Adult Learners: A Literature Review

A summary of data, evidence, and ongoing questions around adult learners in the U.S. postsecondary system

AT A GLANCE

This report reviews of adult learners in the context of the U.S. postsecondary system, with a particular interest in online settings and Black learners. The report examines data around enrollment, persistence and demographics, before reviewing scientific evidence regarding adult learner practices.

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Introduction & Methods

Adult learners make up a significant portion of college and university students in the United States, but awareness and data around this population and their challenges, particularly for students enrolled in online programs, are lacking. Practitioners and others in the ecosystem also lack research into the experiences of adult students disaggregated by gender, race, and ethnicity. Given the ways in which student challenges and opportunities for postsecondary persistence, engagement, and completion differ for these groups, gaps in understanding limit the ability of postsecondary institutions and policy-makers to better support adult learners on their journeys to post-secondary degrees and credentials that position them for economic success. To address these gaps, JFF investigated the available literature and evidence on adult learners, including their collective characteristics, experiences, and outcomes. This report takes a particular focus on two sub-populations of adult learners: online learners and Black learners, both of which are populations with unique challenges and needs. We focus on several research questions to guide our inquiry and discussion:

- What is the current available data on adult learners in the U.S. postsecondary education system? What do we know about their enrollment by race, online status, and other demographic factors?

- What are the risk factors and barriers associated with adult postsecondary learners, and how do these differ by demographic characteristics?

- Are there particular practices that have been shown to be promising in supporting these learners' persistence and completion?

- What metrics are used to assess success among adult learners? Do the differences and challenges in this population affect how institutions serving these learners are assessed?

As we begin this review, it is helpful to define our terms and our methods.

- **Age**: Our focus is on adult learners, defined as age 25 and older; this is contrasted with "traditional-age college students," who are 18-24 years old. This definition is consistent with industry standards, and aligns with data reported to, and collected by, the Department of Education and its divisions, such as the National Center for Education Statistics.

- **Status**: This report focuses primarily on undergraduate-level students and learning, as graduate-level students represent a separate demographic in the postsecondary education space, with different implications for economic mobility.

- **Sources**: This report utilizes data and findings from a variety of different sources.[1] Sources include a mix of peer-reviewed publications in academic sources and other formal studies, as well as "gray literature," which includes briefs, memos, and other sources from nonprofits and think tanks in the field.

- Academic sources are primarily drawn from searches on relevant databases and search engines, most notably JSTOR, Google Scholar, and the Education Resources Information Center (ERIC, under the U.S. Deptartment of Education).
    - This brief draws on a review of more than 75 sources, primarily since 2014, occasionally utilizing older sources for foundational knowledge and context.

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[1] Key search terms included combinations of the following: "adult learners"; "postsecondary"; "college"; "online"; "Black learners"; "minority learners".

- Data on adult learner postsecondary enrollment and outcomes comes primarily from federal sources under the purview of the U.S. Department of Education, including the National Center for Education Statistics (NCES), which publishes both raw and summarized data in various settings. Additional data comes from industry organizations such as the National Student Clearinghouse (NSC).

This report reviews the currently available data on adult postsecondary learners followed by a discussion of the literature and evidence on adult learners, with an exploration of learners in online-specific settings as well as Black learners. It focuses primarily on characteristics and evidence that are unique to the adult learner population. As such, there are some topics that are relevant to adult learners but are not necessarily discussed in depth here. One example is financial status and education affordability, which is a factor for many adult learners, but also for younger and traditional learners. Additionally, this report focuses primarily on the relationship between students and institutions and does not delve deeply into specific policy recommendations for state or federal governments. While the data and evidence discussed here are relevant to policy considerations, the role of state and federal decision-making is beyond the scope of this brief.

Adult Learners in Postsecondary Education:

Enrollment, Persistence, and Demographics

According to the latest data from the National Center for Education Statistics (NCES), students 25 or older represent approximately 1/3 of all enrolled college students, making up 6.4 million of the total 19 million postsecondary student population. As shown in Figure 1, this share has remained between 33-40% of all students over the last two decades; however, both the overall number of college students and share of adult students have declined slightly over the last 15 years. At the peak in 2011, there were approximately 8.5 million students aged 25 or older, representing 39.6% of the total postsecondary population.
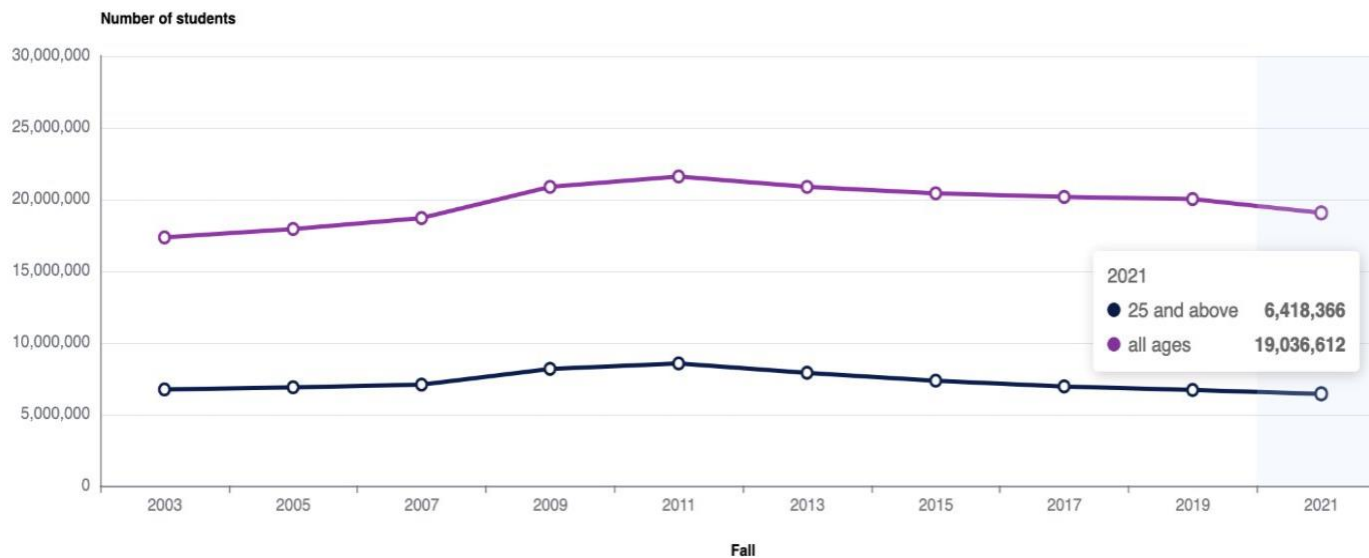
Number of students

	2021	
● 25 and above	6,418,366	
● all ages	19,036,612	

Figure 1: College enrollment by total and 25-and-over since 2003. Retrieved from NCES, 2024.

Publicly available data provide further insight into the demographic characteristics of these students,

but there remain some notable data deficiencies, particularly around race and online status, which are of particular interest to our review. Through NCES, the Integrated Postsecondary Education Data System (IPEDS) provides college-level data on adult learners, including by enrollment status, gender, and type of institutions, summarized here in Table 1.

Table 1: Key Enrollment statistics by age (undergraduate only)		
	Students age 25+	Students age 18-24
Percent female	63%	55%
Percent enrolled part-time	62%	23%
Percent at public institution	75%	83%

As shown in Table 1, a greater share of adult learners are female, more are enrolled part-time, and relatively fewer adult learners are enrolled at a public institution (though public institutions still serve most adult learners). Data around race and adult learners is less immediately accessible, but according to data from the National Student Clearinghouse, adult students are more likely to be Black; analyzing student data for which both race and age were available, Black students make up nearly 19% of the 25-and-over undergraduate population, compared to just 10.5% of the 18-24 undergraduate population (as of Fall 2023).
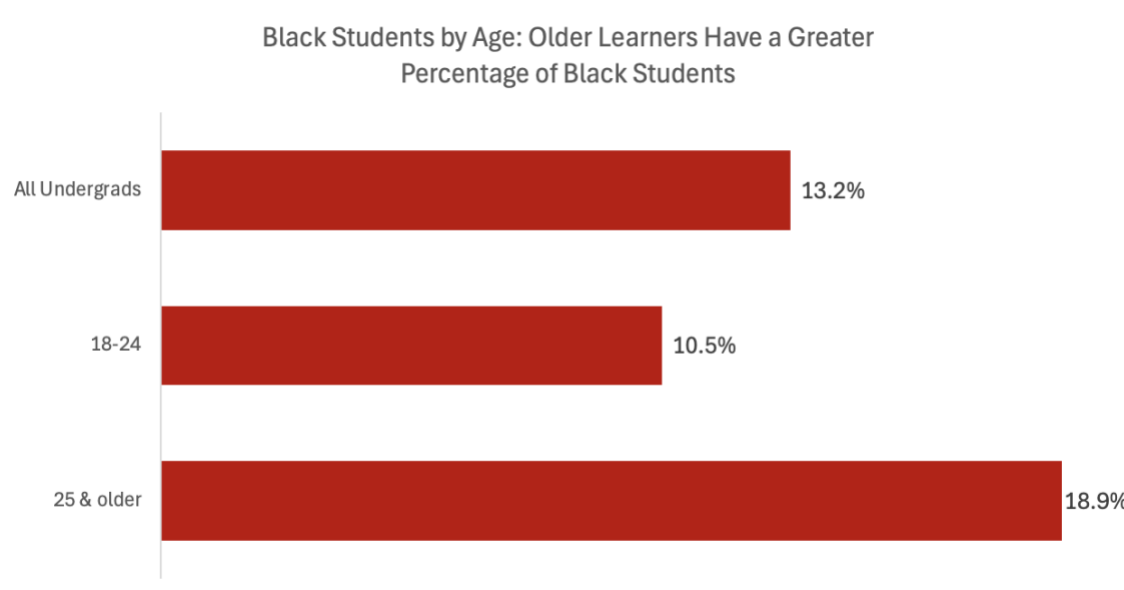

Figure 2: Percentage of Black students by age category, undergraduates only. Author's summary of NSC data.

Data around the relationship between online status and age is even more challenging to find, particularly on an aggregate level. Online status of a student is not a fixed characteristic, and thus not reported in the same way as race, gender, and other enrollment statistics. This makes it difficult to answer research questions such as, "How does the utilization of online platforms differ by age among college students?" However, we can look to see how an institution's share of adult students compares to their share of online students, as colleges do report the number of students who are exclusively enrolled in distance learning. In Figure 3, we plot these relationships with institutional data drawn from IPEDS, with each data point representing an individual institution. Here, we see a positive relationship between the share of adult learners and online learners: colleges with more adult learners tend to have a higher share of students who are exclusively online.
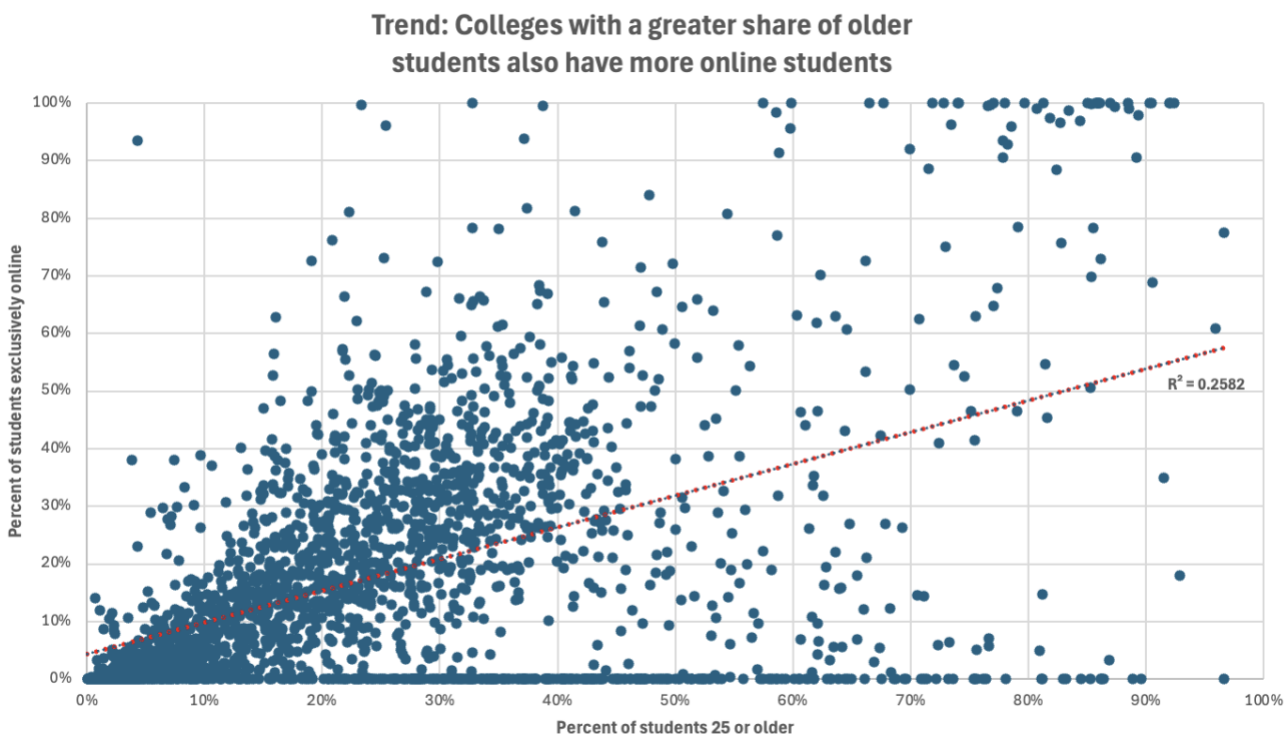

Figure 3: Institutions' shares of adult and online learners, undergraduates only. Author's own analysis of IPEDS data.

The relationship between adult and online learners can also be seen by dividing institutions into primarily online (50%+ students exclusively online) or not; at primarily online colleges, the average proportion of the student body 25 or older is 52%, compared to only 22% among all other colleges (Author's analysis of IPEDS data).

Caretaker responsibilities and working while enrolled are two key characteristics among adult learners, but are more challenging to measure on a broad scale, as these are not formally collected and reported by institutions in the same manner as age, gender, and enrollment status. The best and most recent source of this information is the National Postsecondary Student Aid Study, which draws on data from 2016 (*National Postsecondary Student Aid Study*, 2016). According to the study, intensity of work increases significantly among students 24 or older, compared to those aged 18-23. Fewer than 14% of students aged 23 or younger worked full time, but that number rose to 39% among 24- to 29-year olds, and 46% among students 30 or older. As expected, there are also significant differences in parenthood status by age. Fewer than 8% of students 23 or younger had a dependent, compared to 33% of 24- to 29-year olds, and more than 60% of students over 30. Regarding age and gender, the study shows that in general, more female students have a dependent than males (29% compared to 17%), and more Black students had dependents than white students (35% compared to 22%). These gender and race figures are not further broken down by age group.

Beyond demographics, we also know some information about the fields of study pursued by adult learners. Table 2 examines which fields of study are most common among adult learners compared to their under-25 counterparts, filtering for fields with at least 50,000 adult learners overall (*Digest of Education Statistics*, 2023). When looking at this age breakdown, there is not further categorization available by gender and/or race. Here, we see that health-related fields are highly prominent and relatively overrepresented among adult learners, along with business-related fields.

Several other fields, led by construction trades, have lower overall totals, but high proportions of adult learners.

Table 2: Most common fields of study among adult students (minimum 50,000)		
Field of Study	Percent of students 25 or older	Total of students 25 or older
Construction trades	62%	51,045
Health professions and related sciences	50%	1,524,600
Mechanic and repair technologies	49%	67,896
Family and consumer/human sciences	49%	78,570
Culinary, entertainment, and personal services	48%	99,484
Public administration and social services	48%	107,100
Legal professions and studies	46%	58,695
Engineering technologies/technicians	45%	110,005
Business, management, and marketing	38%	915,285
Security, law enforcement, firefighting, and related protective services	37%	212,750
Computer and information sciences	36%	329,154
Education	34%	294,637

Source: Digest of Education Statistics, 2023.

Finally, it is necessary to discuss student persistence, defined as the year-to-year continuing of postsecondary education at any institution (not necessarily the same institution). Data show that persistence is a significant issue for adult learners. In a 2024 report, the National Student Clearinghouse estimated that more than 36 million Americans have some college experience but no credential (*Some College, No Credential | National Student Clearinghouse Research Center*, 2024). The report estimates that nearly 90% of this "some college, no credential" population is 25 or older, and nearly 60% is 35 or older. This trend is supported by year-to-year examination of student persistence in U.S. institutions. We see in Figure 4 (*National Student Clearinghouse*, 2024) that

there is a drastic difference in persistence among students who enter college at age 21 or older, with another slight decline among students entering at 25 or older. Compared to students aged 20 or younger, these older students persist yearly at a rate over 30 percentage points lower, framing the discussion for the unique challenges faced by adult learners.
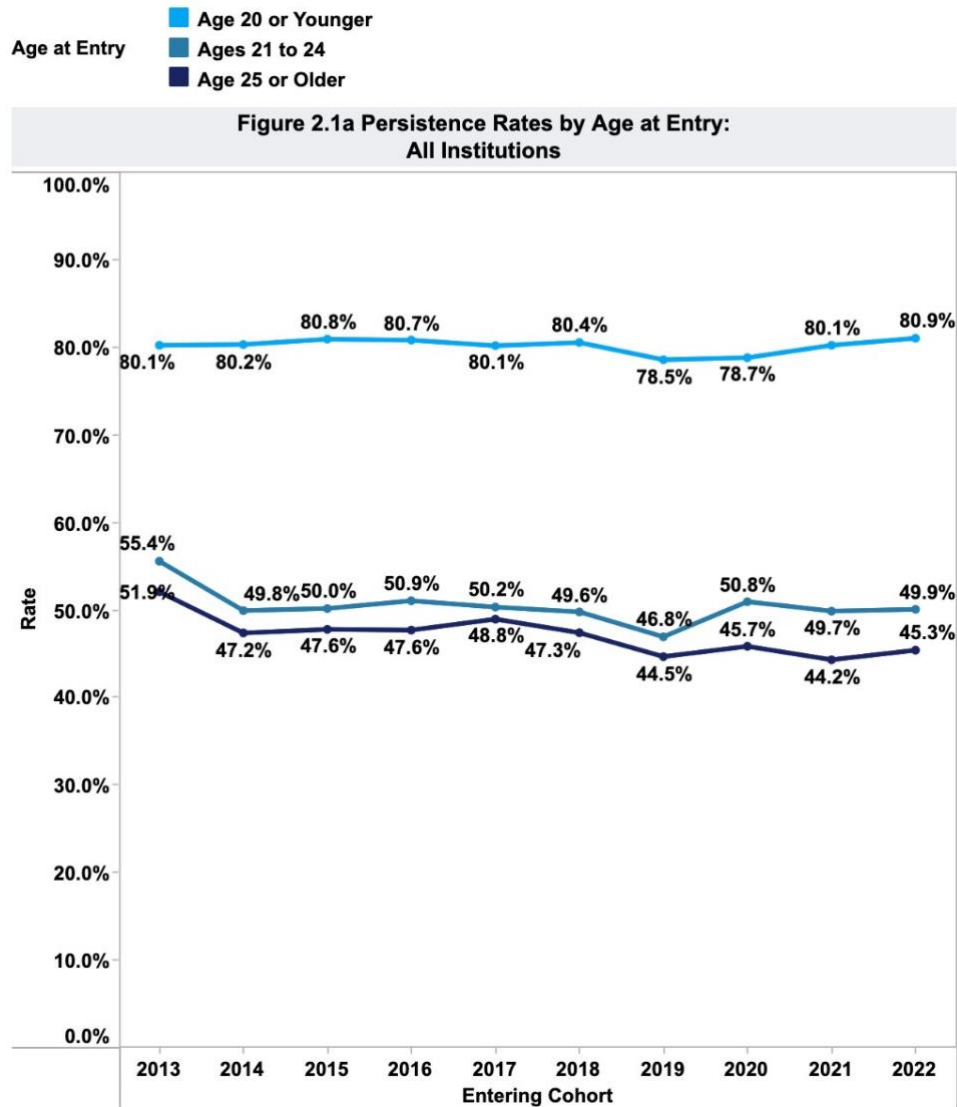

Figure 4: Student persistence by age (National Student Clearinghouse, 2024)

Literature and Evidence from the Field

**Foundational Theories and Concepts**

What makes adult learners distinct from their younger counterparts and worth considering separately? Part of the answer relates to their situational characteristics, including issues like parenthood and work status, which change how these learners interact with their education. But separately, there is a strong body of literature suggesting key dispositional differences in the way adults learn compared to younger students. This concept, known as andragogy, was first popularized by Malcolm Knowles and has been updated by Knowles and coauthors to comprise several key principles of adult learners (Knowles et al., 2020):

- **Need to know**: It is important for adults to understand the reason for learning something, and they will engage more deeply when they see the relevance and applicability of the material.

- **Self-directed learning**: Adults prefer to take on a more active role in guiding their learning, including the planning of goals and assessment of progress.

- **Lived experience**: Adults draw from their own experiences and use these as the basis for learning; connection to these lived experiences allows for deeper understanding of and engagement with the material.

- **Readiness**: Adults seek to learn things that are immediately relevant and applicable to their lives.

- **Orientation**: Successful adult learning is oriented around engaging with problems and practical challenges rather than simply taking in content.

- **Motivation**: Adults respond better to internal motivation (personal goals, career, etc.) than external requirements or motivators.

Taken as a whole, this framework about internal motivation provides a clear picture of how adult learners, in different life stages than younger students, may be considered psychologically distinct from younger students, particularly traditional college students enrolling directly out of high school. Younger students may have less life experience on which to draw and are often still in an exploratory phase of life in which they are developing priorities, goals, and motivations. As a result, younger students tend to need instruction that is more guided and broadly focused, compared to the self-directed style and immediate relevance to which adult learners respond.

Connecting Theory to Evidence – Adult Learners' Motivations

Although this framework is generally conceptual, it has been supported through literature examining the motivations of adult postsecondary learners, the body of which supports Knowles's primary principles. Regarding motivation, a recent survey (Gale et al., 2022) found that internal and personal factors were highly influential among adults who stopped attending college but later made the decision to re-enroll (see Figure 5).
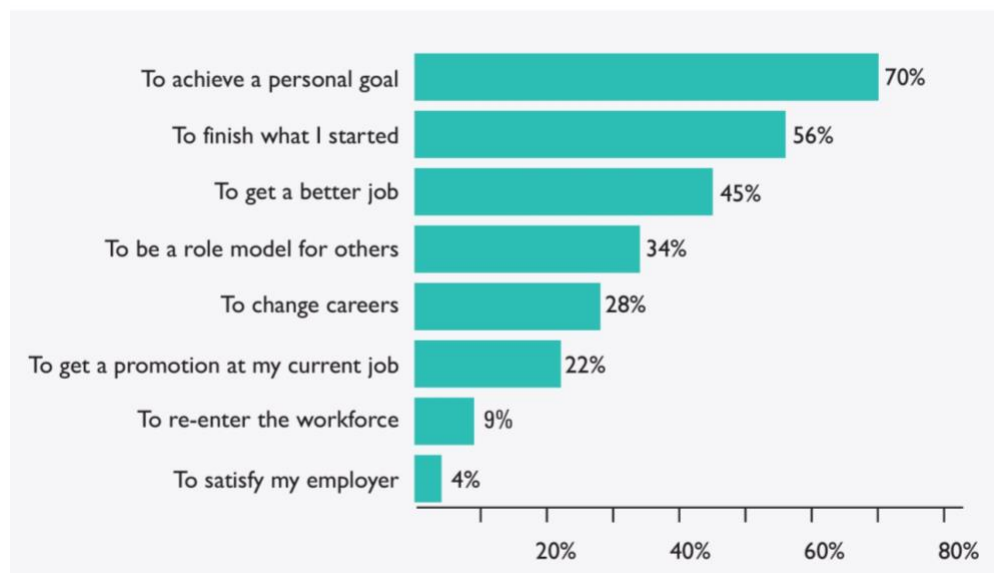
Figure 5: Reasons for Re-Enrolling in College (Retrieved from Lumina Foundation, 2022)

Additional literature shows that motivation among adult learners remains complex and varied, though the line between intrinsic and extrinsic motivation can be difficult to parse, particularly related to career paths. Knowles et al. (2005) proposed that career-related goals such as greater job satisfaction are inherently intrinsic, but goals such as promotions or salary increases are better characterized as extrinsic. Using this model, Gardner et al. (2022) found that adult learners were slightly more intrinsically motivated than extrinsically, but that extrinsic motivators still played a major role for adult learners. Their study accounted for income, employment, and other life situations, while also looking at race and gender differences—they found that women were more intrinsically motivated, while finding no difference by race. Additionally, Gardner found that extrinsic motivators were more common in certain fields of study (medical and technical fields) and among learners with more years of work experience, suggesting that labor market viability plays a role for many adult students in pursuing their studies. Van Rhijn et al. (2016) found similarly varied motivation among adult learners, identifying three top categories: occupation, abilities/education, and family.

Barriers and Risk Factors Among Adult Learners

As discussed earlier, data show that persistence and retention among adult postsecondary learners are a significant challenge compared to traditional-age students. Osam et al. (2017) conducted a meta-review on barriers among adult postsecondary students, dividing barriers into three categories in a framework originally proposed by Ekstrom (1972), now applied to the modern-day education landscape. They categorize barriers as situational, institutional, and dispositional, which are discussed in greater detail here, followed by potential policies and solutions.

Situational barriers are connected to the material life situation of the learner and may include family obligations (including parenting and childcare), financial constraints, balancing work, and commute/transportation. Data shows that degree completion rates within six years for college students with children was just 37%, compared to nearly 60% over that same timeframe for students without children (Gault et al., 2020). There remains a significant gap in the literature on studies

looking at the precise impact of parental status on degree completion, accounting for factors such as age, work, etc. More broadly, Augustine et al (2018) studied the time usage of mothers enrolled in college, as most student-parents are women (Noll et al., 2017), and found that these learners experienced a significant "time squeeze," with generally less happiness and greater fatigue. Literature on students working while in college indicates that while part-time work can be beneficial, particularly when related to field of study, greater working hours are detrimental to persistence and completion. Ecton et al. (2023) found consistent negative associations between hours of work and academic success, with stronger effects at greater hours of work. The University of Pennsylvania (*College Employment and Student Performance*, 2021) used longitudinal survey data to conclude that students working over 20 hours a week tended to have lower GPAs and took longer to complete their degree programs. Evidence on differences in the impact of work status on student success by race is currently lacking, although we know from the National Postsecondary Student Aid Study that Black students are slightly more likely to work higher-hour and full-time jobs; as such, it seems plausible that Black students may be more negatively impacted by work, but further inquiry is required to support this hypothesis.

Institutional barriers arise from policies and procedures at the learning institution, such as inflexible course schedules, admissions and advising systems that are challenging to navigate, and faculty with limited availability. Bergman et al. (2014) found that "institutional responsiveness" was a significant positive factor in student persistence among adult learners. In a study focusing on adult learners in accounting programs, Fortin et al. (2016) found that, among other factors, dissatisfaction with course options and requirements was a significant factor in students not continuing their education. Finally, accurate academic advising and extended faculty availability have both been identified as key priorities for adult learners transitioning back into postsecondary education (Hardin, 2008). Saar et al. (2014) noted that increased flexibility measures, such as schedule and mode of instruction, had some positive affect on adult students' perception of barriers to their studies.

Dispositional barriers result from person-specific attitudes, fears, and orientation toward the learning environment. This may include feeling out of place, lack of confidence in abilities, and wavering motivation. General fear and self-doubt is a major factor for many adult learners, especially in the enrollment and early stages of credential completion; fear and doubt is often connected to a lack of confidence after having been away from education, as well as being at a different age and life stage than other students (Bakes & Raymer, 2022). Similarly, Pastogianni & Koutsoukos (2018) found that stress and anxiety were significant factors among adult learners, particularly related to academic elements such as examinations and presentations.

Solutions and Practices for Adult Learners

Given the generally well-established challenges faced by adult learners, there are recognized practices that can ease their transition to postsecondary as well as improve retention and completion. It is worth noting that, while it is helpful to use the categories of barriers discussed earlier, these barriers often overlap and feed into each other. For example, dispositional barriers like fear and doubt are often related to situational barriers: adult students often have anxiety and stress around balancing work schedules (Pastogianni & Koutsoukos, 2018). Similarly, institutional barriers can exacerbate dispositional barriers, such as difficulty navigating college systems contributing to feelings of not belonging or being overwhelmed. Accordingly, useful practices may effectively address more than one category of barrier at a time.

Notable practices for addressing the barriers faced by adult learners include the following:

- **Transition programs**: Transition programs may take a variety of forms, but generally are a series of steps offered by colleges that serve to ease the shift into postsecondary education for adult learners through academic preparation, with many also focusing on issues such as academic advising, counseling, and admissions assistance (Hector-Masone et al, 2017; Karmelita, 2020). Evidence shows that transition programs can be effective at improving

academic preparation, and programs with strong advising components can effectively address dispositional barriers among learners (Kallison, 2017; Karmelita, 2020). However, current evidence is somewhat limited to specific locations and institutions; further inquiry could systematically examine traits of different transition programs, who they serve, and differences in which students (race, gender, other background) benefit most.

- **Prior Learning Assessment/Credit**: Assessing and awarding credit for prior learning allow learners to receive academic credit for certain experiences and knowledge gained outside of higher education courses, which can be a major factor for adult learners with significant life experience. Evidence shows that this can improve completion rates among adult students (Hayward & Williams, 2015) as well as increase confidence among students by validating their experiences and connection to academic learning (Klein-Collins & Olson, 2014).

- **Credit Transfer Pathways**: In the same vein as prior learning, the prioritization of credit transfer pathways is an institutional practice that can greatly ease transitions among adult learners, particularly from community colleges to 4-year institutions. However, this practice requires more coordination between institutions to streamline pathways and agree on requisite steps. This is likely an area that straddles both institutional practices as well as a potential policy initiative at the state and/or federal level (DePaul, 2023).

- **Flexibility for Students**: Given the situational challenges that many students face with family and career commitments, flexibility in course delivery is a frequently cited priority for many students, as online and evening courses allow learners to balance these competing priorities. However, students have also identified flexibility in institutional policies and procedures as a key factor (Howley et al., 2013). Beyond just scheduling, recognition of student challenges and related flexibility in both course management and institutional navigations (deadlines, registration holds, etc.) can have a major impact for adult students (Freeman & Julia Lawton, 2024; Remenick, 2019).

Evidence Specific to Online Settings

The scope of online learning varies greaty; here, we focus on evidence concerning instruction in which the entirety of the instruction occurs online, with a particular focus on adult learners. The body of evidence specifically examining adult learners in online settings is somewhat limited, but there are several valuable sources to draw on. When considering the above discussed barriers, the online setting limits or reduces many of the challenges associated with in-person learning, but general challenges around balancing time remain prominent, along with increased challenges related to technological competency (Kara et al., 2020). For adult learners who do well in online settings, satisfaction with the course(s) seems to be a key factor, as those who exhibit greater satisfaction have stronger results (Kuo & Belland, 2016). Examining which factors drive satisfaction, student-instructor engagement appears to be highly relevant (ibid), but the structure and design of the online course matters. Van Wart et al. (2020) found that the design, structure, and layout of online-only courses had a significant effect on learner satisfaction and success. Additionally, colleges may find that some practices normally associated with traditional college experiences may still prove useful; for example, Wright (2015) found that adult online learners taking the first course benefitted from a pre-orientation workshop, which improved retention and success. Another area of potential difference is between synchronous and asynchronous instruction; currently, the existing literature is quite limited, particularly concerning effectiveness among adult learners specifically. A 2024 meta-analysis (Zeng & Luo, 2024) found that asynchronous online learning was very slightly more effective at increasing student knowledge, but that the effect size was trivial. Given the growth in online learning and the salience for adult learners, this remains a key area of future research.

Evidence Specific to Black Learners

Black learners face significant challenges in higher education due to a variety of systemic and socioeconomic barriers that limit their success. In general, postsecondary persistence for Black students lags approximately 15% behind white students (National Student Clearinghouse Research Center, 2024). Black students cite several factors as significant barriers to postsecondary completion, including financial challenges, discrimination within colleges from faculty and/or fellow students, and lack of wraparound supports (Lumina-Gallup, 2024). However, much of the associated literature investigating these challenges provides more insight into traditional learners, and relatively little insight into Black adult learners, particularly those in online settings. Such literature on traditional students focuses on barriers faced by Black students in K-12 education systems that leave them less prepared for postsecondary success, such as differences in school funding or curriculum design that does not serve Black students well (Preston, 2017), as well as campus racial climates (Karkouti, 2016).

Despite this, there do exist some relevant contributions to the literature related to adult Black learners. Brock & Slater (2021) discuss the benefits of "culturally sustaining offerings" for Black and minority students, in which culturally targeted services from institutions can assist Black students by using familiar and relevant methods to increase engagement and feelings of belongings. A multi-year effort funded by the Lumina Foundation (*HBCU Adult Learner Initiative External Report*, 2024) aimed at understanding Black adult learners at HBCUs found many overlaps with the existing literature on general adult learners, such as the importance of flexibility and integration of life experiences, with a particular emphasis on the unique experiences of Black adults. Finally, Kuo & Belland (2016), suggest that strong engagement and relationship with the instructor is particularly important for Black and other minority learners in online settings.

Conclusion and Further Questions

Adult learners at least 25 years of age remain a steady presence in the U.S. postsecondary education system, having comprised at least 1/3 of the overall student population for the last two decades. It is well-documented that persistence and retention remain a significant challenge for this group across all institutions and settings, with significant differences for students who enter college even with just a gap of a couple years after high school. In order to effectively address these persistence struggles, institutions must account for several factors, including: the competing time and priority demands of work and family; institutional policies and procedures that may be less friendly and amenable to adult learners; and the reality that after separation from the formal education system, many adult learners face increased anxiety and stress that can affect their performance. Promising practices involve thoughtful engagement with these adult learners, flexible institutional policies, and recognition of the relevancy of their life experiences.

In this field, gaps and further questions remain. Parenting and work status play major roles in the success of adult learners, but accurate data collection around these characteristics remains fractured and inconsistent. As technological capabilities increase, additional inquiry and study is needed to investigate the impact of online learning, particularly given the difference in technological capacity among adults over the years. In addition, literature on Black adult learners remains relatively sparse, particularly when looking at those in online settings—additional literature will help further understand specific challenges and solutions for this population.

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