Research Article

Avoid Falling from the Enrollment Cliff: Finding Treasures from Rural Areas May Be a Solution for Some Universities

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JEL Codes: A21, A22, I23, I25, R00
Keywords: enrollment cliff, NCAA, region, rural, student recruitment, urban

Abstract
Recent declines in college-age populations have raised "enrollment cliff" concerns among universities. This article compares age-group distributions across levels of urbanicity (metropolitan, micropolitan, and rural towns), regions, and NCAA conferences. It shows, across regions and most NCAA conferences (Mountain West, Big Ten, Big 12, and Pac-12), rural town populations are facing more moderate decrease than metropolitan and micropolitan areas. Given these trends, although rural recruitment is often more costly on a per student basis, it could be a worthwhile investment for universities to mitigate enrollment challenges, especially for institutions that have already saturated their urban recruitment pools. Targeted scholarships and financial aid can help attract rural students, and early successes may generate momentum by encouraging additional students from rural communities to apply. For institutions with more limited financial resources, identifying external scholarship opportunities and building one-on-one connections with prospective students, particularly to address concerns about transitioning to large campuses and urban environments, can also enhance recruitment outcomes. Investing in rural recruitment is especially relevant for institutions with land-grant missions, and given rural students' backgrounds and interests, it may be particularly beneficial for agribusiness, agricultural economics, and other departments within colleges of agriculture.

1 Declines in US College Enrollment and Fertility Rate

Recent declines in the college-age population at both the regional and the national level have raised growing concerns among universities, as the anticipated "enrollment cliff" poses significant challenges for academic programs. A study by the Western Interstate Commission for Higher Education (WICHE) projects that the number of US high school graduates will have peaked at 3.93 million in 2025 before declining over the next 2 decades, reaching 3.52 million by 2037 (Bransberger and Michelau 2017; Nayga et al. 2024). The decline in fertility rates remains the key reason for this upcoming decline. The fertility rate in the United States has declined 17.3% from its 21st-century peak of 69.3 births (per 1,000 women between the ages of 15–44) in 2007 to a historical low of 54.5 births in 2023 (Figure 1).

Due to limited data availability on fertility rates by urbanization level in public sources, we present the "total" fertility rate by urbanization levels to explore fertility trends in urban and rural areas. It is important to note that the fertility rate shown in Figure 1 is measured as the number of births per 1,000 women aged 15–44 in a given year, while the total fertility rate in Figure 2 is the average number of births a woman would have over her lifetime, assuming the age-specific fertility rates of a particular year. Although the two rates are calculated differently, both provide insights into fertility trends and show very similar decline trends over time. When examining the total fertility rate by urbanization level, we see a downward trend in both urban (large, medium, or small metro counties) and rural areas (rural counties) over time. Specifically, from 2007 to 2017, rural counties experienced "only" an 11.6% decline, from

2,207 to 1,950 births, while large metro counties experienced an 18.3% decline, from 2,096 to 1,712 births, and small or medium metro counties declined 15.7%, from 2,110 to 1,778 births. Additionally, the total fertility rate in rural counties remains consistently higher than in metro counties, and the gap between metro and rural areas continues to widen. Notably, this gap more than doubled, from 111 in 2007 to 238 in 2017.

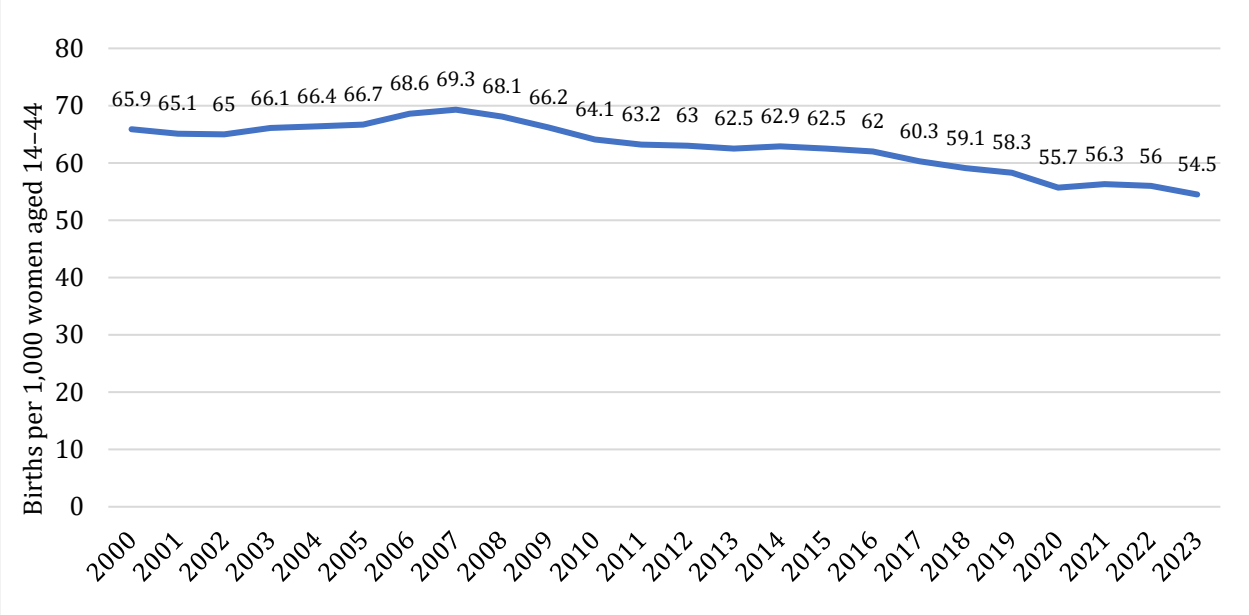

Figure 1. US fertility rate, 2000–2023

Data Source: Hamilton et al. (2024).

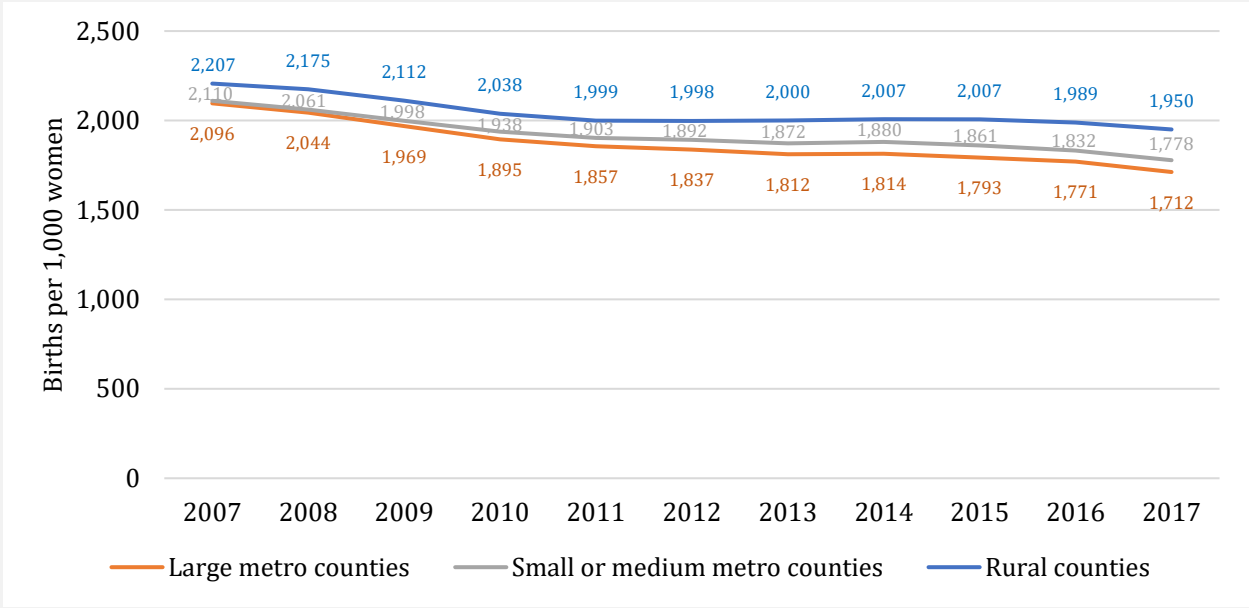

Figure 2. Total fertility rate by urbanicity, 2007–2017

Data Source: Ely and Hamilton (2018).

These pronounced differences in fertility trends between rural and metro counties, assuming relatively stable migration patterns and college attendance rates, suggest that future changes in the size of rural and urban student populations will not occur uniformly. As a result, the enrollment cliff is likely to affect universities differently depending on the urban composition of their surrounding states and recruiting bases. In this article, we compare age-group distributions across levels of urbanity to assess how the impending enrollment decline may differentially impact universities across regions and NCAA conferences. The recruitment strategies and differences in urban and rural student recruitment will also be discussed.

2 Rural–Urban and Regional Disparities in Enrollment Trends

Similar to the total fertility rate, the pace and degree of student pool shrinkage vary between rural and urban areas. Population by age group may not be a perfect measure for representing the number of college enrollments in future years, since factors such as migration patterns and college attendance rates also need to be considered. However, the diverging trends in population by age group can serve as a useful proxy for understanding disparities in the sizes of prospective college-age student populations across different regions and rural–urban areas. Please note that the definition of rural/urban can differ slightly across different data sources (e.g., CDC-NCHS, USDA-ERS). In the population by age group data reported and associated discussion that follows, we define urbanicity following the 2023 Rural–Urban Continuum Codes (RUCC) documentation (USDA-ERS, 2025). Specifically, we link county-level population data by 5-year age groups from the US Census with RUCC and aggregate counties into three categories: Counties with RUCC codes 1–3 are classified as "metropolitan," those with codes 4–7 are classified as "micropolitan," and those with codes 8–9 are classified as "rural towns."

Nationwide, when comparing age groups, the population of children under 5 is 14.5% lower than the population of those aged 20–24 (representing recent college graduates and current students). This decline is consistent across metropolitan regions (RUCC 1–3) at 14.8% and micropolitan regions (RUCC 4–7) at 16.2%. However, in rural towns (RUCC 8 and 9), the population of children under 5 is actually 1% higher than the population aged 20–24. These may indicate that US universities' overall and metro- and micropolitan student pools might have peaked, but not their rural town student pools. Some may argue that young adults migrating out for job opportunities can be one of the reasons that the rural population of young adults is lower than that of younger age groups. However, since 2020, migration to small towns and rural counties in the United States has actually increased, with most of the growth driven by young and working-age adults (Cromartie 2024; Lombard 2024).

Currently, universities aiming to maintain or stimulate enrollment levels often focus on increasing the overall percentage of high school students who pursue higher education by hosting recruitment events such as college fairs, campus preview days, college information sessions, and prospective student days. However, universities should also consider dedicating extra efforts and resources to actively recruiting students from rural areas for two key reasons. First, college enrollment rates among rural populations are much lower than those of urban populations. Only 29% of rural individuals aged 18–24 are enrolled in higher education, compared to 48% of their urban counterparts (Mowreader 2024). This relatively low enrollment rate suggests that a larger portion of rural students may still be uncertain about their next steps after high school. Second, with the rural town population aged 15–19 and 10–14 being 17.1% and 19.2% larger, respectively, than the rural town population aged 20–24 (Figure 3), the college-age population in rural towns is expected to continue increasing over the next 5–8 years. Recruiting efforts, such as visiting high schools in rural areas, could be an effective strategy for attracting students from these communities. Working more closely with community colleges to recruit transfer students should also be considered because the cost of a 4-year degree can be financially prohibitive for students facing economic hardship. Many of them opt to attend community college before transferring to a university.

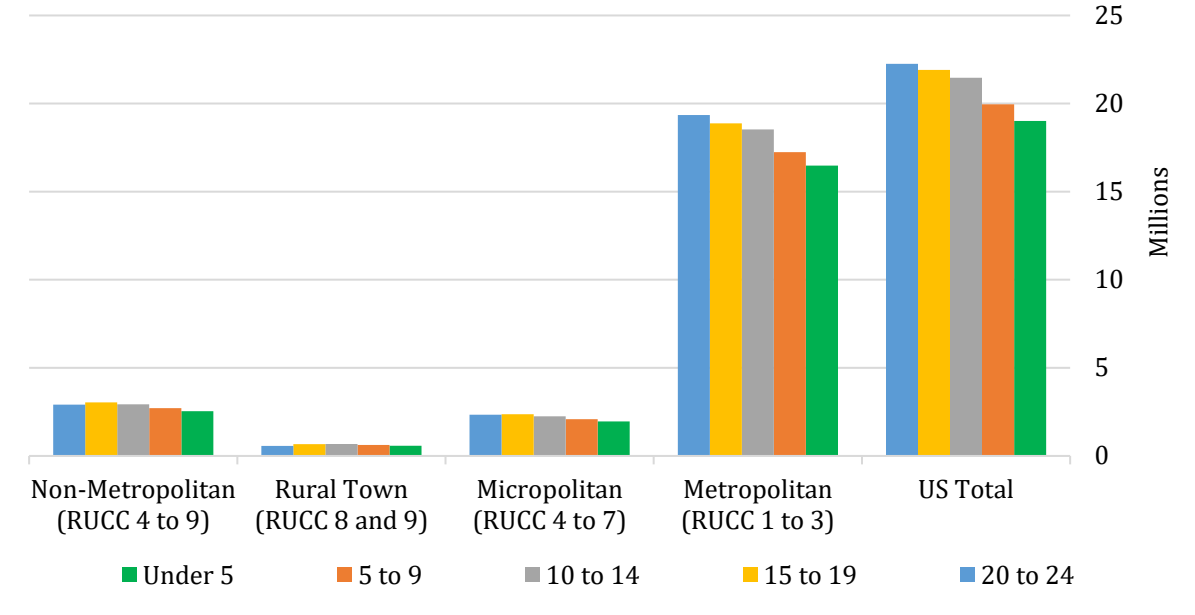

Figure 3. Population by age group and urbanicity

Data Source: US Census Bureau (2024).

The pace and degree of student pool shrinkage not only vary by urbanicity but also by region. Furthermore, the rural and urban areas in the same region can experience different paces and degrees of shrinkage. Across all four US regions: Midwest, Northeast, South, and West (states in each region are defined in Appendix Figure A1), youth populations are all declining. As shown in Figure 4(a), the total population of children under 5 is lower than that of young adults aged 20–24 by 17.6% (Northeast), 15.5% (West), 15.0% (Midwest), and 12.3% (South). Similar trends are observed in metropolitan and micropolitan populations. The metropolitan (Figure 4(b)) population of children under 5 is lower than that of young adults aged 20–24 by 17.1% (Northeast), 16.1% (Midwest), 15.9% (West), and 12.3% (South), and the micropolitan (Figure 4(c)) population of children under 5 is lower than that of young adults aged 20–24 by 24.5% (Northeast), 16.2% (Midwest), 13.5% (West), and 14.9% (South). This finding is consistent with a WICHE research report indicating that states in the Northeast, Midwest, and West will see more significant decreases in high school graduates than those in the South (Bransberger and Michelau 2017). In particular, the WICHE report indicated that compared to 2019 levels, the number of graduates by 2037 is expected to drop by approximately 93,000 in the Midwest, 73,000 in the Northeast, and 77,000 in the West, while the South is not projected to experience an overall decline from its 2019 level. Population differences between age groups vary and tell a different story when examining only rural towns across regions, as shown in Figure 4(d). Despite the overall and urban population declining trends, the rural town populations of children under 5 are in fact greater than that of young adults aged 20–24 by 11.4% (Midwest) and 9.4% (West). In contrast, the rural town population of children under 5 is lower than the rural town population aged 20–24 by 13.7% (Northeast) and 5.8% (South).

This suggests that universities in the Midwest and West regions could capitalize by focusing more student recruitment efforts in rural towns. Metropolitan and micropolitan areas in these regions are expected to experience steeper declines in the student recruitment pool, while rural areas may see an increase in the coming years. In contrast, universities in the South could consider distributing their recruitment efforts and resources more evenly between rural and urban areas, as both are projected to

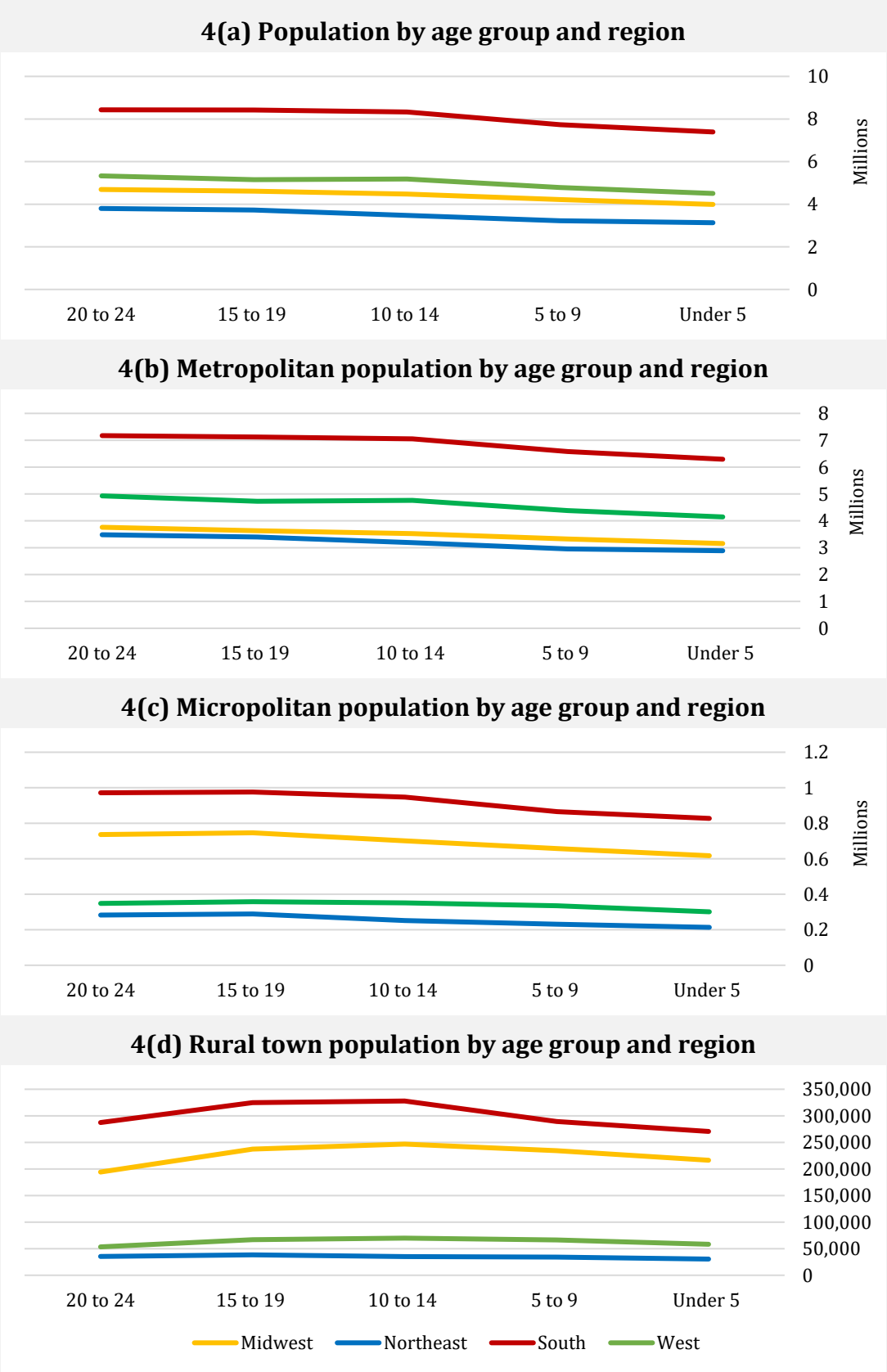

Figure 4. Populations by age group and region

Data Source: US Census Bureau (2024).

experience moderate declines. Meanwhile, universities in the Northeast face meaningful drops in in-region student pools across all urbanicities. Given this challenge, they may need to expand their recruitment strategies beyond in-state and in-region students by attracting applicants from other regions or even internationally.

3 Disparities in Enrollment Trends Across NCAA Conferences

Since we are analyzing prospective student pools, examining this issue through the lens of NCAA academic conferences may be a useful comparison. Understanding population distributions by age groups across conferences can help universities and conferences refine their recruitment strategies and focus more effectively. Specifically, we focus on six major NCAA conferences that primarily consist of member institutions from major land-grant state universities or universities with agricultural/applied economics or agribusiness programs: the ACC, Big 12, Big Ten, SEC, Mountain West, and Pac-12. We include the most recent members of each conference, except for the Pac-12, where we use its full membership list prior to the 2024 realignment. Table 1 reports a complete list of states where the conference member universities are located. A few states are listed under multiple conferences because they have different universities affiliated with different conferences. Additionally, following the 2024 Pac-12 realignment, each former Pac-12 member state now has at least one university joining another major conference. For instance, California is listed under the ACC, Big Ten, Pac-12, and Mountain West. In contrast, certain states, including Alaska, Connecticut, Delaware, Maine, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, and Vermont, do not have any universities in these six major NCAA conferences.

Table 1. List of states represented by member universities in Six NCAA conferences

ACC	Big Ten	Big 12	SEC	Mountain West	Pac-12 (2023)
California	California	Arizona	Alabama	California	Arizona
Florida	Illinois	Colorado	Arkansas	Colorado	California
Georgia	Indiana	Florida	Florida	Hawaii	Colorado
Indiana	Iowa	Iowa	Georgia	Idaho	Oregon
Kentucky	Maryland	Kansas	Kentucky	Nevada	Utah
Massachusetts	Michigan	Ohio	Louisiana	New Mexico	Washington
New York	Minnesota	Oklahoma	Mississippi	Utah	
North Carolina	Nebraska	Texas	Missouri	Wyoming	
Pennsylvania	New Jersey	Utah	Oklahoma		
South Carolina	Ohio	West Virginia	South Carolina		
Texas	Oregon		Tennessee		
Virginia	Pennsylvania		Texas		
	Washington				
	Wisconsin				

Data Source: Authors' compilation based on 2024–2025 NCAA Membership Directory (NCAA 2025)

The pace and degree of prospective student pool shrinkage vary across NCAA conferences and also by urbanicity. Compared to the total population aged 20–24, the population of under 5 is lower by 16.0% in the Pac-12 (2023 members), 15.2% in the Mountain West, 14.6% in the Big Ten, 14.5% in the ACC, 13.0% in the Big 12, and 11.9% in the SEC (Figure5(a)). Metro and micropolitan population trends within each conference mirror these overall patterns, with similar population gaps observed between the two age groups (Figures 5(b) and (c)). In contrast, rural town population trends tell a different story, as shown in Figure 5(d). In more than half of the conferences, the rural population of children under 5 actually exceeds that of adults aged 20–24. Notably, the Mountain West conference's rural town population of children under 5 is 9.1% larger than its rural town population aged 20–24. Positive differences between the two age groups are also observed in the Big Ten (6.1%), the Big 12 (5.5%), and the Pac-12 (0.8%). The ACC and SEC are the only two conferences where the rural town population of children under 5 is lower than that of adults aged 20 to 24, with differences of −5.8% and −3.6%, respectively. Nonetheless, the declines in rural populations are still much more moderate than the declines in urban and overall populations for these two conferences.

Furthermore, unlike the clear downward trends, starting with the 20–24 age group, observed in total and urban populations across all conferences, rural town populations peak in the 10–14 and 15–19 age groups. This may suggest that universities across conferences should devote additional effort to recruiting students from rural areas, particularly in the Big Ten, Big 12, and Mountain West conferences. Compared to other conferences, these conferences are expected to experience steeper declines in metropolitan, micropolitan, and overall populations while seeing the largest increases in youth populations in rural towns. In contrast, the SEC faces moderate declines in metro and micropolitan youth populations but the steepest decline in rural youth populations.

4 Discussion and Concluding Remarks

With declining fertility rates and a shrinking youth population across the United States, an enrollment cliff appears inevitable for universities in the near future. However, when examining age group populations separately for metropolitan, micropolitan, and rural town areas, the decline in rural towns is notably more moderate than in metro and micropolitan areas. Rural town population trends vary by region, diverging from the overall decline seen in metropolitan, micropolitan, and total populations. While the Midwest and West show signs of a growing rural student pool, the Northeast faces a sharper decline, and the South experiences the most moderate shift. Given these trends, universities in the Midwest and the West should consider putting additional recruitment efforts in rural towns. Institutions in the Northeast, facing widespread declines in both urban and rural youth populations likely need to expand their recruitment strategies. Additionally, population trends across NCAA conferences suggest that universities—particularly in the Big Ten, Big 12, and Mountain West—should place additional emphasis on student recruitment in rural towns due to expected declines in urban and overall populations. Meanwhile, SEC institutions face relatively moderate declines in youth populations across metropolitan, micropolitan, and rural towns, indicating the need for efforts on both urban and rural recruitment. Although a higher proportion of rural students (or lower college attendance rates) does not automatically indicate a need for increased rural recruitment, there are likely strong reasons to do so. Many universities face saturated urban applicant pools, underrepresentation of rural populations, and the need to maintain long-term enrollment sustainability.

Although we highlight the importance of rural recruitment across most regions and NCAA conferences, college recruiters tend to devote less attention to rural students because recruiting in rural areas is often more costly per student than outreach to large urban high schools (Koricich 2019). Longer travel distances, increased travel time, and higher transportation costs are primary factors driving this difference. Most importantly, recruiters typically encounter far fewer prospective students per school

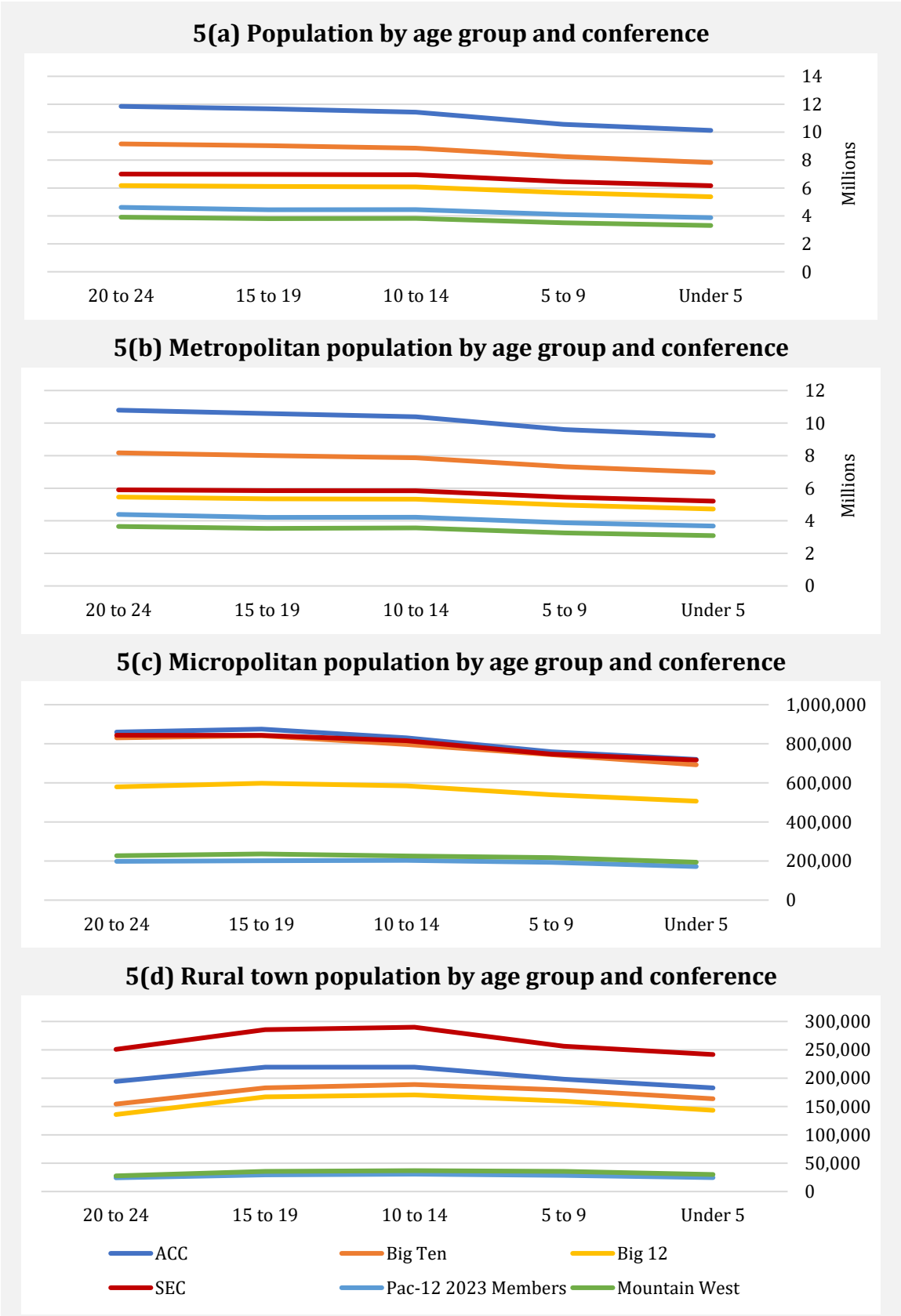

Figure 5. Populations by age group and NCAA conference

Data Source: US Census Bureau (2024).

visit or recruiting trip in rural areas than in urban settings, further reducing the efficiency and cost-effectiveness of rural recruitment efforts (Harper 2019). At the same time, rural students often face practical challenges in attending or even just visiting college campuses (Gettinger 2019). For many rural students, apprehension about leaving home, family, and a familiar way of life, combined with concerns about urban living and large campus environments, can present psychological and social barriers to college enrollment (Gettinger 2019; Harper 2019). However, in recent years, the postsecondary needs of rural residents have received increasing attention (Koricich 2019). Given the noticeable gap between rural and nonrural students regarding college attendance (Koricich et al. 2018), expanding outreach to rural students may represent a valuable strategy for many institutions in responding to the enrollment cliff, particularly for those that have already saturated their urban student pools.

Universities often rely on online outreach to recruit rural students when in-person visits are not feasible (Seltzer 2018). While this approach can reduce costs, it is frequently ineffective. Effective strategies for recruiting and connecting with rural students include providing targeted financial support to reduce barriers, building personal connections by engaging directly with students, families, and school staff, and collaborating with local schools to identify and encourage promising students (Seltzer 2018; Turley-Ames 2018; Harper 2019). Programs such as on-campus dual enrollment and early college experiences help students gain confidence, earn college credit, and develop realistic expectations of college life, while guidance on how their interests can translate into a wider range of academic and career opportunities broadens their horizons. Using college-going peers to share experiences and reassure families that graduates can return home through remote work, commuting, or local jobs further supports rural students' transition to higher education. Scholarships and other forms of financial aid targeted specifically at rural students can help attract more applicants and these successful cases can potentially attract more future students from rural towns. However, budget constraints may make this challenging for many universities. To address this, research on available scholarships and financial aid programs for rural, first-generation, or low-income students should be compiled and communicated effectively. In short, successful rural recruitment requires sustained, relationship-based engagement, with universities committing to long-term partnerships that build trust and positively shift perceptions of higher education in rural communities.

Prioritizing rural recruitment can be an effective strategy for universities, especially land-grant institutions that sit in states with greater percentages of rural population. While "rural" does not necessarily mean "agricultural," most agricultural activity occurs in rural areas. Rural students are therefore more likely than urban students to have backgrounds or interests related to agriculture. Consequently, we believe that, in general, rural students may have a higher likelihood of choosing majors such as agribusiness, agricultural economics, agricultural science, or other programs within the college of agriculture. This presents a valuable opportunity for universities, especially their agribusiness and agricultural economics departments, to invest more resources and efforts into recruiting students from rural counties. These efforts would align with the recent USDA vision of restoring rural prosperity (USDA 2025). Such a strategy could be one tool to help institutions and agribusiness and agricultural economics departments mitigate the impact of the impending enrollment cliff.

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Acknowledgments: The authors thank the editor, Jason Bergtold, and the anonymous reviewers for their insightful suggestions, which helped to significantly improve the article. The authors acknowledge the Department of Agricultural Economics at Mississippi State University for covering publication costs of this article and thank former graduate student Seth Green for his assistance with data collection and cleaning.

Appendix

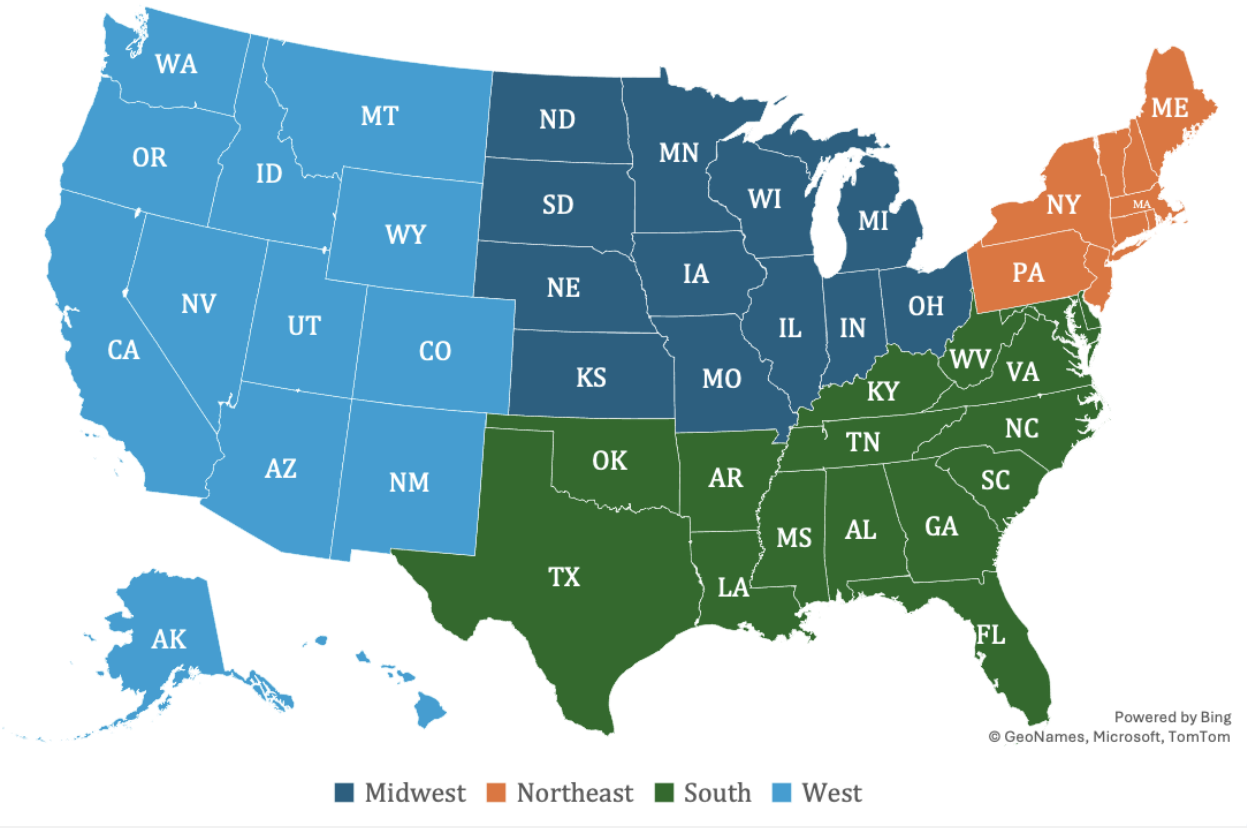

Figure A1. States in each US region

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DOI: https://doi.org/10.71162/aeee.888181