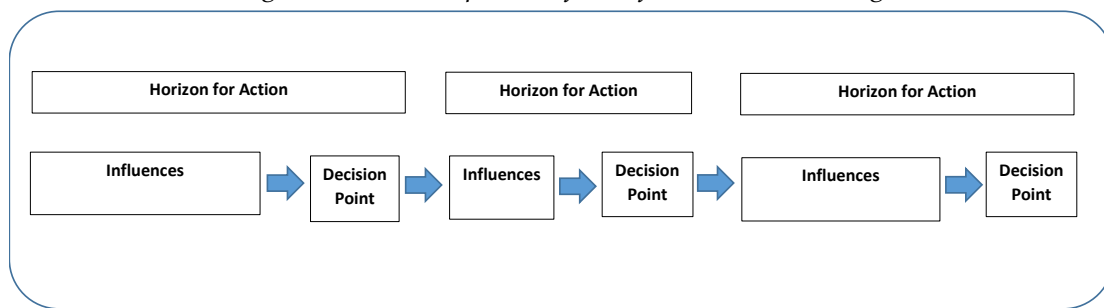
Career Decision Making Over the Life Course

During the life course, individuals encounter numerous career transitions. These typically start when they transition from school to work, and later from working one job to another job, and/or from not working to working (Fouad & Bynner, 2008). In the current economy, individuals expect more uncertainty and more transitions as jobs are eliminated or newly created (Trevor-Roberts, 2006; Autor et al., 2019; Savickas, 2010). The implications of these changes are felt for individuals across the life course, though they are felt in different ways depending on the stage. Rather than assume one constant process of decision making across the life course, it is important to recognize key areas of divergence – in particular, the

variance for youth of color and adults of color. As career decision making varies across the life course, it is also intertwined with educational decision making, where individuals make choices about whether to pursue educational programs that can lead to particular careers. While adults may be more likely to have interest in noncredit programs than youth, both may consider these programs albeit through different perspectives.

For youth, the transition period to adulthood has become more extended (Fouad & Bynner, 2008; Arnett, 2000). This extended period of "emerging adulthood" means that the transition from school to work takes longer and, for many young people, is fraught with difficulty. This transition period can be particularly challenging and confusing for youth who do not aspire to get a college degree (Rosenbaum et al., 2015). For those who do not directly enroll in college after high school, as well as those who do not complete high school, it can be difficult to navigate the labor market and find a good career path without several years of floundering in the labor market. In general, making the transition to adulthood is difficult for students from lower socioeconomic backgrounds (Rojewski & Kim, 2003; Constantine et al., 2007; Rosenbaum et al., 2015).

Experiences during youth can have an important influence on aspirations. Young people come to determine what is possible for themselves by observing what is possible in their environment. Youth tend to hold high goals for work, including what opportunities and rewards are available in the labor market, and over time they adjust and readjust their expectations based on the realities of their experiences in the labor market (Johnson, 2001). For many youth from disadvantaged backgrounds, it is during the transition period from school to work when they are confronted with the reality of their limited opportunities (Johnson, 2002).

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Aspirations can be important for success, as young people with high aspirations and certainty about their goals can have more career success (Vuolo, Staff & Mortimer, 2012). Unfortunately for many youth of color and poor youth, developing and maintaining occupational aspirations are difficult in the face of multiple structural barriers, e.g., labor market discrimination, low expectations by schools, and a lack of job opportunities (Diemer & Blustein, 2007). In addition, research has shown that non-college-bound students – who, as a group, are less white and more challenged financially – tend to change their occupational aspirations often, while college-bound students are more likely to have more stable occupational aspirations (Rojweski & Kim, 2003). Without these established aspirations, marginalized youth may be more likely to be influenced by life events and end up changing their course as a result (Atkins, 2017).

Family of origin can have a significant influence on the career choices of young people (Bates, 2015). Youth turn to their families to guide career decisions more often than to other sources of guidance – through exploration, identity development, and aspirations (Whiston & Keller, 2004). Families embody and convey cultural outlooks and values– those from more collectivist cultures tend to prioritize careers that are consistent with family expectations, whereas youth raised in more individualistic cultures tend to prioritize personal interest and are more independent in their decision making (Akosah-Twumasi et al., 2018; Constantine et al., 2007). Cultural influences may promote a greater sense of obligation to family and a desire to remain in the same geographic area (Turley, 2009).

For Black and Latinx youth, the dominant assumptions around decision making miss important aspects of their experience. Their observations and experiences with discrimination, bias, and limited opportunities are likely to shape how they conceive their goals. For some, the

idea that education leads to success may not ring true based on the structural barriers in education and the workforce they have observed or directly experienced (Constantine et al., 2007). For those who seek education, there can be many complications, including pressure to disprove negative stereotypes, on-going microaggressions within institutions, stereotype threat related to academic performance, or conflict around assimilating with dominant culture (Constantine et al.; Steele, 2010; Sue, Capodilupo, & Holder, 2008; Ogbu, 2004). Working class young adults are more likely than those from higher-SES families to look for economic security rather than life satisfaction and purpose in their work (Fouad & Bynner, 2008; Blustein, 2002). They seek successful labor market outcomes and weigh relative costs and benefits of different pathways (Raffe, 2003).

Adults bring a different lens to career decision making than young people do. While education was once a marker of the transition to adulthood, that is no longer the case as adults return to school at various points in the life course (Hostetler et al., 2007). Regardless of changes in life course transitions, adults still face more complications associated with their life stage because they have more responsibilities as well as more experiences to consider when making career decisions.

Adults are more strongly impacted by external factors in their lives such as family obligations and financial responsibilities (Fouad & Bynner, 2008; Hardin, 2008). It is particularly important to consider their work transitions in tandem with other transitions and responsibilities. Although they might want to pursue a particular career, adults may at times have to make compromises and pursue a different career path due to family obligations or a lack of time, money, or skills (Packard & Babineau, 2009). Among these, time is a very salient

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issue, as adults, particularly women, balance multiple roles and obligations. Those who were able to navigate the transition back to school perceived fewer barriers and greater social supports as well as confidence in managing the responsibilities of being a student (Quimby & O'Brien, 2004). Adults who made the decision to return to school find that supports are particularly crucial for coping with and overcoming anxiety about the prospect of schooling (Hardin, 2008). Employment instability can also make transitions to further education more difficult (Elman & O'Rand, 2007). Given the multiple roles that adults hold, role integration, or how these different roles fit together, is an important element (Gross-Spector & Cinamon 2018).

Adults also have more life experience to draw from when making career decisions. They face – either voluntarily or involuntarily – various decision points where they must choose whether to leave a career and enter a new one or to continue along and advance in a particular career. Though they have more experiences to draw from than young people do in making their decisions, they still may need assistance in broadening and exploring ideas about potential career options (Owen et al., 2003). Dislocated workers sometimes view their past decisions with regret and seek to correct for them by pursuing education or career opportunities that will broaden their opportunities (Fouad et al., 2012; Packard & Babineau, 2009). At the same time, dislocated workers can be influenced in their decision making by traditional gender norms about occupations, as well as by their perceptions that opportunities are limited by their social class (Fouad et al., 2012). They may have to grapple with how to reconcile their return to school with prior attempts that may not have been successful (Hardin, 2008). Their career decision-making experiences accumulate as individuals make meaning of their career trajectory over the life span (Savickas, 2005).

Still, similar to youth, adults' career decisions are impacted by their family of origin.

Those with more disadvantage are less likely to successfully transition to pursue additional

education later in life (Elman & O'Rand, 2007). For adults in career transitions, the decision to

pursue additional education is related to the amount of support they received at home (McAtee

& Benshoff, 2006; Worthington et al., 2005). This is especially true for adults of color, who are

more likely to be affected by their families in their career development (Whiston & Keller, 2004).

Adults of color contend with stereotypes, bias, and micro-aggressions as they navigate the

experiences that shape their decision-making process.

Adults' varied experiences illustrate that decision making is not always linear. The

assumption that continuous enrollment is the only possible pathway to successful educational

attainment is not accurate. The case for such a claim is particularly weak for students whose

educational opportunities are more limited, as research has demonstrated the potential that

nontraditional pathways can result in educational attainment for this group (Astone et al.,

2000). Adults can pursue many different potential pathways to achieve the same end, and they

need institutional systems that allow for and support these multiple pathways.

Community College Noncredit Programs and Students

Community college noncredit programs serve diverse needs. These include occupational

training paid for by individuals, occupational training paid for by employers, personal interest

pursuits, and pre-college remedial education (D'Amico, Morgan, Robertson & Houchins, 2014).

As such, these programs have the potential to attract students in various life stages with a

variety of goals and educational backgrounds (Van Noy, Jacobs, Korey, Bailey & Hughes, 2008).

Individuals may seek specific occupational skills and credentials with the goal of entering a

career or changing to a new career. They typically need particular industry credentials as well as the opportunity to continue their education. Incumbent workers may attend noncredit programs through their employer with the goal of gaining skills that are immediately applicable to their work so they can advance in their current career. They often need the specific skill set, industry credentials, and/or continuing education units (CEUs). With these goals and needs in mind, community college noncredit programs can either provide individuals with the full set of competencies needed for occupational entry or provide individuals with a subset of particular skills needed to successfully enter or advance an occupation.

Given the tight link between noncredit programs and occupational goals, when making the decision to enter a noncredit program, individuals are typically choosing a career at the same time as they are choosing an educational program. Among noncredit programs that prepare individuals to enter a career, there are multiple types of potential pathways for individuals to consider based on the characteristics of the occupation. Among middle skills jobs often found in noncredit programs, three broad types of occupations with distinct pathways exist: lifetime jobs, springboard jobs, and static jobs (Lamback, Gerwin & Restuccia, 2021). Lifetime jobs offer careers that are well-paid and have long-term stability. Springboard jobs offer the opportunity for career advancement into better paying jobs. Static jobs are not well-paid and do not lead to well-paid jobs. While other factors influence an individuals' choice to enter a career, these basic occupational characteristics are foundational for individuals to understand when choosing to enroll in a noncredit program.

Along with understanding students' goals, it is essential to understand the range of students' educational backgrounds, since both factors can drive how students approach the

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decision-making process about enrolling in a noncredit program. The prior education of noncredit students can vary substantially – some have little or no postsecondary education, while others have college and graduate degrees. For those without a lot of prior education, noncredit programs offer the benefit of accessibility. Noncredit programs typically do not have the formal admissions processes or requirements for math and English proficiency that credit-bearing programs have. By removing these potential barriers to enrollment, noncredit programs offer an accessible pathway for those who lack confidence or experience with traditional education (Grubb et al., 2003). Noncredit programs and their associated non-degree credentials can offer an entry point into a career pathway that allows students to pursue a job while continuing to pursue an education aimed at advancing in a career (Education Strategy Group, 2020).

On the other hand, there is a concern that low-income students and students of color may be funneled into less prestigious and lucrative workforce-oriented educational programs (Brint & Karabel, 1989; Advance CTE, 2018). While noncredit programs can lead to well-paying jobs, earnings from short-term credentials vary widely, and individuals need more information to make informed choices about whether to pursue non-degree credentials relative to other options (Carnevale et al., 2020). For students potentially interested in a bachelor's degree, noncredit programs can be a diversion from this goal if those programs do not offer clear entry points to further, credit-bearing education (Education Strategy Group, 2020). The same ease of access that makes noncredit programs an ideal entry point for some students could make them a hindrance that keeps other students from enrolling in degree programs.

The needs of students that lack postsecondary education vary across life stages. Due to career transitions forced by shifts in the labor market, noncredit programs may become more attractive in adulthood than they were during youth. For youth struggling to transition to work, however, noncredit programs can offer a potential pathway to better paying jobs and careers. As noted above, both educational backgrounds and goals combine to determine potential students' level of interest in noncredit programs. Whether they seek to enter a career, advance in a career, or change careers will impact their choices and what they seek in a program.

Apart from what is broadly known about noncredit students that can be inferred from program characteristics, little research exists on actual community college noncredit students. Much of this is because limited data are collected on or by noncredit programs in general. Recent analyses using administrative records data indicate that students in noncredit community college programs tend to be adult learners from lower socioeconomic backgrounds (Xu & Ran, 2019). These data indicate that compared to those in for-credit programs, community college noncredit students tend to be older (students average age 34 versus age 22 at for-credit schools), have lower incomes ($49,756 versus $57,096), and are much less likely to have a high school diploma (23.1% versus 93%). In addition, student populations at community colleges tend to include more African-American, Hispanic, and Asian students (25.5% versus 22.4% African-American; 15.5% versus 3.8% Hispanic; 4.6% versus 2.1%) and fewer White students (49.5% versus 65.6%). The same data reveal that very few noncredit students transition into credit programs (2.6%).

Career Decision Making in the Context of Noncredit Programs

The comprehensive model for decision making discussed earlier provides a lens through which to examine career decision making in the context of noncredit programs. Each of the key elements of the model are discussed below and applied to the context of noncredit programs and their students, particularly low-income adults and youth of color.

Individual Characteristics. Given the lack of data on students in noncredit programs, basic information on students' background demographics and educational levels is needed, as well as information on their outlook and career aspirations. Based on available data, noncredit students tend to be older on average and thus are more likely to approach decision making with issues and concerns typical of the adult population. They are likely to have more family responsibilities to balance, as well as prior educational and work experience, influencing their decision making. Those who come from low-income backgrounds may have outlooks rooted especially deeply in their family background and prior educational experiences; these may shape their sense of what is possible as they make current career decisions. Low-income students may feel pressure to finish quickly, so they may compromise more in their career choices (Packard & Babineau, 2009).

Institutional Environment. How community colleges structure noncredit programs and provide information and advising is a central issue in the decision-making process. Noncredit programs in many colleges are at the periphery of college structures, operating separately from credit programs and often isolated from major institutional reforms, such as guided pathways, that are designed to provide more clarity for students. Major questions include whether information on programs and their associated careers are available and clear; whether noncredit

programs offer advising to help students navigate program choices within noncredit programs and in the wider mix of credit-bearing programs at the college; and whether the institutional structures for determining which of these programs are offered ensure quality choices. The answers to these questions have major equity implications in understanding how community college noncredit programs can help reduce versus exacerbate inequity. Adults need supports from educational institutions to help with their transitions. These supports should address the following: accessibility of the timing of courses and services, academic resources, advisors on college processes and procedures, clearer web resources, dedicated and trained advisors, and articulated pathways (Hardin, 2008).

Influences. Potential influences that lead individuals to consider enrolling in community college noncredit programs include family, friends, referrals from the workforce system, and web searches. Older adults bring ever wider ranges of experiences from prior jobs and education to bear on their thinking about future career decisions. Alongside those influences, decision making is affected by what individuals have learned about noncredit programs, what their expectations are, their understanding of noncredit pathways, and their potential educational and economic outcomes.

Factors. The decision to enroll in a noncredit community college program will ultimately result from individuals' weighing of a variety of factors about both the program and the career it leads to as well as how they prioritize these factors. Since noncredit programs are typically very tightly linked to careers, the choice to pursue a noncredit program is inherently tied to the choice to pursue a career. Noncredit enrollment decisions are further shaped by factors related to individuals' social context including their view of what is possible, the constraints they face,

the resources they have to draw on in making career choices, their experiences with discrimination, and their life stage.

Decision Point. Some noncredit learners are forced to make a decision by an external event such as a layoff, whereas others may choose to enroll in a noncredit program based on a personal decision to change or advance their career. Their choice set will depend on their approach to decision making and how much they research and compare available programs.

Decision Making about Educational Pathways

While individuals wrestle with the question of whether a career is good for them to pursue, they are also often faced with the decision of whether a program and/or credential are good for them. Research on decision making about college going provides some important insights on decisions focused on programs and credentials. Attempts to discern credential quality can provide a guidepost to make sense of this process.

Common issues in the decision making process about attending college are financial aid, academic preparation, and information availability about financial aid and academic preparation (Perna, 2006; Dougerty, 2018). Perna (2006) offers a conceptual model for this process that combines a human capital perspective focused on weighting the economic costs and benefits of college with a status attainment process that focuses on academic preparation and aspirations in their organizational context. Dougherty (2018) pushes further on implications of college choice to demonstrate the role of choice in creating and legitimating social inequality. The focus on academic preparation and aspirations could be defined as individual preference or taste and originate from a focus on the individual. Structural issues operate with economic resources of financial aid, as well as the knowledge required to successfully complete the

college search and application process. Location and geography also play a significant role in college choice, particularly for students of color and low-income students, who tend to choose educational institutions that are closer to home (Lopez-Turley, 2009).

For adults considering community college programs, these issues are even more acute and focused on particular concerns. Based on a national survey of adults who were considering enrolling in college, some priorities and concerns are clear (Hegelskamp, Schleifer & DiStasi, 2013). The main goal is to get education to advance in the labor market. They have concerns about cost, balancing family needs, and basic skills required. They want high-quality instructors, job placement, and real-world experience. They get information from their immediate social networks, websites, and ads, but would welcome more information from an expert they could talk with. They are less compelled by information on official statistics like graduation rates and do not initially have concerns about for-profit providers. In addition, adults at community colleges can have concerns with the complexity of the application process, a lack of understanding about college expectations and career possibilities, as well as challenges with financial aid. Adults face a multitude of concerns in the decision to return to school including financial, childcare, lack of confidence, need to work, family pressures, role conflicts, and challenges juggling responsibilities (Osborne, Marks & Turner, 2004; Mercer & Saunders, 2004). At the same time, their educational choices are typically constrained by factors, like class and race, that shape what individuals consider possible for themselves in terms of education (Reay, Davies, David & Ball, 2001).

Recent findings since the pandemic have highlighted adults' interests and priorities for education. Their interest in programs like community college noncredit workforce programs

has increased; over two-thirds who are considering education indicating they would prefer a nondegree pathway up from one half in the prior year (Strada, 2020a). Yet only one-third indicate they understand well their potential options for pathways, skills, and educational programs (Strada, 2020a). They often report they are seeking that these programs are related to their work and suited to their personal needs (Strada, 2020b).

Because noncredit programs are often so focused on preparation for particular occupations, by the time a student enrolls in a noncredit program, they have typically made their career decision. It is not clear how they come to make those decisions, as well as how they come to decide to enroll in the community college noncredit program to prepare for that occupation, as opposed to another educational provider. Additionally, it is not clear how noncredit students view the educational and career choices they face after their enrollment in a noncredit program.

Conclusion and Future Research

Existing literature across multiple fields provides broad ways to examine how adults make decisions about community college noncredit programs and offers a general model for understanding the key elements of decision making. The experience of deciding on an educational program and a career is both highly personal and inherently social. The decision-making process of many community college noncredit learners is intertwined with their experiences as low-income adults of color. Colleges as institutions need to consider ways to adapt their structures to support the needs of these students as they seek to navigate these programs and find pathways to meaningful careers. This review provides some general insights on the assumptions around career decision making that can inform policy and practice:

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- *Recognize the complexity of decision making and the limits to assumptions of rationality.* While providing information is one potential approach to improving decision making that can help students, it may not alone be enough. Students rely on other influences when making decisions that have to do with their personal experiences and people they know and interact with. These influences may or may not provide accurate information or information that students rationally collect and assess before making a decision. Their institutional context as well as chance can have a role in shaping their decisions, as institutions implicitly shape choices for students based on the programs they offer and how they structure these programs.

- *Recognize that decision making is an on-going process that institutions can influence.* Individuals' decisions are cumulative, occurring over time and influencing one another. Institutions can help share decisions through the information they make available, as well as the people who engage with students and the experiences that are available to students to engage with. Institutions can help guide students' decision making by providing access to experiences and people that can help inform them.

- *Recognize there is no one size fits all approach to supporting students' career decision making.* Individuals vary in their personal approach to decision making in terms of their level of engagement and view of career possibilities. Depending on their life stage and resources available to them, students will have had varying experiences and certainty on their career decisions. In providing advising and support, it is importance to meet students where they are at, using a more customized approach to advising.

- *Recognize that low-income adults of color bring unique experiences to the career decision making process.* Life experiences are particularly important in the decision making of adults and shape how they prioritize different factors in the career decision making process, relative to other individuals. Family responsibilities as well as prior educational and career experiences are formative. Discrimination, bias, and micro-aggressions in their educational and career experiences, as well as differential access to resources can also have an impact on how students approach career decision making.

The existent literature points to these general issues and provides a point of departure for research aimed at expanding our understanding of students' actual experiences navigating these choices. Such future research will examine these issues directly with community college noncredit students to better understand the elements in the decision-making model. Research including surveys and interviews with noncredit students will help provide insights on their experiences. Ultimately these data will help identify ways that policy makers and practitioners can better address the needs of these learners who for so long have been unseen and underserved.

References

Advance CTE (2018). Understanding the Equity Challenge in CTE, Silver Spring, MD., Advance CTE.

Akosah-Twumasi, P., Emeto, T. I., Lindsay, D., Tsey, K., and Malau-Aduli, B. S. (2018). A systematic review of factors that influence youths career choices – the role of culture. *Frontiers in Education, 3*(58). http://doi.org/10.3389/feduc.2018.00058

Applebaum, B. (2019) Remediating campus climate: Implicit bias training is not enough. *Studies in Philosophy and Education, 38*(2), 129–141. http://doi.org/10.1007/S11217-018-9644-1

Arcidiacono, P., Hotz, V. J., & Kang, S. (2010). *Modeling college major choices using elicited measures of expectations and counterfactuals* (Working Paper No. 15729). National Bureau of Economic Research. http://doi.org/10.3386/w15729

Arnett, J. (2000). Emerging Adulthood: A theory of development from the late teens through the twenties. *American Psychologist.* 55, 5, 469-480.

Astone, N. M., Schoen, R., Ensminger, M. & Rothert, K. (2000). School reentry in early adulthood: The case of inner-city African Americans. *Sociology of Education, 73*(3), 133–154. https://doi.org/10.2307/2673213

Atkins, L. (2017). The odyssey: School to work transitions, serendipity and position in the field. *British Journal of Sociology of Education, 38*(5), 641–655. https://doi.org/10.1080/01425692.2015.1131146

Autor, D., Mindell, D., & Reynolds, E. (2019). *The work of the future: Shaping technology and institutions*. Cambridge, MA: Massachusetts Institute of Technology.

Bailey, T., Jaggers, S. & Jenkins D. (2015). *Redesigning America's Community Colleges: A Clearer Path to Student Success.* Harvard University Press.

Bates, C. W. (2015). The Influence of Family on the Career Interests and Choices of Youth. *International Journal of Education and Social Science, 2*(9), 67–72. http://www.ijessnet.com/uploades/volumes/1598622773.pdf

Becker, G. (1994). *Human capital: A theoretical and empirical analysis* (3rd ed.). Chicago, IL: University of Chicago Press. https://doi.org/10.7208/chicago/9780226041223.001.0001

Blustein, D. L. (2008). The role of work in psychological health and well-being: A conceptual, historical, and public policy perspective. *American psychologist, 63*(4), 228. https://doi.org/10.1037/0003-066X.63.4.228

Binder, A., Davis, D., & Bloom, N. (2016). Career funneling: How elite students learn to define and desire "prestigious" jobs. *Sociology of Education, 89*(1), 20–39. https://doi.org/10.1177/0038040715610883

Blustein, D. L., Chaves, A. P., Diemer, M. A., Gallagher, L. A., Marshall, K G., Sirin, S., & Bhuti, K. S. (2002). Voices of the forgotten half: The role of social class in the school-to-work transition. *Journal of Counseling Psychology, 49*(3), 311–323. http://doi.org/10.1037//0022-0167.49.3.311

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste.* Cambridge, MA: Harvard University Press.

Bowles, S., & Gintis, H. (2002). Schooling in capitalist America revisited. *Sociology of Education 75*(1), 1–18. https://doi.org/10.2307/3090251

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Brint, S., & Karabel, J. (1989). *The diverted dream: Community colleges and the promise of educational opportunity in America, 1900-1985*. New York, NY: Oxford University Press.

Bruch, E., & Feinberg, F. (2017). Decision-making processes in social contexts. *Annual Review of Sociology, 43*(1), 207–227. https://doi.org/10.1146/annurev-soc-060116-053622

Carnevale, A. P., Garcia, T. I., Ridley, N., & Quinn, M. Q. (2020). *The overlooked value of certificates and Associate's degrees: What students need to know before they go to college.* Washington, D.C.: Georgetown University Center on Education and the Workforce. https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/CEW-SubBA.pdf

Constantine, M. G., Kindaichi, M. M., & Miville, M. L. (2007). Factors influencing the educational and vocational transitions of Black and Latino high school students. Professional School Counseling, 10(3), 261–265. https://doi.org/10.5330/prsc.10.3.bg613873q5104226

Cook, E. P., Heppner, M. J., & O'Brien, K. M. (2002). Career development of women of color: Assumptions, conceptualizations and interventions from an ecological perspective. The Career Development Quarterly, 50(4), 291–305. https://doi.org/10.1002/j.2161-0045.2002.tb00574.x

Credential Engine. (2019, September). *Counting U.S. postsecondary and secondary credentials* [Report]. Washington, DC: author.

D'Amico, M., Morgan, G., Robertson, S., & Houchins, C. (2014). An exploration of noncredit

community college enrollments. *Journal of Continuing Higher Education, 62*(3), 152–162.

https://doi.org/10.1080/07377363.2014.953438

Diemer, M. A., & Blustein, D. L. Vocational hope and vocational identity: Urban adolescents'

career development. *Journal of Career Assessment, 15(*1), 98–118.

https://doi.org/10.1177/1069072706294528

Dougherty, K. (2018). *Higher education choice-making in the United States: Freedom, inequality,*

legitimation. London: Center for Global Higher Education.

Education Strategy Group. (2020). *A more unified community college: Strategies and resources to*

align non-credit and credit programs. Washington, D.C.: Author.

http://edstrategy.org/building-pathways-between-non-credit-and-credit-programs-where-

to-begin/

Fouad, N., and Bynner, J. (2008). Work transitions, *American Psychologist, 63*(4), 241–251.

https://doi.org/10.1037/0003-066x.63.4.241

Fouad, N., and Kantamneni, N. (2008). Contextual factors in vocational psychology:

Intersections of individual, group and societal dimensions. In S. D. Brown and R. W. Lent

(Eds.), *Handbook of Counseling Psychology* (4th Edition, p. 408–425). Hoboken, NJ: John

Wiley.

Fouad, N., Cotter, E., Carter, L., Bernfeld, S., Gray, I., & Liu, J. (2012). A qualitative study of the

dislocated working class, *Journal of Career Development*, 39, 3, 287-310.

Granovetter, M. (1983). The strength of weak ties: A network theory revisited. *Sociological*

Theory, 1, 201–233. https://doi.org/10.2307/202051

Grubb, N., Badway, N., & Bell, D. (2003). Community colleges and the equity agenda: The

potential of noncredit education. *The ANNALS of the American Academy of Political and Social*

Science, *586*(1), 218–240. https://doi.org/10.1177/0002716202250226

Hallqvist, A. (2012) Occupational transitions as a relational project. *Studies in Continuing*

Education, 34(2), 83–98. http://doi.org/10.1080/0158037X.2011.610300

Hardin, C. J. (2008). Adult students in higher education: A portrait of transitions (Special Issue

on The First Year and Beyond: Rethinking the Challenge of Collegiate Transition). *New*

Directions for Higher Education, Winter(144), 49–57. https://doi.org/10.1002/he.325

Hodkinson, P. (2008). *Understanding career decision-making and progression: Careership revisited*

(pp. 1–17). Woburn House, London.

Hodkinson, P., & Sparkes, A. C. (1997). Careership: A sociological theory of career decision

making. *British Journal of Sociology of Education, 18*(1), 29–44.

https://doi.org/10.1080/0142569970180102

Holland, J. (1985). *Making vocational choices: A theory of vocational personalities and work*

environments. Englewood, NJ: Prentice Hall.

Hostetler, A. J., Sweet, S., & Moen, P. (2007). Gendered career paths: A life course perspective on

returning to school. *Sex Roles 56*(1–2), 85–103. https://doi.org/10.1007/s11199-006-9150-8

Johnson, M., Mortimer, J., & Heckhausen, J. (2019). Work value transmission from parents to

children: Early socialization and delayed activation. *Work and Occupations, 47*(1), 83–119.

http://doi.org/10.1177/0730888419877445

Johnson, M. K. (2001). Change in job values during the transition to adulthood. *Work*

Occupations, 28(3), 315–345. https://doi.org/10.1177/0730888401028003004

Johnson, M. K. (2001). Change in job values during the transition to adulthood. *Work*

    Occupations, 28(3), 315–345. https://doi.org/10.1177/0730888401028003004

Kahneman, D. (2011). *Thinking fast and slow*. New York, NY: Farrar, Strauss and Giroux.

Kaufman, P., & Feldman, K. A. (2004). Forming identities in college: A sociological approach.

    Research in Higher Education, 45(5), 463–496.

    https://doi.org/10.1023/B:RIHE.0000032325.56126.29Kosiewicz, H., & Ngo, F. (2020). Giving

    community college students choice: The impact of self-placement in math courses.

    American Educational Research Journal, 57(3), 1358–1391.

    https://doi.org/10.3102/0002831219872500

Krieshok, T., Black, M., & McKay, R. (2009). Career decision making: The limits of rationality

    and the abundance of non-conscious processes. *Journal of Vocational Behavior, 75*(3). 275–290.

    https://doi.org/10.1016/j.jvb.2009.04.006

Krumboltz, J. (2009). The happenstance learning theory. *Journal of Career Assessment, 17*(2), 135–

    154. https://doi.org/10.1177/1069072708328861

Krumboltz, J. (1992, December). The wisdom of indecision. *Journal of Vocational Behavior, 41*(3),

    239–244.

Kuron, L. K. L., Lyons, S. T., Schweitzer, L., & Ng, E. S. W. (2015). Millennials' work values:

    Differences across the school to work transition. *Personnel Review, 44*(6), 991–1009.

    https://doi.org/10.1108/PR-01-2014-0024

Lamback, S., Gerwin, C. & Restuccia, D. (2021). When is a job just a job—and when can it launch

    a career? The real economic opportunities of middle-skill work, Boston, MA: Jobs for the

    Future.

Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a Unifying Social Cognitive Theory of

　　Career and Academic Interest, Choice, and Performance. *Journal of Vocational*

　　Behavior, 45(1), 79–122. https://doi.org/10.1006/jvbe.1994.1027

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual Supports and Barriers to Career

　　Choice: A social cognitive analysis, Journal of Counseling Psychology, 47, 1, 36-49.

Lopez-Turley, R. (2009). College Proximity: Mapping Access to Opportunity, *Sociology of*

　　Education, 82, 126-146.

McAtee, A., & Benshoff, J. (2006). Rural dislocated women in career transition: The importance

　　of supports and strategies. *Community College Journal of Research and Practice*, *30*(9), 697–714.

　　http://doi.org/ 10.1080/10668920500207858

McGee, E. O. (2020) Interrogating structural racism in STEM higher education. *Educational*

　　Researcher, 49(9), 633–644. https://doi.org/10.3102/0013189X20972718

Mercer, J, & Saunders, D. (2004). Accommodating change: the process of growth and

　　development amongst a mature student population, *Research in Post-Compulsory Education,*

　　9, 2, 283-300.

Meyer, J. W. (1977). The effects of education as an institution. *American Journal of Sociology, 83*(1),

　　55–77. https://doi.org/10.1086/226506

Minikel-Lacocque, J. (2013). Racism, college, and the power of words: Racial microaggressions

　　reconsidered. *American Educational Research Journal, 50*(3), 432–465.

　　https://doi.org/10.3102/0002831212468048

Mortimer, J., Pimentel, E., Ryu, S., Nash, K., & Lee, C. (1996). Part-time work and occupational

value formation in adolescence. *Social Forces, 74*(4), 1405–1418.

https://doi.org/10.2307/2580356

Osborne, M., MarksA., & Turner, E. (2004). Becoming a mature student: How adult applicants

weigh the advantages and disadvantages for higher education. *Higher Education*, 48, 291-

315.

Ogbu, J. (2004). Collective identity and the burden of "acting white" in Black history,

community, and education. *The Urban Review, 36*(1), 1–35.

https://doi.org/10.1023/B:URRE.0000042734.83194.f6

Osipow, S. (1990). Convergence in theories of career choice and development: Review and

prospect. *Journal of Vocational Behavior, 36*(2), 122–131. https://doi.org/10.1016/0001-

8791(90)90020-3

Packard, B. W. L., & Babineau, M. E. (2009). From drafter to engineer, doctor to nurse: An

examination of career compromise as renegotiated by working-class adults over time.

Journal of Career Development, 35(3), 207–227. https://doi.org/10.1177/0894845308327270

Patton, W., and McMahon, M. (2014). *Career development and systems theory: Connecting theory and

practice*. Boston, MA: Sense Publishers.

Quillian, L., Pager, D., Hexel, O., & Midtbøen, A. (2017, September 12). Meta-analysis of field

experiments shows no change in racial discrimination in hiring over time. *Proceedings of the

National Academy of Sciences of the United States of America, 118*(6).

https://doi.org/10.1073/pnas.1706255114

Quimby, J. L., & O'Brien, K. M. (2004). Predictors of student and career decision-making self-efficacy among nontraditional college women. *The Career Development Quarterly, 52*(4), 323–339. https://doi.org/10.1002/j.2161-0045.2004.tb00949.x

Raffe, D. (2003) Pathways linking education and work: A review of concepts, research, and policy debates. *Journal of Youth Studies, 6*(1), 3-19. http://doi.org/10.1080/1367626032000068136

Reay, D., Davies, J., David, M. & Ball, S. (2001). Choices of degrees or degrees of choice? Class, 'race' and the higher education choice process, *Sociology*, 35, 4, 855-874.

Rojewski, J. W. (2005). Occupational aspirations: Constructs, meanings, and application. In S. D. Brown & R. W. Lent (Eds.), *Career development and counseling: Putting theory and research to work* (pp. 131–154). John Wiley & Sons

Rojewski, J. W. & Kim, H. (2003). Career Choice Patterns and Behavior of Work-Bound Youth During Early Adolescence. *Journal of Career Development, 30*(2), 89–108. https://doi.org/10.1177/089484530303000201

Rosenbaum, J., Ahearn, C., Becker, K., & Rosenbaum, J. (2015, January). *The new forgotten half and research directions to support them* (W. T. Grant Inequality Paper). New York, NY: W. T. Grant Foundation. http://wtgrantfoundation.org/resource/the-new-forgotten-half-and-research-directions-to-support-them

Savickas, M. (2005). The theory and practice of career construction. In S. D. Brown & R. W. Lent (eds.), *Career development and counseling* (pp. 42–70). Hoboken, New Jersey: John Wiley & Sons.

Savickas, M. L. (2010) Life design: A paradigm for career intervention in the 21st Century.

Journal of Counseling & Development, 90(1), 13–19. https://doi.org/10.1111/j.1556-6676.2012.00002.x

Stinebrickner, R., & Stinebrickner, T. R. (2013, June). *A major in science? Initial beliefs and final outcomes for college major and dropout* (Working Paper No. 19165). National Bureau of Economic Research. https://doi.org/10.3386/w19165

Steele, C. (2010). *Whistling Vivaldi: How stereotypes affect us and what we can do*. New York: W.W. Norton & Company.

Stevens, M., Harrison, M., Thompson, M., Lifschitz, A., & Chaturapruek, S. (2018). Choices, Identities, Paths: Understanding College Students' Academic Decisions. Available at SSRN: https://ssrn.com/abstract=3162429

Strada. (2020). COVID-19 work and education survey [data set]. Strada Education Network. https://www.stradaeducation.org/publicviewpoint/

Sue, D., Capodilupo, C., & Holder, A. (2008). Racial microaggressions in the life experience of Black Americans, *Professional Psychology: Research and Practice, 39*, 3, 329-336.

Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior, 16*(3), 282–298. https://doi.org/10.1016/0001-8791(80)90056-1

Trevor-Roberts, E. (2006). Are you sure? The role of uncertainty in career. *Journal of Employment Counseling, 43*(3), 98–116. https://doi.org/10.1002/j.2161-1920.2006.tb00010.x

Turley, R. (2009). College proximity: Mapping access to opportunity. *Sociology of Education*, Vol. 82, 126-146.

Van Noy, M., Jacobs, J., Korey, S., Bailey, T. & Hughes, K. (2008). The Landscape of Noncredit Workforce Education: State Policies and Community College Practices, New York, NY: Teachers College, Columbia University, Community College Research Center.

Whiston, S. C., & Keller, B. K. (2004). The influences of the family of origin on career development: A review and analysis. *The Counseling Psychologist, 32*(4), 493–568. https://doi.org/10.1177/0011000004265660

Worthington, R., Flores, F., & Navarro, R. (2005). Career development in context: Research with people of color. In S. D. Brown & R. W. Lent (eds.), *Career development and counseling* (pp. 225–252). Hoboken, New Jersey: John Wiley & Sons.

Xu, D., & Ran, F. X. (2019). Noncredit education in community college: Students, course enrollments, and academic outcomes. *Community College Review, 48*(1), 77–101.