Journal of Student Financial Aid

Volume 52 | Issue 1 Article 2

March 2023

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Recommended Citation

Nguyen, Tuan D. and Kramer, Jenna W. (2023) "Constructing a clear definition of neotraditional students and illuminating their financial aid, academic, and non-academic experiences and outcomes in the 21st century," *Journal of Student Financial Aid*: Vol. 52 : Iss. 1 , Article 2.
DOI: https://doi.org/10.55504/0884-9153.1766
Available at: https://ir.library.louisville.edu/jsfa/vol52/iss1/2

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Cover Page Footnote
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Constructing a Clear Definition of Neotraditional Students and Illuminating Their Financial Aid, Academic, and Non-Academic Experiences and Outcomes in the 21st Century

By Tuan D. Nguyen, Kansas State University and Jenna W. Kramer, RAND Corporation

Decades of research related to the experience of postsecondary students who are adults, work full-time, or have other life roles have not led to agreement in the field regarding who is a "nontraditional" college student. This study leverages nationally representative data to illuminate shifts in this student population in the 21st century and builds a picture of their demographics, financial aid receipt, and academic experiences. Our results suggest that, in order to capture the diversity of the 21st century students and ubiquity of students with multiple life roles, we need to carefully define this student population; the use of the term "neotraditional" would better capture the central place of students with varying life circumstances in contemporary higher education. Our descriptive analyses illuminate the implications of different definitions of neotraditionality, the landscape of neotraditional student enrollment, differences in aid receipts, and changes among this population in the past two decades. We discuss the importance of how researchers, practitioners, and policymakers define this student population and the implications of such definitions for serving this population in higher education.

Keywords*: nontraditional students, neotraditional students, nontraditionality, demographic shifts*

In recent years, various states, the federal government, and private foundations in the United States have collaborated to set ambitious goals and direct interventions to increase the proportion of individuals earning postsecondary credentials. Many of these initiatives focus on facilitating postsecondary access for recent high school graduates enrolling in college full-time. Yet, increasingly, stakeholders have recognized they must pursue an alternative route to achieve this end: the promotion of enrollment and persistence among students who do not fit the mold of the "typical" college student (Bahr et al., 2020; Davidson et al., 2018; Pingel et al., 2016). However, limits to knowledge about students who do not proceed directly from high school to full-time undergraduate study restrict appropriate analysis and evolution of practice and policy. First, research often focuses on only one aspect of neotraditionality, such as age, or uses the flattened descriptor "nontraditional" instead of unpacking the multidimensional ways that students exhibit "nontraditionality" (Kim, 2002; MacDonald, 2018; Ross-Gordon, 2011). Second, research is often not nationally representative, focusing on single institutions or states (e.g., Collom, 2022). To adequately serve neotraditional students (NTS), that is, to promote their enrollment, persistence, well-being, and postsecondary success, we must develop clearer ideas of the composition and prevalence of this population and how their characteristics relate to their experiences. Prior literature has investigated the changes in the composition and prevalence of neotraditional students in the late decades of the 20th century (e.g., Choy, 2002); the literature needs an update that captures changes in the first two decades of the 21st century and documents students' life experiences, demographic characteristics, financial needs, academic success, and employment while enrolled. We undertake this analysis and argue it is more appropriate to refer to "nontraditional" students as "neotraditional" because they constitute the majority of students in postsecondary education in the 21st century (Flint, 2001; Jinkens, 2009). In other words, we define neotraditional students as students who previously have been identified as "nontraditional" students; these students do not fit the historic image of the typical college student, but who now comprise the majority of postsecondary enrollment.

To start, we need to concretely define the dimensions along which we will categorize students as neotraditional. Unfortunately, the articulation of what characterizes a neotraditional student is neither simple nor agreed upon. Different definitions of neotraditional status focus on different aspects of the student's life

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(Chung et al., 2014). Historically, students who delay college and those who attend school part-time fall under the most basic notions of what it means to be nontraditional (Bean & Metzner, 1985). According to an influential NCES report released in the early 2000s, a broad definition of "nontraditional" status would include roughly 73 percent of early 21st century postsecondary students (Choy, 2002). In this study, we rely upon the seven characteristics defined in that and subsequent reports: delayed college entry, having dependents, being a single parent, full-time employment, financial independence, part-time enrollment, and not having a high school diploma (Choy, 2002). Most scholars have come to view neotraditional status as a spectrum in which the overwhelming majority of students in postsecondary education are at least minimally neotraditional—that is, they exhibit at least one characteristic of a neotraditional student (Choy, 2002; Horn & Carroll, 1996). Starting with this operationalization, we define minimally neotraditional students as exhibiting a single characteristic of neotraditionality. Moderately neotraditional students are then defined as those who have two or three of the above-mentioned characteristics, while highly neotraditional students would have four or more. Stated otherwise, we delineate the neotraditional population of students on a spectrum based on the number of neotraditional characteristics they have, ranging from minimally (one characteristics), moderately (two or three characteristics), to highly neotraditional (four or more characteristics).

Previously, in research regarding neotraditional students, indicators and discussion are often flattened to chronological age. While this happens with good reason—roughly 41 percent of students enrolled in higher education are age 25 or older (NCES, 2015)—aspects of a student's identity and lived experience that differ from the conception of the traditional undergraduate go much deeper than chronological age. The reinvigorated policy focus on human capital development among adults could be a boon for those who seek higher wages, employers who seek qualified employees, and the government, which stands to benefit from increased tax revenues. However, to adequately serve these students, their communities, and society more broadly, we need an updated understanding of who neotraditional students are, what financial aid they access, what institutions they attend, and what their academic and personal lives entail. With a clearer vision of neotraditional students in the 21st century, postsecondary institutions, systems, and policymakers will be better equipped to increase their probability of success.

Existing literature validates chronological age but infrequently considers the other responsibilities and experiences that neotraditional students carry with them to campus (Horn, 1996; Jacobs & King, 2002). Moreover, the existing literature often does not explicitly pose research questions about neotraditional students, but rather considers heterogeneity in results by chronological age or another dimension of neotraditionality, and few conceptual models privilege neotraditional students as their focus. Practitioners and researchers lack precise language to categorize the neotraditional student population, which limits the ability to craft, implement, and evaluate supports and solutions for issues that these students encounter (Donaldson & Townsend, 2007).

Building an understanding of the neotraditional student population and experiences will guide the work of practitioners and policymakers in supporting students with multiple life roles. Institution-level efforts to increase access for neotraditional students by offering more classes in the evenings may fall short of adequate support because they fail to account for needs with regard to childcare or financial support for tuition and other life costs. Neotraditional students have varied life experiences and they have various motivations and needs in college. Consequently, we rely on human capital theory and models of nontraditional student persistence and departure at commuter institutions to guide our study. Towards this end, we not only need to examine who neotraditional students are, but also their financial aid, academic, and employment outcomes. Moreover, to provide a broad overview of these students we use nationally representative data from the first two decades of the 21st century, the 2000s and 2010s, to examine this population of students and how they have changed over time. Specifically, we ask the following questions:

RQ1: What is the proportion of undergraduate students by each NCES "nontraditional" indicator, and how has that changed over time?

RQ2: How does the proportion of undergraduate students considered "neotraditional" change given the number of factors included in categorizing them (i.e., minimally, moderately, or highly neotraditional)? To what extent has this changed over time?

RQ3: What are the demographic characteristics of neotraditional students in the 21st century?

RQ4: How does financial aid receipt differ by neotraditional status?

RQ5: How do academic outcomes and student employment differ by neotraditional status?

Using quantitative descriptive analysis of nationally representative data to answer these questions, we will provide the most up-to-date analysis on the prevalence of neotraditionality, the demographic composition of neotraditional students, and their college experiences, including financial aid receipt and their academic outcomes as well as their college employment, to craft a picture of who they are and how they are changing over time. In the next section, we provide the history of research on "nontraditional" students, the current research on these students, the conceptual framework that guides our perspective and analyses, and our aim to redefine this student population. Then we describe our data and methodological approach to answer the research questions. We discuss our results and contextualize our findings within the larger literature, particularly around the implications of our work for policy, practice, and research.

Literature Review

The History of Research on "Nontraditional" Students

As early as the 1980s, scholars identified adult learners as a growing share of the postsecondary population (Cross, 1981), and the growth of this population has remained steady. In spite of long-standing knowledge of the growing share of nontraditional students on campus, they are not the focus of higher education research. The application of knowledge of traditional students to their counterparts with adult life experiences is unlikely to contribute to better outcomes for nontraditional students.[2]

Conventional models of student persistence—relying heavily on social integration (Astin, 1984; Pascarella, 1985; Tinto, 1975, 1987)—may not apply to nontraditional students, especially at two-year or commuter institutions (Braxton et al., 2014; Tinto, 1993). Nontraditional students may spend less time on campus, work full-time, and invest their available time in dependents due to their caregiver identity. The standard models of student persistence may not capture other more important components of daily life contributing to the nontraditional postsecondary experience. Consequently, there was a push starting in the mid-1980s to conceptualize how nontraditional students' daily life experiences impact their postsecondary experience.

Bean and Metzner (1985) first articulated that the college experience of nontraditional students is inherently different from their traditional peers. In particular, they argued these differences manifest in the intensity and duration of enrollment, resulting in substantively different socialization and overall postsecondary experiences. Models and theories designed using empirical knowledge of traditional students cannot explain the enrollment, success, and departure patterns of nontraditional students. Metzner and Bean

[2] In this section, we use the term nontraditional to be consistent with the prior literature that we cite. We retain the use of this terminology for historical context in some parts of the paper. Outside of this section, however, we preference the use of neotraditional students to describe students who do not fit the historically typical profiles of high school graduates who enroll in college directly.

(1987) further developed models of nontraditional student attrition. Their results provided evidence of how nontraditional student departure differs from traditional student departure. Whereas Tinto (1975), Pascarella (1980), and Astin (1984) centralize social integration and student involvement, Metzner and Bean (1987) make a point of grounding their theory in academic and environmental factors, such as faculty contact, memberships, and school friends. Pushing on these theories further, Deil-Amen (2011) argued for a reconceptualization of academic and social integration to better account for the unique circumstances of students whose realities do not fit the narrow mold postsecondary institutions have been designed to support.

To this point, researchers have noted the shares of nontraditional students in both four-year and two-year institutions have grown over time (Choy, 2002; Taniguchi & Kaufman, 2005; U.S. Department of Education, 2021), leading some to consider how we label and characterize this population. In many institutions, particularly the two-year colleges, where the "nontraditional" students represent the majority, it makes less and less sense to refer to them as the nontraditional students. As early as 2010, researchers have argued we should use the term "neotraditional" instead to describe these students (Long, 2010). Other scholars (Campbell et al., 2015) have also referenced the use of this term. While these earlier works make use of this term, they do not forcefully argue that we need to make the shift in language that more appropriately describe this population of students. Moreover, they do not provide conceptual or empirical evidence to explain the needs of re-examining the term we use, who "traditional" students are, or how the proportion of these "non"-traditional students have changed over time. To address these gaps, our paper provides conceptual and empirical evidence as to why neotraditional is a better and more accurate term to describe this population of students. Henceforth, we preference the use of neotraditional instead of nontraditional.

As research in the past decade has considered the multiple life roles of these nontraditional students, who are typically balancing jobs, family life, and school (Bidwell, 2014), we see how these differences in life experiences, demands, and status lead neotraditional students to face different issues and financial realities than their counterparts. In particular, for many neotraditional students who may not have parents who attended college or come from low-income families possess less knowledge about financial aid (George-Jackson & Gast, 2015) and are less likely to complete the FAFSA before critical deadlines (Feeney & Heroff, 2013). Some minority students and low-income students are also more likely to be selected for FAFSA verification than their White and wealthier peers (Evans et al., 2017). Moreover, time management, overwhelming work or home life responsibilities, and classroom skills challenges may contribute to students stopping out prior to completion of a credential or degree (Bidwell, 2014; Erisman & Steele, 2012; Ross-Gordon, 2011). A robust practitioner-oriented literature has described classroom and campus practices adopted by institutions serving largely nontraditional students and has endeavored to estimate the effects of such programming. These interventions have largely been instruction-oriented (MacDonald, 2018) and may not support neotraditional students to addresses their multidimensional needs, in no small part due to how the field has viewed these students historically.

Present Knowledge of the Experience of Neotraditional Students

In recent years, there has been an increased awareness of the unique difficulties neotraditional students face in their postsecondary education experience and the role of policy and practice in cementing these difficulties. In particular, many adults with multiple life roles leave college before earning a postsecondary credential. Some estimates suggest 38 percent of students who have family, work, or financial obligations leave college within the first year (Lumina, 2015). Unfortunately, this is unsurprising given policymaking and practice have historically favored younger students. Many state aid programs require full-time enrollment, a near impossibility for older students, particularly those with dependents. Further, many adults do not know they may be eligible for federal or state aid or find the language and tools confusing

(Taylor & Bicak, 2019; U.S. Department of Education, 2016), and many lack financial awareness needed to navigate higher education (George-Jackson & Gast, 2015).

To increase the success of neotraditional students, many states and organizations have adopted multi-pronged approaches. Rather than increasing supports only for high school students, there is a trend toward the development of recapture programs intended to bring potential "nontraditional" students to college, either as first time or returning students. Indiana has implemented the Workforce Ready Grant, which covers tuition and fees for adults who train in high-need fields (Indiana Commission for Higher Education, n.d.). Through Tennessee Reconnect, adults can enroll or re-enroll in college full- or part-time without paying for tuition and fees. The investment in adult students is perceived to be worth the cost. The state explains that the Reconnect program "provides an immediate payoff for Tennessee's workforce…that will provide dividends for decades to come" (State of Tennessee, n.d.). These programs stand to accelerate dramatic shifts in campus populations: Tennessee had over 31,000 applications for its first year of Reconnect, which is roughly double the number of recent high school graduates who were expected at the state's open access institutions that fall (Gonzales, 2018).

These campaigns design their policies to attract a particular profile of prospective student to college, based on labor market and postsecondary completion trends. Researchers have endeavored to determine which academic and non-academic supports draw students to college and support them to completion. However, policies and practices are being built upon an outdated and incomplete picture of the population they endeavor to serve. To maximize the impact of education policies and practices, states and institutions must leverage up-to-date knowledge on the population they serve, including the current profile of the neotraditional students in the 21st century. Institutions have previously relied on antiquated notions of neotraditional students in part because knowledge of the landscape of neotraditional students is incomplete. Previous research in this area has not considered how the composition and prevalence of neotraditional students have changed in recent years, focuses specifically only one aspect of neotraditionality, and is often not nationally representative. Research identifying the composition, prevalence, and academic, financial, and work experiences of 21st century neotraditional students, the intended targets of "reconnect" programs, will provide important information on vitally important student population. Gaps in the research base limit the degree to which newly developed policy and practice reflect the realities of contemporary college students.

Conceptual Framework

Neotraditional students have varied life experiences that beget different motivations for enrollment, engagement on campus, and needs for support for postsecondary success. In this study, we aim to build a picture of contemporary neotraditional students and their personal and academic experiences while enrolled in college. Our analysis is guided by human capital theory and models of nontraditional student persistence and departure at commuter institutions because these models capture various dimensions of postsecondary enrollment decision, persistence and departure, and experiences while enrolled.

Human capital theory (Becker, 1975) posits individuals invest in themselves, namely their earning power and job stability, by building new knowledge and skills in college. Under a human capital theory framework, prospective college students weigh the costs and benefits of postsecondary enrollment and choose to enroll when the benefits of pursuing postsecondary training outweigh the costs. Within this framework, access to information on costs and benefits and the ability of individuals to understand and synthesize this information are both of central importance. Costs and benefits are not the same for all students (Goldrick-Rab et al., 2009); for neotraditional students, the opportunity cost of forgoing additional working hours may be higher than for prospective students who have more limited life roles and responsibilities. Prospective students may have limited information about potential costs and benefits of college (e.g., Perna, 2006). While limited access to information impacts all prospective and enrolled students,

neotraditional students who have spent time away from the education system may have less access to clear and accurate information about college costs and benefits. Further, the contemporary college pricing model results in different actual prices of attendance for students (Hill et al., 2005; Kelchen et al., 2017); college yields heterogeneous financial and non-financial returns (Thomas, 2000; Webber, 2016). Human capital theory can only partially explain prospective students' decisions to attend and persist in college, so researchers have developed postsecondary decision-making frameworks that leverage components of human capital theory alongside other disciplinary considerations regarding students' lived experiences.

Models of student persistence and departure focusing on students outside of the "traditional" age range and residential campus experience lend insights into observed differences in college-going and departure between student groups. Metzner and Bean's (1985) model of nontraditional student attrition conceptualizes nontraditional student success as a longitudinal process influenced by individual background, academic variables, environmental factors and psychological outcomes. Their model assumes nontraditional students are more likely to be affected by the external environment than their peers and are mainly concerned with academics during college rather than socialization.

Similarly, theories of persistence at commuter institutions account for factors in students' external environments, including finances, support from significant others, work and family demands, community resources, and institutional factors, including institutional commitment to student welfare (Braxton et al., 2014). Components of these models connect to other sociological concepts like scarcity and role-expansion conceptualizations of the impact of multiple roles on individual well-being and performance (Goode, 1960; Greenhaus & Powell, 2006; Marks, 1977). The student persistence and departure models, particularly those that focus on commuter or adult students, are useful in conceptualizing the dimensions of the postsecondary experience that may be most salient to the neotraditional student experience once enrolled.

Reflections on Research about Neotraditional Students and Terminology

As we endeavor to illuminate neotraditional students and how best to meet and support them where they are instead of where they are supposed to be, it is critical for the research community to reconsider who these students are, and how prevalent they are broadly in postsecondary education.

In spite of the emphasis of theorists on the importance of various individual factors in the institutional experience, few have endeavored to holistically define and consider the experience of neotraditional students in postsecondary education. For instance, while research may focus on employment status and student outcomes or perceptions (Bartolj & Polanec, 2018; Choi, 2018), generally the existing literature does not endeavor to comprehensively examine the role of other neotraditional student characteristics and responsibilities. Perhaps due to data limitations or ease of operationalization, the bulk of recent research on this population focuses on primarily on chronological age (Andrews, 2018; Cruce & Hillman, 2012; Titus & Pusser, 2011).

Often when research identifies the population of interest as adult learners, its focus is to evaluate practices for teaching them. In fact, for a number of decades there has been a strong tradition of peer-reviewed, practice-oriented journals focused on adult education (e.g., *Adult Learning*, in its 30th volume, and *Journal of Adult and Continuing Education*, in its 25th volume*)*. In practitioner-focused journals and the core scholarly higher education journals alike, most research focuses on students along one dimension of neotraditionality, age, and focuses on the classroom-centered insights of practitioners. Further, in the existing empirical work, adult students are compared to traditional undergraduates in terms of their need and performance, rather than contrasting their experience with other individuals who share important elements of their lived experience but differ along a personal dimension or exposure to a given intervention (Donaldson & Townsend, 2007).

Some strands of research link age with another component of neotraditional student status. For example, some scholars investigate how part-time status affects time to degree completion for adults (Jacobs & King, 2002; Taniguchi & Kaufman, 2005). Logically, attending school part-time is often a consequence of other factors on the neotraditional spectrum: Older students (Horn, 1996; Jacobs & King, 2002; Taniguchi & Kaufman, 2005), those who work full-time (Roksa & Velez, 2012), and those with familial obligations (Bozick & DeLuca, 2005; Roksa & Velez, 2012) are more likely than traditional students to attend part-time. Attending school as a part-time student necessarily increases time to degree completion (Taniguchi & Kaufman, 2005). Some research highlights that the intersection of "life course transitions," such as marriage, becoming a parent, or finding a full-time job, may delay entry into college (Boznick & DeLuca, 2005) and decrease rates of persistence for those neotraditional students who do enroll (Roksa & Velez, 2012). In discussing and accounting for these aspects of individual experiences, this research does a better job of validating the identities of the population of study.

Still, the bulk of the literature focuses on students solely along the dimension of age ("adult students," or "delayed enrollment"). The lack of focus on other facets of life and experience has contributed to bias toward traditional students in services and policies, even as adult students constitute a growing share of campus populations. As policy and practitioner attention turns toward neotraditional age students, it is important for the research to holistically consider these individuals and the policies and practices that are likely to increase their success, and to move away from considering these students as distinct only along one dimension. Considering all characteristics that make up the neotraditional student scale is important, as elements of individuals' identities that are not discussed when crafting the policies and practices that make up their experiences are not legitimized (Donaldson & Townsend, 2007). As we pursue this research, we make a point to compare neotraditional students not only with traditional students but also with one another. By discerning the differences in experience, financial aid receipt, and outcomes by various characteristic profiles, we hope to disseminate detailed breakdowns of the neotraditional population that will be of use for practitioners and policymakers endeavoring to increase neotraditional student attainment.

For instance, the strategy to target financial aid for adult students appears well directed on its face as, generally, the financial aid literature suggests positive effects of grant aid on student persistence (Nguyen et al., 2019). Further, financial challenges are perhaps the most overwhelming of those faced by neotraditional students in postsecondary education. In addition to the financial strain that is felt by traditional students undertaking the burden of college expenses, neotraditional students are, by definition and circumstance, more likely to be financially independent. Financial independence and other life circumstances make these individuals responsible for a car or commuting costs, rent, childcare, and other life expenses that arise for those who have more fully transitioned to adult life (Forbus et al., 2011). Higher financial stress has been linked to decreased likelihood of retention (Britt et al., 2017). At the same time, receipt of financial aid may yield positive benefits for students because they may be able to work fewer hours (e.g., Broton et al., 2016; Castleman & Long, 2013) and thus have the opportunity to devote more time to take additional classes, improve their academic performance, or to become more academically integrated (Crisp & Nora, 2010; DesJardins & McCall, 2014; Dundes & Marx, 2006; Stinebrickner & Stinebrickner, 2003). However, as noted previously, findings such as these must be generalized with caution, as the majority of the studies focus on financial aid awarded to traditional students. To date, there has been little work that considers how financial aid, work, and enrollment vary by neotraditional status (for an exception, see Chen & Hossler, 2017).

The existing literature on student persistence examines outcomes of students who exhibit single neotraditional characteristics; there has been strikingly little investigation into the prevalence, enrollment patterns, aid receipt, and academic and work profiles of students who exhibit several characteristics on the risk index. As states, corporations, and institutions invest in serving more "nontraditional" students and improving their practice, research that centers this student population is both critical and timely. Relatedly,

we need to acknowledge that these students who do not conform to the traditional or historical norms of attending college are now the majority and adjust our language accordingly. As such, we reiterate our argument that these students should be called neotraditional students and we bolster our conceptual argument with empirical evidence next. An understanding of the overall prevalence and constitution of this important group will inform and enrich discussions of policies and practices to serve students. Renewed public and private investment in reconnecting neotraditional students with education and their position as the least advantaged postsecondary students in America's highly stratified higher education system makes knowledge of this population critical.

Data and Method

To illuminate the multi-dimensional profile of neotraditional students in 21st century and answer the above-stated research questions, we use the restricted National Postsecondary Student Aid Study (NPSAS) data, a nationally representative, repeated cross-section of U.S. college students collected by the National Center for Education Statistics. NPSAS uses stratified clustered sampling, first randomly selecting institutions from different sectors of higher education then randomly sampling students within institutions (Wine et al., 2014). Our sample includes five NPSAS waves through two decades of the 21st century: 2000, 2004, 2008, 2012, and 2016. With the restricted student-level data, we are able to examine our research questions in ways that the publicly available data would not allow. The data contain students' demographic characteristics, parental education, parental income distribution, the exact amount of multiple forms of aid received including grants and loans from the institutions, federal and state government, and other private sources, and a number of outcome variables such as whether students have jobs on campus, hours worked per week, GPA in the academic year, and the number of credits attempted by term (see Appendix Table 1 for full details). There are several advantages to the use of NPSAS in our analysis. First, it provides nationally representative data so our results are not limited to a few institutions or to a particular state or region. Second, it has been used previously as the starting point of defining and characterizing neotraditional students (Horn & Carroll, 1996; Choy, 2002). Third, and related to the second point, NPSAS contains all the key criteria needed to examine this population, particularly around how neotraditionality is defined, their financial aid receipts, and postsecondary outcomes. Fourth, by pooling the data together, we can more accurately portray how the characteristics and outcomes of neotraditional students have changed over time in the 21st century. A limitation of the NPSAS, similar to any study that uses nationally representative data, is that the results will not necessarily apply to every individual institution.

We use the criteria laid out by NCES (Choy, 2002; Horn & Carroll, 1996) to create seven indicators of neotraditional status (NTS). The seven NCES criteria of neotraditional status for undergraduate students are delayed enrollment (older than 24 years of age in first year of college), part-time enrollment, financial independence, full-time employment while enrolled, having dependents, single parent status, and lack of high school diploma or GED or high school equivalence (Horn & Carroll, 1996). In existing literature, the NCES scale of neotraditionality classifies students who did not have any of the above-stated characteristics as minimally neotraditional alongside their peers who exhibited one of the characteristics. For this study, we define traditional students as students who do not have any of the above-stated characteristics or experiences; minimally neotraditional students are those individuals with a single indicator; moderately neotraditional students have two or three indicators; and highly neotraditional students exhibit four or more of the NCES-defined characteristics. Demarcating the scale in this way will allow us to examine descriptive differences between traditional and minimally neotraditional students in order to explore whether the scale should be recalibrated. Our data and prior literature indicate that students attending four-year and two-year institutions are different in various ways. Consequently, we analyze the data by institutional sector.

First, to get a clear vision of the prevalence of neotraditional status in postsecondary education and to gauge how many students do not fit the mold of the "typical" college students, we use the neotraditional

indicators and scale to describe the proportion of undergraduate students by each neotraditional indicator by institutional sector. Next, to illustrate the changing landscape of higher education, we calculate the rate of neotraditional status for each wave. Then to bolster our conceptual argument that even minimally neotraditional students, those with only a single indicator of neotraditionality, are systematically different than traditional students, we provide empirical evidence that student demographics, in particular race/ethnicity, gender, and parental education, are substantively and significantly different for traditional students relative to minimally neotraditional students as well as students who are moderately and highly neotraditional. Furthermore, we also describe how financial aid information, academic outcomes, and work obligations during enrollment differ for traditional and neotraditional students. Differences in grant aid magnitude among the groups may be representative of differences in college quality and cost at four-year institutions. We account for these differences by calculating the ratio of out-of-pocket costs to total cost of attendance, including room and board, for traditional and neotraditional students. To examine difference in demographics and outcomes among neotraditional students (RQ4), we simply regress the outcome of interest against the neotraditional categorical variable using heteroskedastic-robust standard errors (Appendix Table 4). In short, our analysis, though descriptive in nature, provides a comprehensive picture of how common is the "typical" college student and the various ways in which many students' identities and realities differ from their peers whose profile and experiences are more "traditional" to the postsecondary environment.

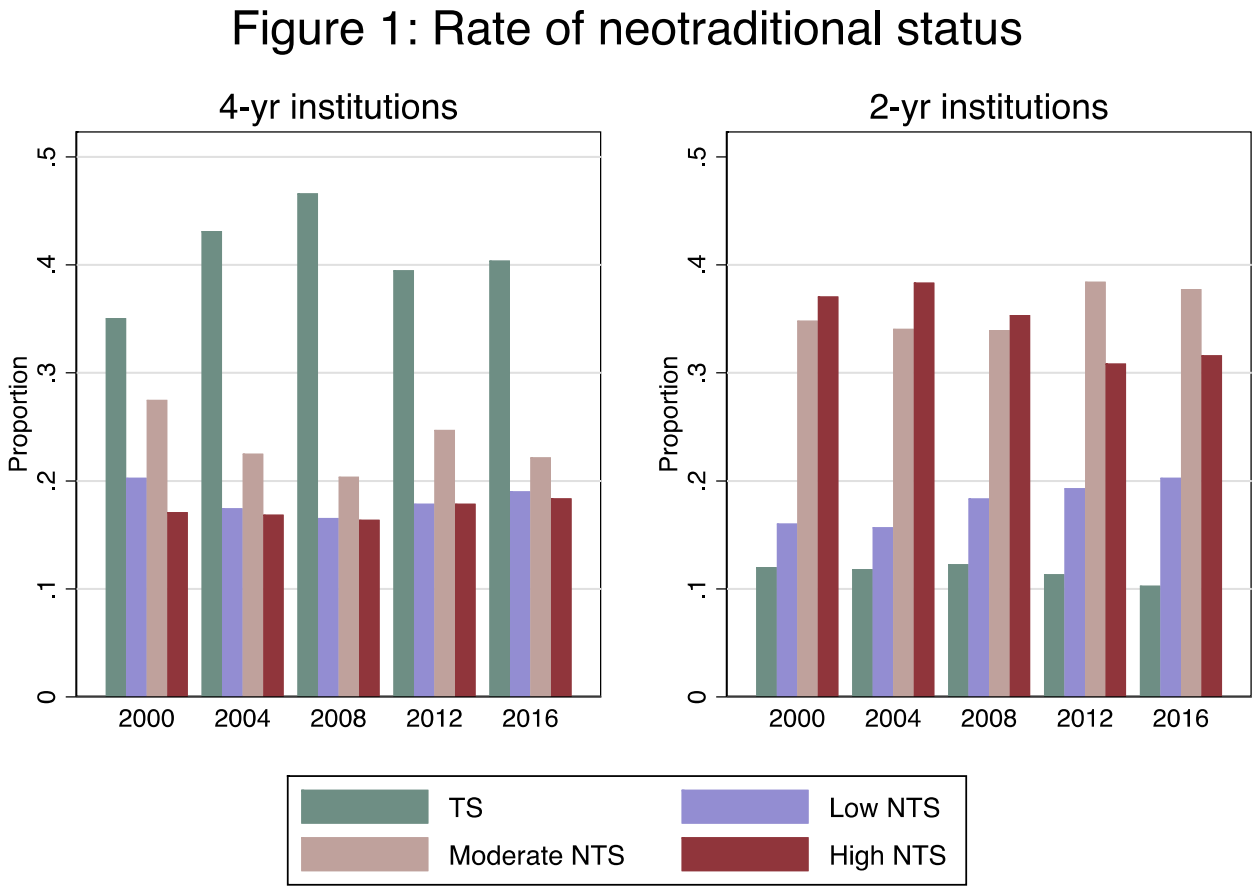
Results

RQ1: What is the proportion of undergraduate students by each NCES "nontraditional" indicator, and how has that changed over time?

To answer RQ1, we examine the proportion of students at four-year and two-year institutions by each NCES indicator over time (Appendix Figure 1). In general, the proportions and trends for undergraduate students are different at four-year institutions and two-year institutions and that there are substantial variations across the indicators over time and by sector. For instance, in the latest wave at four-year institutions, 41 percent of students indicate financial independence, 34 percent are part-time enrollees, 28 percent delayed enrollment, 21 percent have full time employment, 20 percent have at least one dependent, and 10 percent are single parents. At four-year institutions, financial independence is consistently the most common neotraditional indicator. In particular, in the 2000 NPSAS wave, almost half of all students, 49 percent, indicate financial independence. Financial independence declined to a low of 37 percent in the 2008 wave, likely reflecting enrollment effects of the economic recession. Financial independence has since gone back up to 41 percent by 2016. We observe a similar pattern for part-time enrollment, delayed enrollment, full-time employment. However, we observe that postsecondary students at four-year institutions have become more likely to be a single parent and have no high school degree or GED over time.

Relative to students at four-year institutions, students at two-year institutions are much more likely to exhibit at least one neotraditional indicator. In the 2016 wave, 60 percent of students indicate financial independence, 68 percent are part-time enrollees, 46 percent delay enrollment, 31 percent have full-time employment, 30 percent have at least one dependent, and 17 percent are single parents. Moreover, students attending two-year institutions are much more likely to be financially independent (60 percent) than their four-year counterparts (42 percent; Appendix Table 2). Furthermore, in comparison to their four-year peers, students attending two-year institutions enroll part-time at a higher rate (64 percent versus 30 percent), are more likely to delay enrollment (46 percent versus 25 percent), are more likely to have full-time jobs (39 percent versus 25 percent), and are more likely to have dependents (34 percent versus 20 percent).

While there have been some changes in the proportions of students with each neotraditional indicator at two-year institutions, these changes have been smaller in magnitude relative to changes at four-year institutions. For instance, students without high school degree have increased from 2.5 percent to 5.7 percent at four-year institutions from 2000 to 2016 relative to an increase from 9.0 percent to 10.5 percent at two-year institutions. One fairly consistent pattern across both two-year and four-year institutions is that the proportion of students who are single parents steadily increases in both sectors and tapers off in 2016. This trend holds when we pool students across institutional sectors (Appendix Table 2, Panel A). Appendix Figure 1 and the descriptive statistics in Appendix Table 2 provide further evidence that students at two-year institutions are substantively different from those attending four-year institutions. Moreover, the evidence indicates that students at two-year institutions are descriptively more likely to have one or more neotraditional indicator than their counterparts at four-year institutions.



Note. These data represent 47,628,000 and 39,183,000 students at 4-yr and 2-yr institutions respectively.

Fig. 1 *Rate of Neotraditional Status By Sectors of Institutions Over Time*

RQ2: How does the proportion of undergraduate students considered "neotraditional" change given the number of factors included in categorizing them (i.e., minimally, moderately, or highly neotraditional)? To what extent has this changed over time?

Next to address RQ2, we illustrate how many students fit the mold of the "typical" college student by examining the rate of neotraditionality (based on an individual's sum of the seven indicators) by sector in Figure 1. In other words, Figure 1 shows the proportion of postsecondary students exhibiting each neotraditional indicator for each wave by sector (precise values in Appendix Table 3). As a reminder, we

classify students as traditional, minimally neotraditional (having one "neotraditional" indicator), moderately neotraditional (two or three), and highly neotraditional (four or more). From 2000 to 2016, about 41 percent of students attending four-year institutions are traditional students, 18 percent are minimally NTS, and 23 percent and 17 percent are moderately and highly neotraditional, respectively. Stated differently, the majority of students at four-year institutions are neotraditional in one or more ways. This contrast between traditional and neotraditional is even more pronounced at two-year institutions where only 12 percent of students are traditional students. Eighteen percent are minimally neotraditional, 36 percent are moderately neotraditional, and 35 percent are highly neotraditional.

In other words, roughly six out of ten students at four-year institutions have life circumstances that distinguish them from the popular conception of "traditional" college student. Even more starkly, nearly nine out of ten students at two-year institutions do not conform to the traditional student conception. We also note that students attending two-year institutions are more likely to be neotraditional, both in each individual NTS measure as well as by the proportion of students who exhibit at least one NTS characteristics. On the whole, when we pool all students across all waves and sectors, including less-than-two year institutions, only 28 percent of students do not exhibit any neotraditional status indicator (Panel A of Appendix Table 3). In short, nationally the "traditional" students are in the minority in the 21st century.

Table 1

Table 1. Descriptive Statistics: Demographics variables by institution sector

Variables	Wave: 2000				Wave: 2016			
	(1) TS	(2) Min NTS	(3) Mod NTS	(4) High NTS	(5) TS	(6) Min NTS	(7) Mod NTS	(8) High NTS
Panel A: Four-year Institutions								
Female	0.57	0.52	0.60	0.63	0.55	0.52	0.58	0.70
White	0.74	0.70	0.70	0.56	0.61	0.54	0.54	0.46
Black	0.09	0.08	0.12	0.24	0.11	0.13	0.19	0.29
Hispanic	0.08	0.09	0.10	0.13	0.15	0.19	0.17	0.17
Asian	0.06	0.08	0.04	0.03	0.08	0.09	0.06	0.03
Other	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05
Parents' ed: HS or less	0.22	0.31	0.44	0.58	0.12	0.19	0.28	0.34
Parents' ed: some college	0.20	0.18	0.19	0.20	0.24	0.29	0.35	0.36
Parents' ed: BA or higher	0.57	0.51	0.37	0.23	0.64	0.52	0.37	0.31
Observations	11240	12300	8330	1930	16680	17220	13160	5620
Panel B: Two-year Institutions								
Female	0.53	0.52	0.62	0.67	0.52	0.52	0.57	0.68
White	0.70	0.66	0.67	0.58	0.49	0.49	0.51	0.47
Black	0.10	0.10	0.13	0.21	0.12	0.12	0.17	0.22
Hispanic	0.11	0.12	0.11	0.14	0.26	0.27	0.21	0.21
Asian	0.05	0.05	0.03	0.03	0.07	0.07	0.06	0.05
Other	0.05	0.05	0.05	0.05	0.06	0.05	0.05	0.05
Parents' ed: HS or less	0.34	0.42	0.53	0.63	0.24	0.26	0.35	0.39
Parents' ed: some college	0.28	0.24	0.20	0.19	0.38	0.36	0.33	0.35
Parents' ed: BA or higher	0.37	0.34	0.26	0.18	0.38	0.39	0.32	0.26
Observations	990	2290	2420	1190	2360	6950	6060	2880

Note. Reported values are means of continuous variables and proportions of binary variables. Minimally NTS has one characteristic, moderately NTS has two or three characteristics, and highly NTS has four or more. Proper weights for each wave are employed to represent national representative samples. All observations have been rounded to the nearest 10 per IES restricted data use.

RQ3: What are the demographic characteristics of neotraditional students in the 21st century?

Next we examine RQ3: the demographic characteristics of neotraditional students in the 21st century. Table 1 provides demographic characteristics by traditionality status for each wave by sector. As most characteristics remain fairly stable through time, we describe the characteristics in the base year and note any substantial changes in subsequent years. For instance, 57 percent of traditional students, 52 percent of minimally NTS, and 60 percent of moderately and highly neotraditional are female in the 2000 wave (Panel A of Table 1). In 2000, 74 percent of traditional students are White, nine percent are Black, eight percent are Hispanic, and six percent are Asian. For moderately/highly neotraditional students, 67 percent are White, 15 percent are Black, and 10 percent are Hispanic. In general, for all neotraditional students, the student population is becoming more diverse. In terms of parental education, 77 percent of traditional students in the NTPS 2000 wave have parents with some college or higher compared to 69 percent, 56 percent, and 43 percent of minimally, moderately, and highly neotraditional, respectively. These drastic differences provide consistent evidence that the backgrounds of traditional students and neotraditional students are quite different.

The patterns of gender and race across neotraditional status for students at two-year institutions are generally similar to those at four-year institutions (Table 1, Panel B). However, the parental educational attainment of students attending two-year institutions differs from those at four-year institutions. In 2000, only 65 percent and 37 percent of the parents of traditional and highly neotraditional students at two-year institutions, respectively, have some college education. The contrast between parental education for the two groups of students across sectors of institutions decreases by 2016.

Table 2

Table 2. Descriptive statistics of aid variables for four-year institutions

	Wave: 2000				Wave: 2016			
	(1) TS	(2) Min NTS	(3) Mod NTS	(4) High NTS	(5) TS	(6) Min NTS	(7) Mod NTS	(8) High NTS
Pell receipt	0.22	0.20	0.17	0.25	0.36	0.40	0.41	0.55
Pell grant amount	622.34	561.29	478.66	594.31	1604.73	1611.91	1430.95	1865.19
	(1336.34)	(1270.82)	(1210.09)	(1218.17)	(2341.31)	(2252.65)	(2073.67)	(2115.94)
SEOG receipt	0.08	0.06	0.05	0.05	0.09	0.09	0.08	0.11
SEOG amount	115.34	67.35	44.12	42.87	89.05	75.84	45.61	49.57
	(528.87)	(384.85)	(274.04)	(236.49)	(400.95)	(346.41)	(241.67)	(203.78)
State grant receipt	0.23	0.15	0.09	0.10	0.31	0.22	0.12	0.13
State grant amount	726.46	406.30	209.59	184.19	1232.02	719.91	296.07	285.44
	(1788.95)	(1307.47)	(942.59)	(697.61)	(2417.85)	(1888.83)	(1122.18)	(1106.42)
Inst. grant receipt	0.39	0.27	0.13	0.09	0.55	0.32	0.21	0.20
Inst. grant amount	3090.28	2124.55	634.67	326.03	6446.31	2425.86	806.49	485.10
	(6096.50)	(6399.76)	(2952.60)	(2102.51)	(10407.08)	(6378.98)	(3205.18)	(1758.50)
Any grant receipt	0.61	0.51	0.48	0.56	0.78	0.65	0.62	0.73
Total grant amount	5177.02	3687.84	2281.43	1909.04	10525.28	5628.61	3175.49	3226.62
	(7523.99)	(7481.09)	(4619.61)	(3374.30)	(11980.39)	(8407.14)	(4929.17)	(3731.80)
Loan receipt	0.52	0.51	0.32	0.33	0.60	0.47	0.46	0.52
Total loan amount	3533.70	6259.59	3604.73	3214.48	4884.76	3860.87	3829.30	4156.81
	(4716.88)	(9870.11)	(6975.60)	(6061.52)	(6086.76)	(5727.04)	(5360.92)	(5253.72)
Percent out of pocket to cost	0.58	0.55	0.66	0.65	0.46	0.55	0.57	0.52
Observations	11240	12300	8330	1930	16680	17220	13160	5620

Note. Standard deviations are in parentheses. Aid variables have been converted to constant 2012 dollars. Total loan includes federal, state, institutional, and private/alternative loans. Minimally NTS has one characteristic, moderately NTS has two or three characteristics, and highly NTS has four or more. Proper weights for each wave are employed to represent national representative samples. All observations have been rounded to the nearest 10 per IES restricted data use.

Table 3

Table 3. Descriptive statistics of aid variables for two-year institutions

	Wave: 2000				Wave: 2016			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TS	Min NTS	Mod NTS	High NTS	TS	Min NTS	Mod NTS	High NTS
Pell receipt	0.27	0.19	0.25	0.24	0.46	0.33	0.32	0.45
Pell grant amount	711.10	410.58	558.36	794.28	1943.79	1100.95	999.78	1340.58
	(1335.54)	(1011.29)	(1168.37)	(1587.37)	(2388.21)	(1847.22)	(1766.45)	(1860.96)
SEOG receipt	0.07	0.04	0.06	0.05	0.07	0.05	0.05	0.09
SEOG amount	49.23	19.37	31.88	25.84	38.18	18.39	24.89	33.02
	(242.24)	(120.46)	(154.65)	(156.94)	(220.71)	(113.31)	(149.86)	(144.15)
State grant receipt	0.20	0.12	0.11	0.17	0.33	0.23	0.18	0.19
State grant amount	349.07	180.10	132.81	281.76	626.77	325.10	224.13	211.71
	(962.07)	(718.86)	(514.74)	(860.42)	(1252.34)	(795.47)	(629.64)	(618.04)
Inst. grant receipt	0.19	0.09	0.07	0.16	0.16	0.07	0.06	0.05
Inst. grant amount	322.78	89.84	43.62	483.99	472.12	139.52	79.64	49.12
	(1130.13)	(477.97)	(241.77)	(2001.99)	(1657.49)	(827.73)	(533.74)	(388.20)
Any grant receipt	0.47	0.34	0.44	0.46	0.69	0.51	0.48	0.57
Total grant amount	1666.70	801.06	927.40	1763.70	3575.58	1801.80	1504.67	1775.71
	(2735.33)	(1691.22)	(1719.76)	(3117.56)	(3963.18)	(2678.73)	(2337.75)	(2390.42)
Loan receipt	0.17	0.13	0.13	0.20	0.20	0.15	0.17	0.20
Total loan amount	844.38	712.34	691.80	932.55	1051.34	766.29	1011.70	1127.79
	(2396.62)	(2278.74)	(2317.24)	(2533.24)	(2670.73)	(2387.86)	(2739.01)	(2767.12)
Percent out of pocket to cost	0.77	0.84	0.81	0.76	0.66	0.74	0.74	0.71
Observations	990	2290	3610	4280	8590	13790	4690	10660

Note. Standard deviations are in parentheses. Aid variables have been converted to constant 2012 dollars. Total loan includes federal, state, institutional, and private/alternative loans. Minimally NTS has one characteristic, moderately NTS has two or three characteristics, and highly NTS has four or more. Proper weights for each wave are employed to represent national representative samples. All observations have been rounded to the nearest 10 per IES restricted data use.

RQ4: How does financial aid receipt differ by neotraditional status?

To address RQ4, we look at how financial aid receipt differs by neotraditional status. Financial aid plays a crucial role in the postsecondary success of college students. Table 2 provides the descriptive statistics of receipt and amount of various types of aid for students at four-year institutions. To start, the receipt of Pell Grant was relatively comparable among traditional and neotraditional students in the 2000 wave. While the proportion of students receiving Pell grew steadily for all groups, this increase was more substantial for neotraditional students. By 2016, 40 percent, 41 percent, and 55 percent of minimally, moderately, and highly neotraditional receive Pell compared to 36 percent of traditional students.

Traditional students receive both state and institutional grant aid at a much higher rate and in larger amounts than neotraditional students. For instance, in 2000, 39 percent of traditional students receive institutional grant aid with an average award of $3,090 compared to 13 percent and 9 percent of moderately and highly neotraditional with an average award of $635 and $326 respectively. Overall, in 2000, 61 percent of traditional students receive some form of grant aid with an average award of nearly $5,177 while 51 percent, 49 percent and 56 percent of minimally, moderately, and highly neotraditional receive grant aid with average awards of $3,688, $2281, and $1,909, respectively. These differences have grown over time. It is worth noting that moderately and highly neotraditional students are less likely to borrow in 2000, but by 2016, traditional and neotraditional students borrow at similar rates and amounts.

In terms of out-of-pocket costs to total cost of attendance, we find that moderately and highly neotraditional students pay a greater proportion of costs out of pocket than do their traditional peers. We

might expect variation in this measure based on institutional selectivity. Unfortunately, there is a high degree of missingness of Barron's selectivity for our sample, so we opted not to include it in our main analysis. In an analysis of the subsample for whom we do have the Barron's selectivity indicator, we find that 44 percent of traditional students attend very selective or most selective four-year institutions relative to 31 percent and 17 percent for minimally and moderately/highly neotraditional students, respectively.

In comparison, the proportions of students receiving Pell, state, institutional, or any grant aid for the traditional and neotraditional students are more comparable at two-year institutions (Table 3). However, we note that both traditional and neotraditional students at two-year institutions tend to have lower rates of aid receipt, lower aid amounts, and higher out-of-pocket percentage costs than their peers at four-year institutions. In particular, in the 2000 wave only 47 percent of traditional students at two-year institutions received any grant aid and for an average amount of $1,700 relative to 61 percent of their counterparts at four-year institutions for an average amount of $5,200. By 2016, 69 percent of traditional students at two-year institutions received any grant aid and for an average amount of $3,600 relative to 78 percent of their counterparts at four-year institutions for an average amount of $10,500.

Table 4

Table 4. Descriptive statistics of academic outcome and school-year employment by institution sectors

	Wave: 2000				Wave: 2016			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	TS	Min NTS	Mod NTS	High NTS	TS	Min NTS	Mod NTS	High NTS
Panel A: Four-year Institutions								
Has any job	0.75	0.80	0.90	0.97	0.52	0.60	0.72	0.83
Hours worked per week	12.12	19.84	34.87	41.31	8.54	14.67	25.04	32.77
	(10.32)	(15.89)	(17.08)	(12.01)	(9.92)	(15.24)	(18.93)	(17.87)
GPA in first year	2.93	2.98	3.26	3.11	3.06	2.93	3.02	2.95
	(0.66)	(0.77)	(0.74)	(0.81)	(0.66)	(0.73)	(0.78)	(0.80)
Observations	11240	12300	10260	17350	16680	17220	13160	5620
Panel B: Two-year Institutions								
Has any job	0.83	0.86	0.84	0.94	0.61	0.61	0.69	0.83
Hours worked per week	18.46	26.43	31.11	39.01	12.51	16.37	23.88	31.37
	(10.84)	(16.01)	(18.43)	(13.99)	(11.44)	(15.63)	(19.04)	(17.40)
GPA in first year	2.65	2.59	2.95	2.89	2.81	2.73	2.92	2.88
	(0.82)	(0.97)	(0.97)	(0.97)	(0.84)	(0.88)	(0.85)	(0.86)
Observations	990	2290	3610	4280	2360	6950	6060	2880

Note. Standard deviations are in parentheses. Minimally NTS has one characteristic, moderately NTS has two or three characteristics, and highly NTS has four or more. Proper weights for each wave are employed to represent national representative samples. All observations have been rounded to the nearest 10 per IES restricted data use. Hours worked per week include work-study and assistantship.

RQ5: How do academic outcomes and employment differ by neotraditional status?

To answer RQ5, Table 4 provides key academic outcomes and school-year employment statistics for students at four-year and two-year institutions. At four-year institutions, neotraditional students are, on average, more likely to have a job during the school year than their traditional peers. For instance, 80 percent, 90 percent and 97 percent of minimally neotraditional, moderately neotraditional, and highly neotraditional students respectively have a job relative to 75 percent of traditional students in the 2000 wave, and similarly, neotraditional students work longer hours (Table 4). The GPA of traditional students seems to be slightly worse than neotraditional students in the early waves but reverses over time. At two-year institutions, neotraditional students are also more likely to work and work longer hours than traditional

students, but the differences are not as stark as for students at four-year institutions (Table 4, Panel B). For instance, in the 2000 wave 86 percent of minimally neotraditional students are likely to have a job and work on average 26.4 hours a week relative to 83 percent of traditional students who work for 18.5 hours per week. This difference is stark when we look highly neotraditional students where 94 percent has a job and works for nearly 40 hours per week. The academic performances of traditional and neotraditional students at two-year institutions are similar at four-year institutions. In sum, at both two-year and four-year institutions, we observe differences in these experiences between traditional and neotraditional students, and these differences also seem to exist among neotraditional students.

While Tables 1 through 4 indicate there are likely substantial differences between traditional and neotraditional students in various ways, we also test whether these differences are statistically significant (Appendix Table 4). Column 1 of Appendix Table 4 provide the differences for all the demographics, aid, and academics and employment measures between minimally NTS and traditional students, while Columns 2 and 3 examine these differences between moderately and highly neotraditional and traditional students at four-year institutions. This is replicated in Columns 4-6 respectively for students at two-year institutions. We observe the relationships discussed previously are statistically significant: traditional students are more likely to be White, more likely to have parents with bachelor degrees or higher, more likely to receive grant aid, less likely to borrow, have lower out-of-pocket expenses as a percentage of total cost of attendance, are less likely to have jobs, and work substantially less, than neotraditional students at four-year and two-year institutions. We also observe that the differences between traditional and minimally NTS are significant for almost every variable that we have discussed, providing substantial empirical evidence for our conceptual argument that these two sets of students should not be grouped together as minimally neotraditional.

Discussion

In this study we illuminate the nature and prevalence of neotraditional student enrollment and demonstrate the need to maintain a multidimensional perspective when studying "nontraditional" or "adult" students. Our descriptive analysis shows that millions of students exhibit many elements of neotraditionality and the majority of postsecondary students at four-year and two-year institutions are outside the traditional conception of undergraduates. About 6 and 9 out of 10 students at four-year and two-year institutions exhibit at least one neotraditional characteristic, respectively. In communicating the multidimensionality of the plurality of college students, we demonstrate that it is conceptually and empirically important to distinguish between traditional students and neotraditional students, as well as between neotraditional students who exhibit different concentrations of neotraditional characteristics. There are differences between traditional students, defined in our study as students who do not exhibit any neotraditional characteristics, and those students who exhibit even one neotraditional characteristic. The scale commonly used to calibrate neotraditionality should be updated accordingly. Our observation of the distribution of life experiences attends to the important fact that the realities of postsecondary students are more than just students' chronological age.

We observe that traditional students are systematically different from neotraditional students in terms of demographics, aid receipt, academics, and school-year employment. In particular, neotraditional students are more likely to be first generation college students and, consequently, they may lack the support of family in navigating the postsecondary landscape, which may negatively influence their persistence (George-Jackson & Gast, 2015; Horn & Carroll, 1996). Neotraditional students are also more likely to be financially independent, which affects their expected family contribution, and receive less grant aid, which has been shown to have positive effects on persistence and degree attainment (Nguyen et al., 2019). Lack of aid can lead to increased financial stress, which can contribute to decreased persistence and retention (Britt et al., 2017). One potential reason driving receipt of less grant aid is a higher propensity to work among this population. For example, prior research has identified that students who are parents are more likely to be

working and, consequently, are likely to qualify for less financial aid (Goldrick-Rab & Sorensen, 2010). Our results are consistent with the prior literature. We find that as a measure of percent of total cost of attendance, neotraditional students tend to have higher relative out-of-pocket costs. Neotraditional students also tend to attend less prestigious or open-access institutions, which have lower persistence and graduation rates (Choy 2002; Snyder & Dillow, 2011).

Moreover, neotraditional students tend to live off campus, have jobs more often, and work substantially longer hours, which could negatively affect their academic and social integration and, subsequently, their persistence and attainment (Braxton, Hirschy, & McClendon, 2004; Tinto, 1993). Our findings firmly align with the human capital theory and further build on and contribute to the models of neotraditional student persistence and attrition. Moreover, our findings contribute to a growing knowledge about the state of neotraditional students' finances, which is integral to individuals' ability to enroll and persist in postsecondary education (Chen & Hossler, 2017). Neotraditional students also tend to take fewer classes than their traditional peers, which may impede their academic momentum, increase risks of dropping out, and delay attainment (Attewell et al., 2012). This aligns with recent findings that postsecondary students with younger children have less time to invest in their coursework, and that there is a relationship between this "time poverty" and credit accumulation and persistence (Wladis et al., 2018). In short, most of the indicators that separate neotraditional from traditional students are likely to contribute to greater drop out risk. Overall, we demonstrate that along common measures, the postsecondary experience of neotraditional students is substantively different from their peers who have not had the same life experiences.

Our findings have a number of implications for policy, practice, and research. First, we call on stakeholders, particularly those in the research community, to push on the commonly used conceptualization of "nontraditional" status. Our analysis reveals differences in background, patterns of enrollment, financial aid receipt, academics, and employment between students who exhibit no neotraditional characteristics and their peers who exhibit even one neotraditional characteristic. In both theory and practice, we argue that the on-campus experience of students who do not exhibit any of the nontraditional characteristics and that of those who exhibit even one of these characteristics will be markedly different. Thus, it may not be appropriate to continue to use a combined category for traditional students and students with one neotraditional status indicator. Such a categorization does not acknowledge that students who are financially independent, supporting either a child or other relatives, or being single parents have a substantively different experience from their "traditional" peers who have none of these responsibilities or experiences (Choy, 2002; Chung et al., 2014). The realities and challenges that single parents or students with full-time employment or student veterans face while attending college are not comparable to those who are 18-years-old, enroll immediately after high school, and may rely on their families for some financial assistance (Sansone & Segura, 2020). Therefore, as we have delineated in our analysis, we propose recalibrating the neotraditionality scale to categorize traditional students, those without any neotraditional indicators, separately from students with neotraditional indicators. Based on our analyses, we agree with prior research that students with two or three, and four or more indicators should be categorized as moderately and highly neotraditional, respectively. We believe that this adjustment to the classification more accurately reflects students' realities, per the empirical evidence exhibited herein that minimally neotraditional students are descriptively different from traditional students in terms of demographics, financial aid receipt, and academic and concurrent work experience.

Towards this end, we further argue that the nomenclature of "nontraditional" should be updated to neotraditional as we have seen they have become the majority in the 21st century. The typical college student is no longer an 18-year-old undergraduate who enrolls directly out of high school with the financial help of their parents. We see the differential experience of neotraditional students reflected in their financial aid receipt and academic and concurrent work experience, which stands in contrast with the historical "traditional" undergraduate. Scholarly and practice-oriented language should reflect this demographic shift.

Over time these students with adult responsibilities, who were once less conventional postsecondary students, have become the new traditional students. The shift of nomenclature to neotraditional students will direct important attention on the part of researchers and policy makers to this important and critical shift. Opportunely, the use of this term, which is similar to today's "nontraditional student" designation, will ease the transition of how stakeholders discuss this population, as the abbreviation will remain NTS.

Beyond implications for nomenclature and classification, our findings also highlight the importance of additional and more granular data about students' life roles and experiences while in college. These data would facilitate a better understanding of students' needs and demands on their time. For instance, collecting information on the number of dependents a student has and their ages would provide insight into the time and resource constraints that student parents face and how that might shape their college experience. A commitment to supporting students, and particularly to supporting neotraditional students, must involve more detailed data collection, thoughtful analysis, and targeted intervention.

The picture of neotraditional students and differences between students along the spectrum of neotraditionality should be a call to arms for states and systems of higher education. The descriptive analysis presented above is nationally representative. We encourage states to take stock of the magnitude and nature of neotraditional enrollment at their institutions. We encourage institutions to examine the composition of their student population and assess the degree to which students of different neotraditional profiles find success under their charge. For instance, institutions need to consider how social media interacts with neotraditional students and how it can be used to recruit and welcome these students to their campus (Melchiorre & Johnson, 2017; Wilson, 2013) or the effects of the COVID-19 pandemic on their academic and non-academic experiences (Babb et al., 2021; Dreznick, 2022). Moreover, with a clearer picture of the student body and their realities, policymakers and practitioners will be better equipped to develop policies, budgets, and on-campus supports for students. As recent work illustrates the importance of on-campus relationships and supports (Rucks-Ahidiana & Bork, 2020), we recommend that financial aid offices train their staffs to better serve neotraditional students. These students may enroll in college with previous credit problems or bouts of enrollment that may limit their eligibility for financial aid. Their financial independence and previous life events may present complications for aid application and receipt that challenge the knowledge and abilities of financial aid counselors, which may discourage students or lead to problems with aid receipt, bill payment, and enrollment. Furthermore, given these aforementioned financial considerations, we urge practitioners and policymakers to examine whether the neotraditional students they serve pay a greater proportion of college costs out of pocket than "traditional" students on campus.

We join other scholars in calling attention to this understudied majority in United States higher education and encourage the collaboration between policymakers, practitioners, and researchers as the former groups undertake the important work of clarifying the nature and needs of neotraditional students on their campuses (e.g., Compton et al., 2006; Donaldson & Townsend, 2007; Renn & Reason, 2021). Our work illustrates, conceptually and empirically, the differences between traditional students and neotraditional students, ranging from their background to financial aid receipt to academic outcomes and work experience. We urge the collaboration between policymakers, practitioners, and scholars to design research and interventions that consider the whole student, accounting for various lived experiences that make them the new traditional.

Our work has an important limitation that future studies need to address. Since we use cross-sectional data, we cannot compare year-to-year persistence and degree attainment for "traditional" and neotraditional students. If "traditional" and neotraditional students persist at similar rates, then we may be less worried about the differences among these groups. However, based on our descriptive findings, particularly around aid, academics, and employment characteristics, and knowledge derived from prior research, neotraditional students are likely more at risk of departure than traditional students. It is then

important to examine the persistence and degree attainment rates for neotraditional students as well as the factors that may influence these students to dropout. Relatedly, most postsecondary research and supports are geared towards traditional students, even though as we have demonstrated here that most students are "neotraditional" in some shape or form. Furthermore, while this current work highlights the prevalence of neotraditional students and how they are systematically different than traditional students, it does not examine whether there are groups or profiles of students who are likely to have different types of neotraditional indicators (such as independent students who also work full time or parents who delayed college by several years) via methods such as latent class analysis or cluster analysis. As a first step, we should determine how many of these groups of neotraditional students there are and how they are substantively different from one another. Using national data to explore these latent classes would provide a broader picture of different types of neotraditional students and may suggest different interventions and policies that may efficiently target each group and provide the support they need. Furthermore, it would also be compelling to use institution-specific data to examine how these groups are distributed at individual institutions in order to provide practitioners with clear institution-specific interventions and policies that best serve their students' needs. We strongly urge future research to examine this path that could substantially change how institutions think about their neotraditional students and how to best use limited resources to help these students.

Conclusion

We add our voices to those who have called for more research on neotraditional students, not only as participants, but as the explicit target of the research questions (e.g., Donaldson & Townsend, 2007; Wlodkowski, 2003; Wlodkowski & Westover, 1999). States and institutions are increasingly announcing their commitment to enroll and support these neotraditional students. However, without a clearer picture of the potential enrollees and the current student body, important opportunities to tailor interventions to the needs and experiences of students will be missed. A student body that is largely traditional age, works full-time, and attends class part-time stands to benefit from different supports from one in which most students delayed enrollment after high school and are single parents enrolled full-time. Because individual students and their other neotraditional peers are likely to engage with campuses and academic material in unique ways, defining who they are is a critical task. Educational policies and practices should be designed using complete, up-to-date analysis. Current discussions about much needed changes to federal financial aid programs should be based on an understanding of the profile of neotraditional students in the 21st century. Federal COVID-19 postsecondary relief fund allocation guidelines would have benefited from being informed by a complete and current picture of neotraditional students across the country. Our work provides this most up-to-date analysis of neotraditional students and fills a gap in the literature. This comprehensive picture of contemporary neotraditional students can be used by institutions, states, and the federal government to inform the design of policies and practices as well as by researchers to inform and inspire a research agenda that is more focused on building evidence to support the new majority of college students. Based on our findings, future work should examine outcomes for neotraditional students separately from what used to be the traditional students, and future interventions should consider how programs may or may not serve neotraditional students of various profiles. For instance, most well-known and well-funded interventions do not provide daycare for students who have children, which may greatly affect how some students take classes and plan their schedules. We hope our work will contribute to new lines of research and focus for this multidimensional majority group of postsecondary students.

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Appendix Tables and Figures

Appendix Table 1. Variable descriptions

Variable	Description
Demographics	
Female	A dichotomous variable where 1=female and 0=male
White	A dichotomous variable where 1=White and 0=non-White
Black	A dichotomous variable where 1=Black and 0=non-Black
Hispanic	A dichotomous variable where 1=Hispanic and 0=non-Hispanic
Asian	A dichotomous variable where 1=Asian and 0=non-Asian
Other	A dichotomous variable where 1=other race/multi-race and 0=non-other race/multi-race
Parents' education: HS or less	A dichotomous variable where 1=parental education of high school or less and 0=otherwise
Parents' education: some college	A dichotomous variable where 1= parental education of some college and 0=otherwise
Parents' educ: BA or higher	A dichotomous variable where 1= parental education of bachelor degree or higher and 0=otherwise
Financial Aid	
Pell receipt	A dichotomous variable where 1= having a Pell Grant and 0=otherwise
Pell grant amount	A continuous variable of the amount of Pell grant received
SEOG receipt	A dichotomous variable where 1= having an SEOG grant and 0=otherwise
SEOG amount	A continuous variable of the amount of SEOG grant received

State grant receipt	A dichotomous variable where 1= having a state grant and 0=otherwise
State grant amount	A continuous variable of the amount of state grant received
Inst. grant receipt	A dichotomous variable where 1= having an institutional grant and 0=otherwise
Inst. grant amount	A continuous variable of the amount of institutional grant received
Any grant receipt	A dichotomous variable where 1= having any grant and 0=otherwise
Total grant amount	A continuous variable of the total amount of grant aid received
Loan receipt	A dichotomous variable where 1= having a loan and 0=otherwise
Total loan amount	A continuous variable of the amount of loan taken
Perc out of pocket to total cost	The ratio of out-of-pocket costs to total cost of attendance, including room and board
Academics and Employment	
Has any job	A dichotomous variable where 1= having any job on campus during the year and 0=otherwise
Hours worked per week	A continuous variable of the amount of hours worked per week
GPA in first year	The grade point average in the first year

Appendix Table 2. Proportion of students by nontraditional indicator for all institutions

NTS indicator	2000 wave	2004 wave	2008 wave	2012 wave	2016 wave	Pooled
Panel A: All Institutions						
Independent	0.533	0.503	0.470	0.510	0.493	0.500
Part-time enrollment	0.437	0.452	0.467	0.432	0.478	0.453
Delayed enrollment	0.356	0.384	0.311	0.340	0.351	0.347
Full-time employment	0.333	0.327	0.322	0.258	0.252	0.296
Have dependents	0.273	0.271	0.254	0.274	0.239	0.262
Single parent	0.112	0.132	0.134	0.151	0.136	0.135
No HS or GED	0.052	0.084	0.073	0.090	0.079	0.077
Observations	48790	79850	113540	93760	89220	425160
Panel B: Four-year Institutions						
Independent	0.489	0.386	0.366	0.430	0.413	0.415
Part-time enrollment	0.331	0.295	0.285	0.292	0.344	0.309
Delayed enrollment	0.262	0.264	0.217	0.265	0.277	0.257
Full-time employment	0.268	0.255	0.248	0.223	0.206	0.239
Have dependents	0.211	0.181	0.181	0.224	0.192	0.198
Single parent	0.075	0.082	0.091	0.116	0.104	0.095
No HS or GED	0.025	0.045	0.040	0.063	0.057	0.047
Observations	33780	34710	58760	43920	52680	223870
Panel C: Two-year Institutions						

Independent	0.601	0.618	0.582	0.603	0.598	0.600
Part-time enrollment	0.612	0.638	0.682	0.603	0.678	0.644
Delayed enrollment	0.494	0.508	0.412	0.429	0.455	0.455
Full-time employment	0.440	0.407	0.411	0.309	0.314	0.371
Have dependents	0.361	0.359	0.331	0.332	0.294	0.334
Single parent	0.159	0.178	0.175	0.188	0.170	0.176
No HS or GED	0.090	0.120	0.106	0.118	0.105	0.110
Observations	6880	26660	31560	33530	18250	116870

Note. Proper weights for each wave are employed to represent national representative samples. All observations have been rounded to the nearest 10 per IES restricted data use.

Appendix Table 3. Rate of nontraditional students' status

Sum of NTS status	2000 wave	2004 wave	2008 wave	2012 wave	2016 wave	Total
Panel A: All Institutions						
0	0.259	0.276	0.300	0.264	0.273	0.275
1	0.186	0.166	0.177	0.188	0.199	0.183
2	0.147	0.135	0.134	0.155	0.148	0.144
3	0.158	0.150	0.136	0.156	0.140	0.148
4	0.140	0.140	0.130	0.129	0.124	0.132
5	0.084	0.092	0.085	0.078	0.081	0.084
6	0.024	0.037	0.034	0.027	0.030	0.031
7	0.003	0.004	0.004	0.003	0.004	0.003
Total	1.000	1.000	1.000	1.000	1.000	1.000
Observations	48790	79850	113540	93760	89220	425160
Panel B: Four-year Institutions						
0	0.351	0.431	0.466	0.395	0.404	0.411
1	0.203	0.175	0.166	0.179	0.190	0.182
2	0.131	0.114	0.101	0.124	0.112	0.116
3	0.144	0.111	0.103	0.124	0.110	0.118
4	0.106	0.094	0.091	0.101	0.097	0.098
5	0.052	0.054	0.052	0.057	0.062	0.056
6	0.012	0.018	0.019	0.019	0.022	0.018

7	0.002	0.002	0.002	0.002	0.003	0.002
Total	1.000	1.000	1.000	1.000	1.000	1.000
Observations	33780	34710	58760	43920	52680	223870
Panel C: Two-year Institutions						
0	0.120	0.118	0.123	0.114	0.103	0.116
1	0.160	0.157	0.184	0.193	0.203	0.181
2	0.169	0.154	0.167	0.191	0.196	0.176
3	0.179	0.187	0.173	0.194	0.182	0.183
4	0.187	0.187	0.172	0.162	0.161	0.173
5	0.135	0.131	0.122	0.104	0.108	0.119
6	0.045	0.059	0.053	0.038	0.042	0.047
7	0.004	0.006	0.006	0.004	0.006	0.005
Total	1.000	1.000	1.000	1.000	1.000	1.000
Observations	6880	26660	31560	33530	18250	116870

Note. Proper weights for each wave are employed to represent national representative samples. All observations have been rounded to the nearest 10 per IES restricted data use.

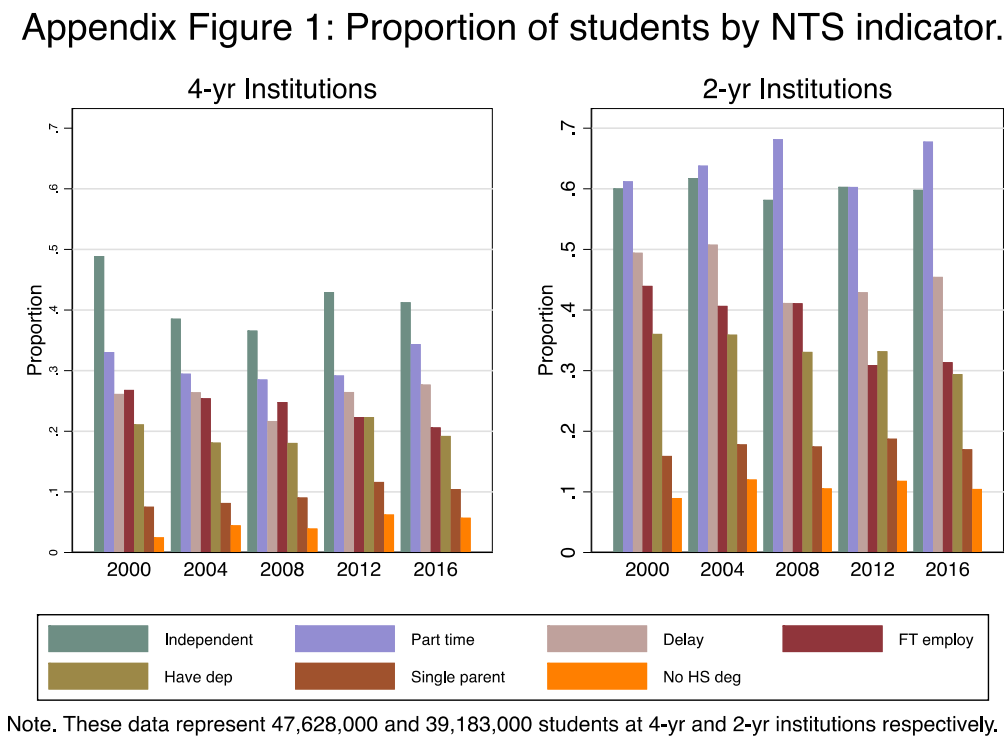
Appendix Table 4. Differences in demographics, aid, and academics and enrollment variables by nontraditional status

Variables	Four-year Institutions			Two-year Institutions		
	Min-TS	Mod-TS	High-TS	Min-TS	Mod-TS	High-TS
Panel A: Demographics						
Female	-0.03**	0.00	0.09**	-0.02*	0.03**	0.13**
White	-0.06**	-0.07**	-0.14**	-0.04**	-0.02**	-0.07**
Black	0.02**	0.04**	0.14**	0.01*	0.02**	0.10**
Hispanic	0.03**	0.03**	0.03**	0.02**	-0.01	-0.01*
Asian	0.01**	-0.01**	-0.04**	0.01*	0.00	-0.01**
Other	0.00*	0.00*	0.00+	0.00	0.00	0.00
Parents' education: HS or less	0.06**	0.17**	0.28**	0.02*	0.08**	0.19**
Parents' education: some college	0.02**	0.04**	0.05**	-0.01*	-0.03**	-0.05**
Parents' educ: BA or higher	-0.08**	-0.21**	-0.32**	0.00	-0.05**	-0.14**
Panel B: Aid						
Pell receipt	0.04**	0.07**	0.15**	-0.05**	-0.07**	0.02**
Pell grant amount	98.13**	83.04**	266.3**	-318.59**	-456.16**	-232.6**
SEOG receipt	0.00*	-0.01**	0.00	-0.02**	-0.02**	0.01*
SEOG amount	-18.2**	-38.41**	-44.53**	-13.11**	-10.64**	-1.54
State grant receipt	-0.07**	-0.15**	-0.16**	-0.07**	-0.10**	-0.09**

State grant amount	-375.83**	-677.8**	-758.85**	-156.68**	-222.66**	-228.06**
Inst. grant receipt	-0.16**	-0.27**	-0.33**	-0.06**	-0.08**	-0.09**
Inst. grant amount	-2101.87**	-3426.99**	-3935.18***	-217.39**	-277.12**	-293.08**
Any grant receipt	-0.10**	-0.14**	-0.05**	-0.1**	-0.12**	-0.02**
Total grant amount	-2669.04**	-4369.3**	-4696.48***	-834.61**	-1108.82**	-878.28**
Loan receipt	-0.04**	-0.06**	-0.07**	-0.04**	-0.04**	-0.03**
Total loan amount	199.05**	241.86**	-205.51**	-201.51**	-71.14*	-66.15*
Perc out of pocket to total cost	0.03**	0.05**	0.04**	0.04**	0.05**	0.02**
Panel C: Academics and Employment						
Has any job	0.09**	0.15**	0.24**	-0.01	0.01	0.11**
Hours worked per week	6.39**	13.89**	22.73**	2.93**	8.75**	16.05**
GPA in first year	-0.13**	-0.05**	-0.02*	-0.14**	0.07**	0.16**

Note. Nationally-representative weights are employed. TS, Min, Mod and High represent traditional students, minimally nontraditional, moderate and highly nontraditional respectively. Robust standard errors are utilized.

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$



Appendix Figure 1. Proportion of students by neotraditional indicators over time