PA Workforce Development Association

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Youth Demographic Study

Lightcast

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About

Lightcast is the world's leading authority on job skills, workforce talent, and labor market dynamics, providing expertise that empowers businesses, education providers, and governments to find the skills and talent they need and enabling workers to unlock new career opportunities. Headquartered in Moscow, Idaho, Lightcast is active in more than 30 countries and has offices in the United Kingdom, Italy, New Zealand, and India. The company is backed by global private equity leader KKR.

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The Pennsylvania Workforce Development Association (PWDA) serves as the voice of the Pennsylvania workforce development system and a clearinghouse for workforce development information statewide. Known for Pennsylvania's premier annual workforce development gathering every spring, we provide development and capacity building opportunities to workforce development professionals, local workforce development boards (WDBs), and other stakeholders while continuing proactive advocacy efforts on behalf of Pennsylvania's workforce development system. Learn more by visiting https://www.pawork.org.

Introduction

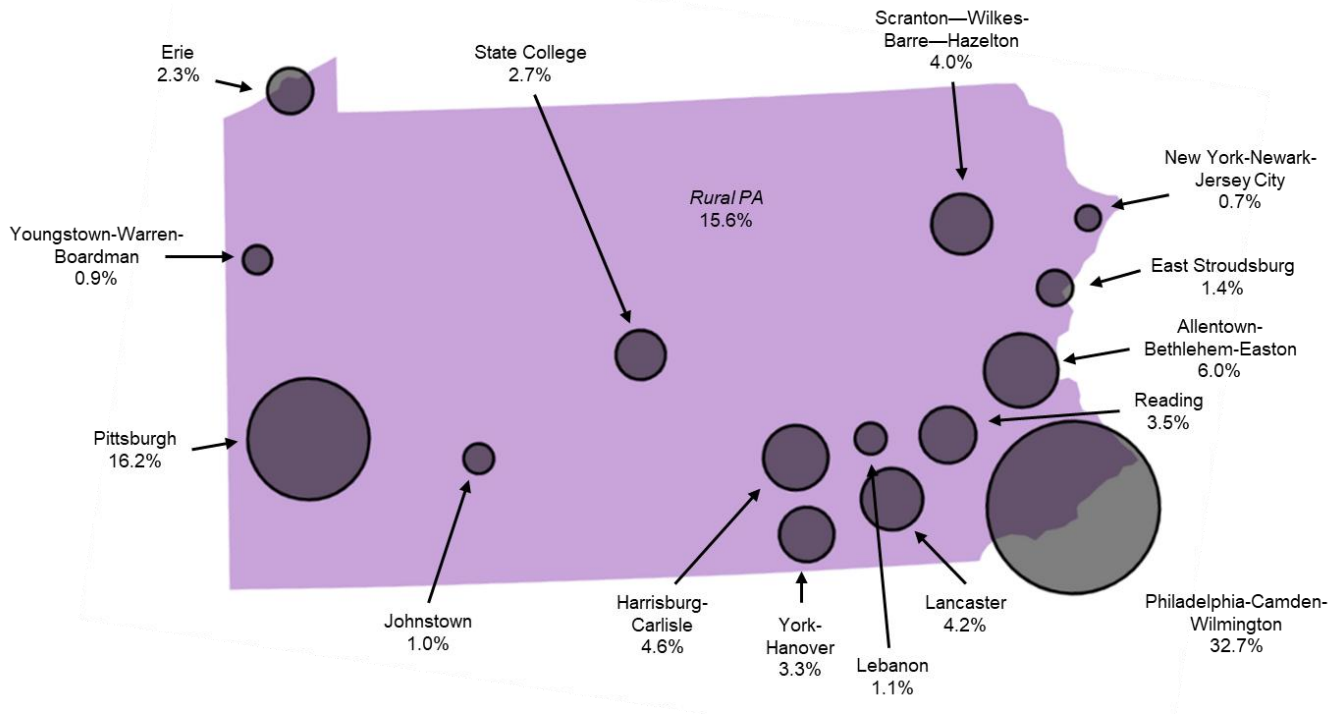
The Pennsylvania Workforce Development Association (PWDA) partnered with Lightcast to undertake a Youth Demographic Study, aiming to shed light on the employment trends, labor force participation, and migration patterns of the youth population in the state. To conduct this analysis, Lightcast relied on data from the Census Bureau's American Community Survey (ACS) 5-Year (2023) and the Current Population Survey's Annual Social and Economic Supplements (ASEC) from 1990 to 2024. While both sources provide valuable insights, it is important to note that some of the data measurements may vary between them. The study specifically focused on individuals aged 16 to 24, which constitutes the defined youth demographic.

Over the years, Pennsylvania's youth population has largely remained stable or experienced slight growth. However, a concerning trend has emerged: while the youth population has stayed relatively the same, the number of individuals in the retirement age group has more than doubled since 1990. This shift has led to an inversion of the ratio between youth and retirement-age individuals.

As a result, despite Pennsylvania's overall population growing, the youth segment now represents a shrinking portion of the total population. This poses a significant challenge for employers, as the stagnant growth of the youth demographic makes it increasingly difficult to build a strong talent pipeline. With fewer young people entering the workforce, employers may struggle to meet their staffing needs and drive growth.

As illustrated in Figure 1, nearly half of Pennsylvania's youth population resides within the Philadelphia-Camden-Wilmington and Pittsburgh Metropolitan Statistical Areas (MSAs), accounting for 48.9% of the total youth demographic. In contrast, only 15.6% of the youth population is in the rural, non-MSA counties across the state.

Figure 1 - Distribution of PA Youth Population, 2023

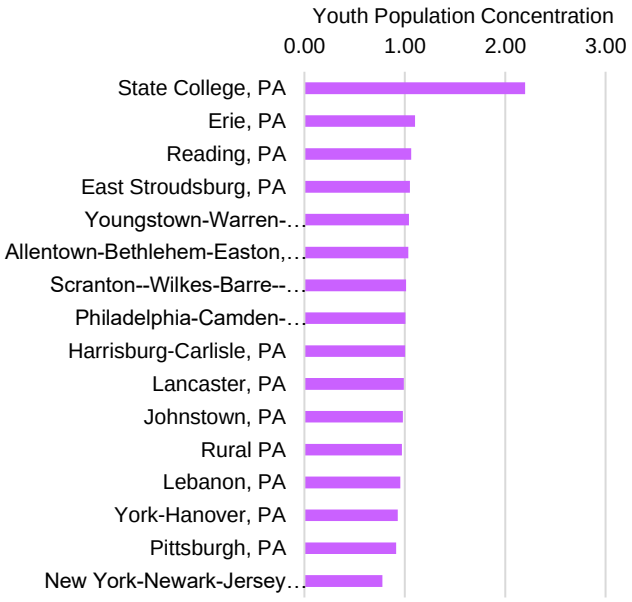


Source: ACS 5-Year Survey 2023, Lightcast calculations

Lightcast also examined the concentration of the youth population in relation to the overall state population (Figure 2). For example, Erie MSA makes up 2.1% of Pennsylvania's total population but contains 2.3% of the state's youth population, indicating that Erie has a higher concentration of youth relative to the state. In contrast, the State College MSA shows an even more pronounced concentration, with its youth population more than twice as large relative to its share of the state's population, largely due to the presence of Pennsylvania State University.

Interestingly, Pittsburgh is underrepresented when it comes to the youth population. Despite being a major urban center, the city's proportion of youth is smaller than expected based on its total population, suggesting that young people may be migrating elsewhere for education or employment opportunities.

Figure 2 - PA Youth Population Concentration, 2023



Source: ACS 5-Year Survey 2023, Lightcast calculations

The youth demographic, given its broad age range, represents a diverse array of educational backgrounds. Among the 16-24-year-olds in Pennsylvania, 61.6% are currently enrolled in school, while the remaining 38.4% are not actively pursuing education.

For those who are not in school, nearly half have completed high school, while around 20% have some college experience or an associate's degree. Another 16.3% of this group have earned a bachelor's degree. On the other hand, among the youth still in school, 52.2% are pursuing an undergraduate degree, 4.2% are working toward a graduate degree or higher, and 43.5% are still attending high school. This breakdown illustrates the varied educational paths and aspirations within the youth population.

Table 1 – PA Youth Education Attainment, 2023

Education Level	Share of Youth
High School	49.7%
Some College / Associate Degree	19.8%
Bachelor's Degree	16.3%
Less Than High School	13.2%
Master's Degree	1.0%
PhD or Professional Degree	0.1%

Source: ACS 5-Year Survey 2023

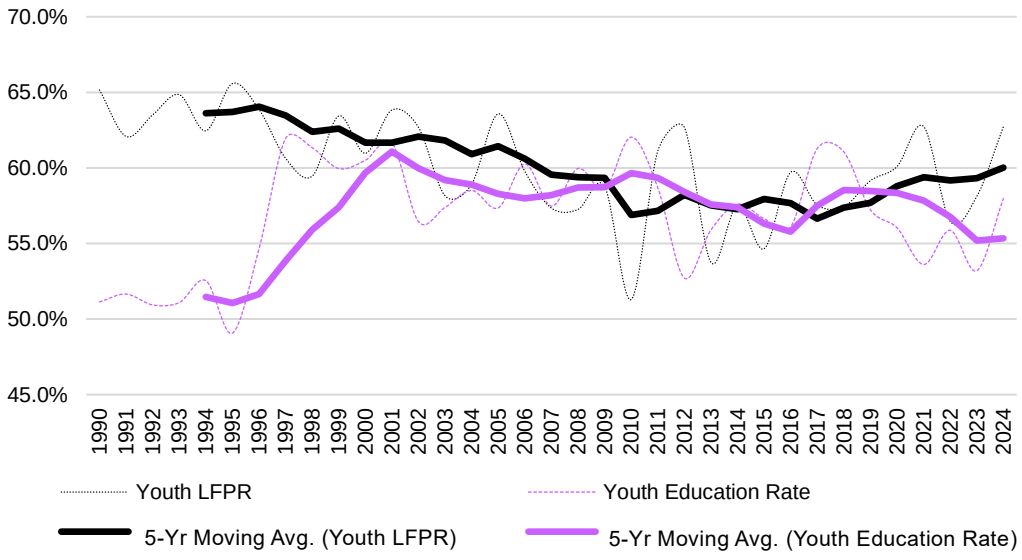
Employment & Labor Force Participation

As Pennsylvania faces the demographic challenges of an aging population, the participation of youth in the labor force has become more critical than ever. However, the state's youth labor force participation rate (LFPR), which includes those employed or actively seeking employment, has steadily declined. As Figure 4 demonstrates, the youth LFPR had been on a downward trajectory for nearly three decades.

One possible explanation for this decline is the sharp rise in youth education rates starting in the mid-1990s. As more young people pursued education, the youth labor force participation naturally decreased. This peaked around 2001, after which both education rates and youth LFPR began to decline slowly. Over the next two decades, fewer young people were employed or seeking employment while the percentage engaged in education also fell. While youth LFPR was in decline prior to the recession, it did plummet further following the crisis. Furthermore, when recessions occur, it is expected that education rates increase as youth choose to delay entering a poor job market while simultaneously attempting to increase their employability through further education – a trend that we briefly see in Pennsylvania when education rate peaked at 62% in 2010.

However, there are signs that this trend may be reversing. While education rates briefly spiked before returning to lower levels, the youth LFPR has been steadily increasing in recent years. This indicates that fewer young people are disengaging from both education and the labor market, suggesting a potential shift toward more youth participation in the workforce.

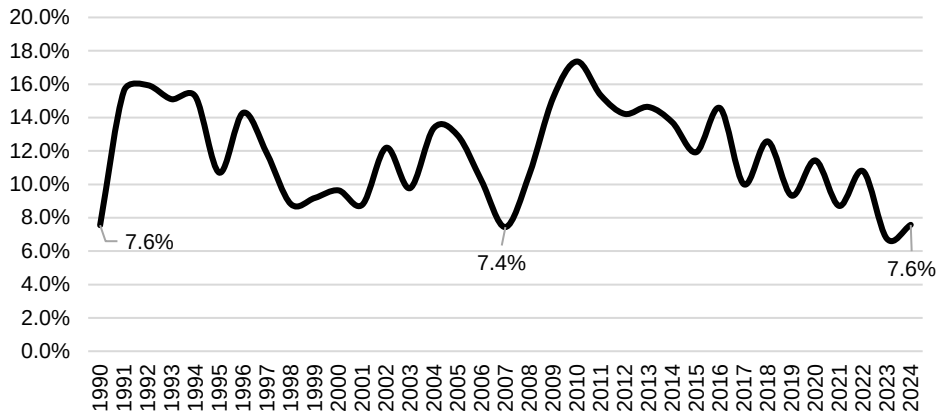
Figure 3 – PA Youth LFPR vs Youth Education Rate Trends, 1990-2024



Source: ASEC 1990-2024, Lightcast calculations

More positive data suggests that Pennsylvania's youth are finding it easier to secure employment compared to previous years. While youth unemployment surged during the financial crisis of 2008, the rate has since dropped significantly. In 2024, youth unemployment reached its lowest level since the 1990 and 2007 lows, standing at just 7.6%. This marks a significant improvement, reflecting more favorable conditions for young job seekers.

Figure 4 - PA Youth Unemployment Rate, 1990-2024



Source: ASEC 1990-2024, Lightcast

Youth Migration Within Pennsylvania

Lightcast analyzed the migration patterns of youth within Pennsylvania to determine if certain regions are more successful at attracting talent than others. A significant portion of youth migration occurs from one urban area to another, with 78.5% of moves falling into this category. In fact, more than 70% of moves happen within the same Metropolitan Statistical Area (MSA). Interestingly, rural areas (non-MSA regions) in Pennsylvania seem to draw more youth from urban areas than the other way around. This trend is consistent among both employed youth and students.

Rural (non-MSA) areas in the state draw more youth from urban areas than the other way around – a trend consistent among both employed youth and students.

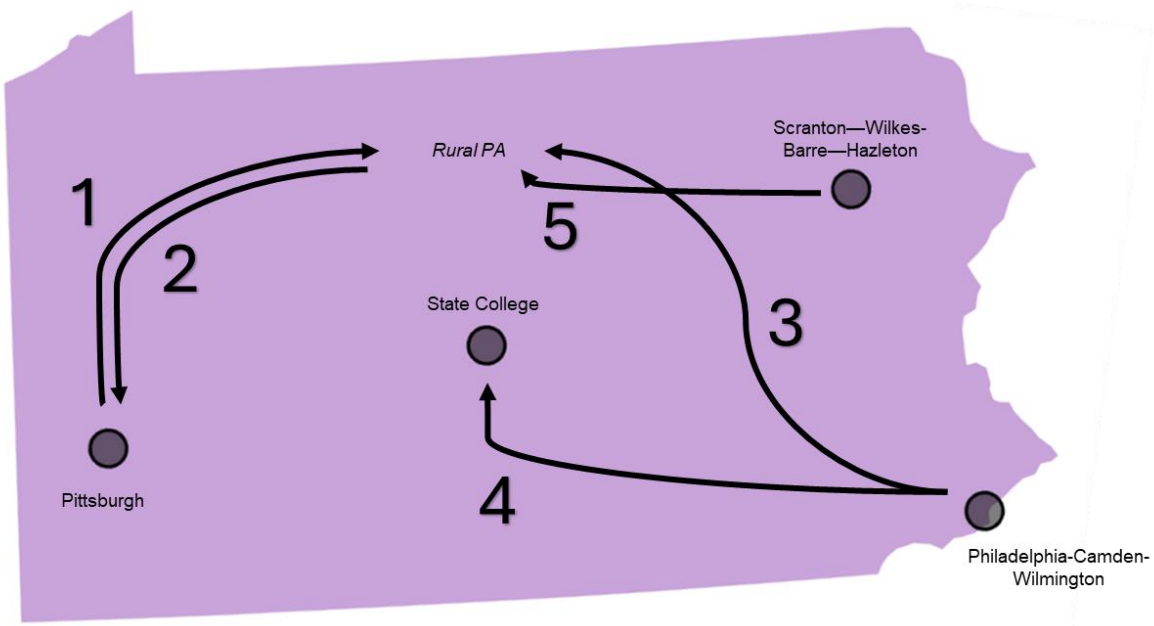
Table 2 - Internal Migration by Type, 2023

Migration Type	Youth Population	Share
Rural to Urban	11,283	4.7%
Rural to Rural	27,282	11.3%
Urban to Urban	189,459	78.5%
Urban to Rural	13,464	5.6%

Source: ACS 5-Year Survey 2023, Lightcast calculations

The figure below highlights the top migration patterns of youth within Pennsylvania when they change markets. For example, this includes moves where a youth relocates from Scranton to a rural area, rather than staying within the Scranton area. The largest migration flows occur between Pittsburgh and rural regions of the state, though these account for only about 8% of youth migration to new markets within Pennsylvania. Philadelphia follows as the next largest source of youth migration, with significant numbers moving to State College and rural parts of the state.

*Figure 5 - Top Migrations of Youth **within** PA, 2023*



Source: ACS 5-Year Survey 2023, Lightcast

*Table 3 - Top Migrations of Youth **within** PA, 2023*

	Start Location	End Location	Number of Youth
1	Pittsburgh, PA MSA	Rural PA	3,112
2	Rural PA	Pittsburgh, PA MSA	3,058
3	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	Rural PA	2,471
4	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA	State College, PA MSA	2,456
5	Scranton--Wilkes-Barre--Hazleton, PA MSA	Rural PA	2,394
	Other Locations	Other Locations	52,242
	Total		65,733

Source: ACS 5-Year Survey 2023, Lightcast

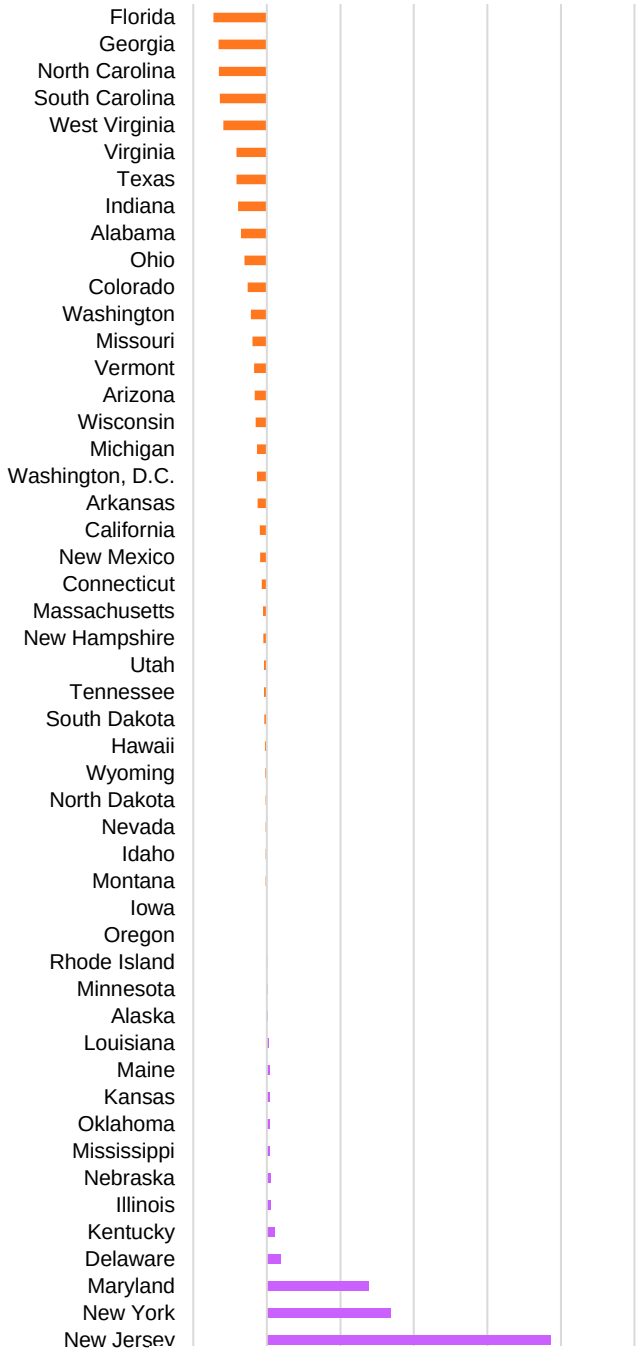
Out-Migration

Understanding youth attrition, or out-migration, is crucial for identifying competitive markets that may be contributing to brain drain. In an environment where finding youth labor is increasingly challenging, retaining talent becomes an asset. In Pennsylvania, the retention of youth is strong at the high school and associate's degree levels, with over 95% staying in the state. However, this retention rate drops at the bachelor's degree level, with only 86.5% of youth remaining in-state. The state's overall attrition rate stands at 4.9%.

Figure 6 provides a clear picture of Pennsylvania's net youth migration compared with other states. While Pennsylvania attracts a significant number of youth from neighboring states like New York, New Jersey, and Maryland, it loses more youth than it gains from most other states. The largest net losses come from states like Florida, Georgia, the Carolinas, and West Virginia.

In the end, Pennsylvania's overall youth migration balances out, with the state gaining roughly as many youths as it loses to attrition.

Figure 6 - PA Net Migration by State, 2023

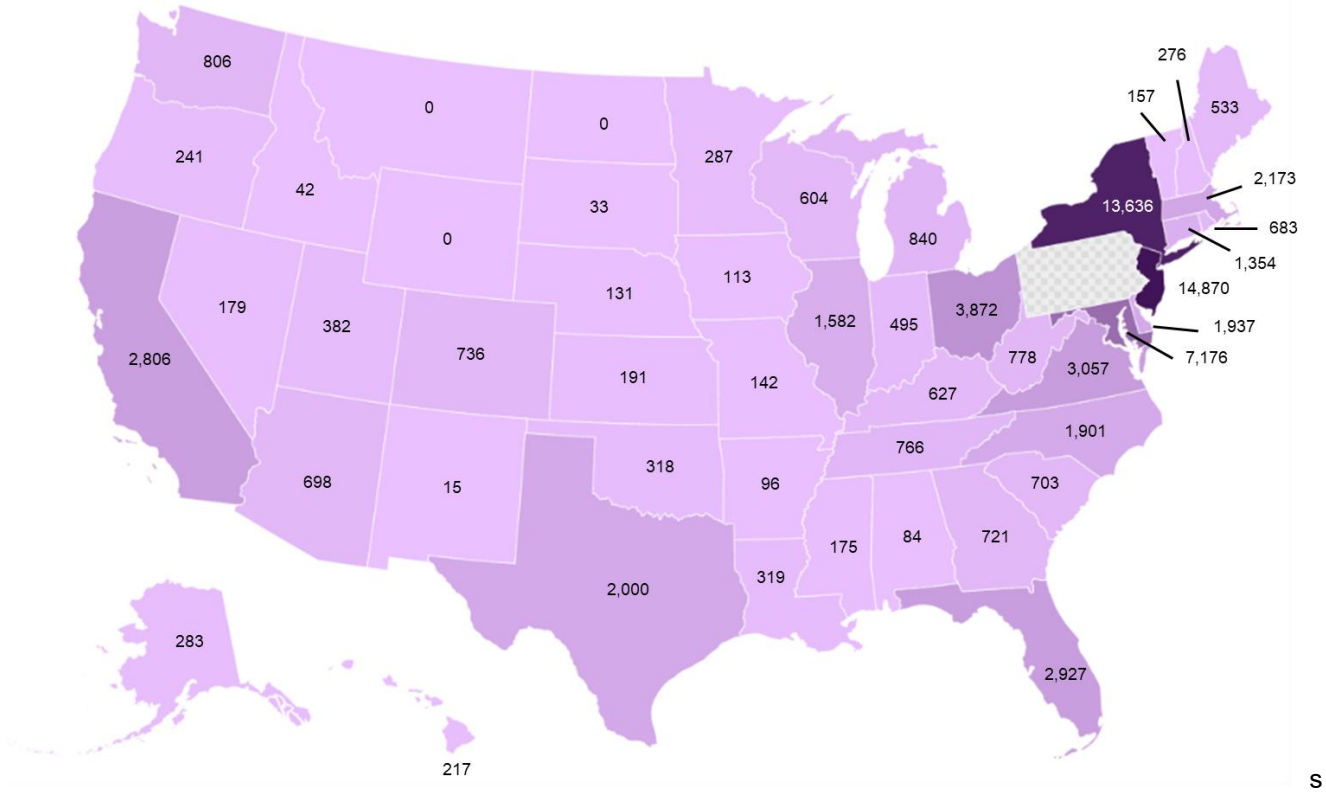


Source: ACS 5-Year Survey 2023, Lightcast calculations

In-Migration

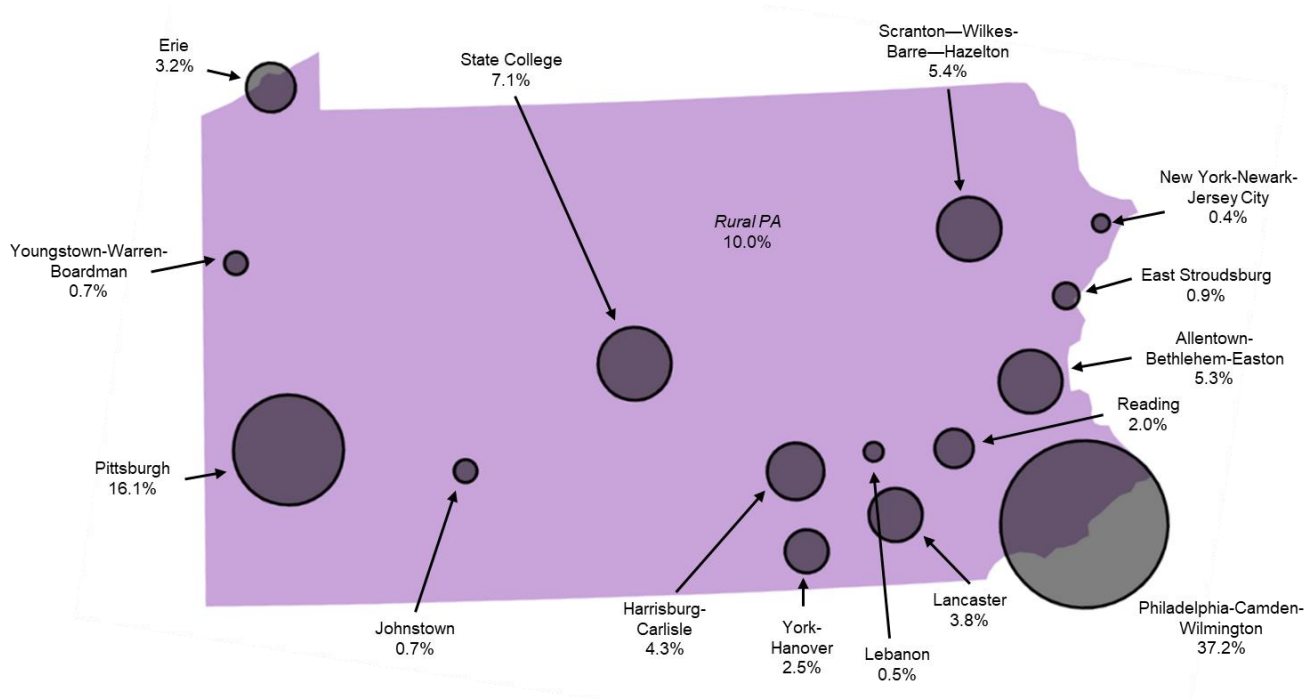
Pennsylvania's youth attraction rate stands at 5.8%. As noted earlier, the state primarily attracts youth from New Jersey, New York, and Maryland, followed by Ohio, Virginia, Florida, and California. At the MSA level, Pennsylvania draws the most youth from New York City, the non-Pennsylvania areas surrounding the Philadelphia MSA, as well as Baltimore, Washington D.C., and Boston. When youth migrate to Pennsylvania, just over half settle in the Philadelphia or Pittsburgh MSAs. Other popular destinations include State College, Scranton, and the Lehigh Valley.

Figure 7 - Youth In-Migration Numbers by Origin (State)



Source: ACS 5-Year Survey 2023, Lightcast

Figure 8 - Destination of In-Migration Youth



Source: ACS 5-Year Survey 2023, Lightcast

Conclusion

Pennsylvania does not exhibit a concerning brain drain or net loss of youth, as the data shows that the state gains as much talent as it loses through migration. The state is beginning to reverse a decades-long trend of declining youth labor force participation rates (LFPR) and falling education levels. While LFPR has yet to fully recover to pre-2005 averages, fewer young people are sitting on the sidelines compared to recent years. With employment opportunities available for this demographic, the key to further progress lies in actively connecting youth to these opportunities and engaging them in the workforce.

Key Takeaways:

Investing in youth is a workforce imperative: As Pennsylvania's population ages and the youth share declines, strategic investment in youth workforce development is essential to sustaining long-term economic vitality. Demographic trends clearly show that the future of the labor market depends on engaging and preparing today's young people.

Workforce development is economic development: The data in this report underscores the urgency of embedding youth workforce strategies into the state's broader economic and education planning. Strengthening connections between local employers, educators, and Local Workforce Development Boards will be key to building a resilient talent pipeline.

Youth migration patterns are balanced but regionally uneven: The state does not suffer from an overall brain drain, but migration is highly concentrated in urban areas. Nearly half of all youth live in just two MSAs—Philadelphia and Pittsburgh—while rural areas hold only 15.6% of the youth population. Regional strategies

supported by Local Workforce Development Boards will be critical to address localized challenges and leverage in-migration trends.

Local solutions require sustained & flexible support: Workforce development challenges and opportunities vary significantly by region. Local boards are well-positioned to respond, but doing so effectively will require flexible and sustained federal and state investment to tailor programs that meet youth where they are.

Contact

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