Pennsylvania Population Projections 2050: A First Look

Pennsylvania Population Projections 2050: A First Look

Population projections are an essential planning tool for any organization whose work is impacted by revolving demographic changes. Consistent with past research, the Center for Rural Pennsylvania, in partnership with the Pennsylvania State Data Center, is pleased to release projected population changes by county, through the year 2050. These data show continuing divergence of population in Pennsylvania's rural and urban counties, with urban areas projected to grow 4.1 percent, while rural areas face a 5.8 percent decline. These projections also suggest a significant aging of the Commonwealth's population, which will have further ramifications for a wide range of policy issues, including workforce needs and trends, housing, health care, education, transportation, and more.
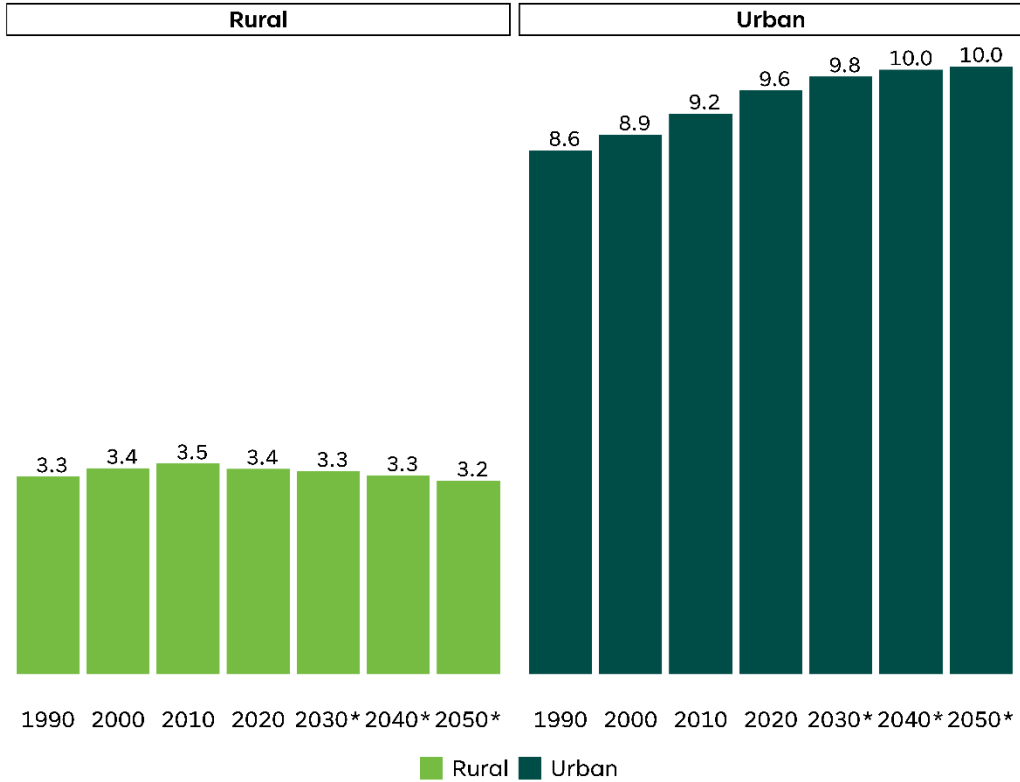
Key Findings

- Pennsylvania's rural counties population is projected to decline 5.8 percent over the next 30 years, with the state projected to grow 1.6 percent based on increases in urban population.
- Population growth will likely continue to concentrate in the southeast of the Commonwealth, with counties farther north and west witnessing more population decline.
- The aging of the Baby Boomer generation will have significant workforce ramifications over the next decade, especially in rural counties with high senior citizen populations.

Total Population

The population projections for the next 30 years suggest an increasing divergence in patterns among rural and urban counties. Overall, Pennsylvania's population is expected to increase in 2030 and 2040, with a slight decline by 2050. This leads to an estimated 30-year growth rate of 1.6 percent. As a point of comparison, Pennsylvania's overall population grew at a rate of 2.4 percent between 2010 and 2020. However, rural-urban comparisons show that nearly all projected growth between 2020 and 2050 is driven by the Commonwealth's urban areas. Figure 1 depicts the total population counts from 1990 to 2020, combined with projections up to 2050 for both rural and urban counties. From 1990 to 2010, all county populations were growing. However, rural counties overall experienced a decline from 2010 to 2020. Projected population totals suggest this trend will continue over the next 30 years, with population in rural counties declining 5.8 percent between 2020 and 2050. Urban counties are projected to continue growing, but at a slowing pace. Between 2020 and 2050, the total urban population is expected to grow 4.1 percent.

Figure 1: Projected Total Population (in Millions), Rural and Urban Counties, 1990 to 2050
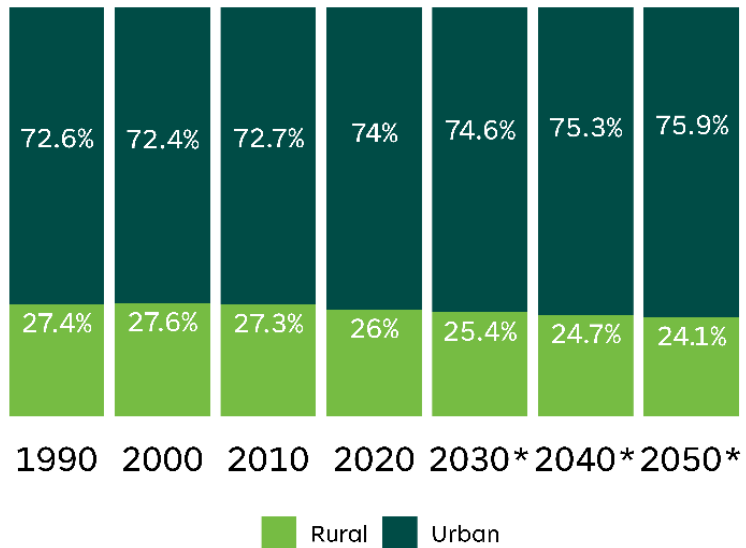
Rural	Urban

Rural (1990–2050*): 3.3, 3.4, 3.5, 3.4, 3.3, 3.3, 3.2

Urban (1990–2050*): 8.6, 8.9, 9.2, 9.6, 9.8, 10.0, 10.0

1990 2000 2010 2020 2030* 2040* 2050*

■ Rural ■ Urban

*Projected Population

Data source: Pennsylvania State Data Center.

Rural and Urban Mix

Figure 2 depicts the proportion of population in rural and urban counties. In short, even more of the state's population will be concentrated in urban areas by 2050. In 2020, 26 percent of Commonwealth residents lived in rural counties, compared with an estimated 24 percent in 2050. A 2 percent net change in the urban-rural mix is equivalent to a nearly 600,000-person shift between rural and urban county population over the next 30 years.

Figure 2: Projected Proportion of Population, Rural and Urban Counties, 1990 to 2050

	1990	2000	2010	2020	2030*	2040*	2050*
Urban	72.6%	72.4%	72.7%	74%	74.6%	75.3%	75.9%
Rural	27.4%	27.6%	27.3%	26%	25.4%	24.7%	24.1%

■ Rural ■ Urban

*Projected Percentage

Data source: Pennsylvania State Data Center.

Population Change, 2020 to 2050

At the county level, rural and urban population change is projected to follow statewide trends with a few exceptions. Figure 3 depicts the projected population change from 2020 to 2050 for every county in Pennsylvania. Population growth is largely driven by urban counties in the southeast of the state, consistent with the demographic trends of the past few decades. Philadelphia's 14.7 percent population growth represents more than 50 percent of expected growth in all urban areas. However, counties farther north and west are more likely to experience population decline or stagnation over the next 30 years. While many rural counties are expected to experience population declines, there are notable exceptions. Centre, Union, and Indiana counties are all projected to experience significant growth, as these counties are home to a large amount of group quarters, including universities and prisons. Overall, 41 counties are projected to face significant population decline, with another 10 projected to remain relatively stable in population. Only three counties losing population (Beaver, Bucks, and Westmoreland) are classified by the Center as urban counties. These population changes will have a limited effect on the Center's classification of counties as rural or urban, which has remained consistent for the past 30 years. The only projected change is Westmoreland County, which is estimated to transition to a rural county in 2050.

Figure 3: Projected Statewide Population Change, 2020 to 2050
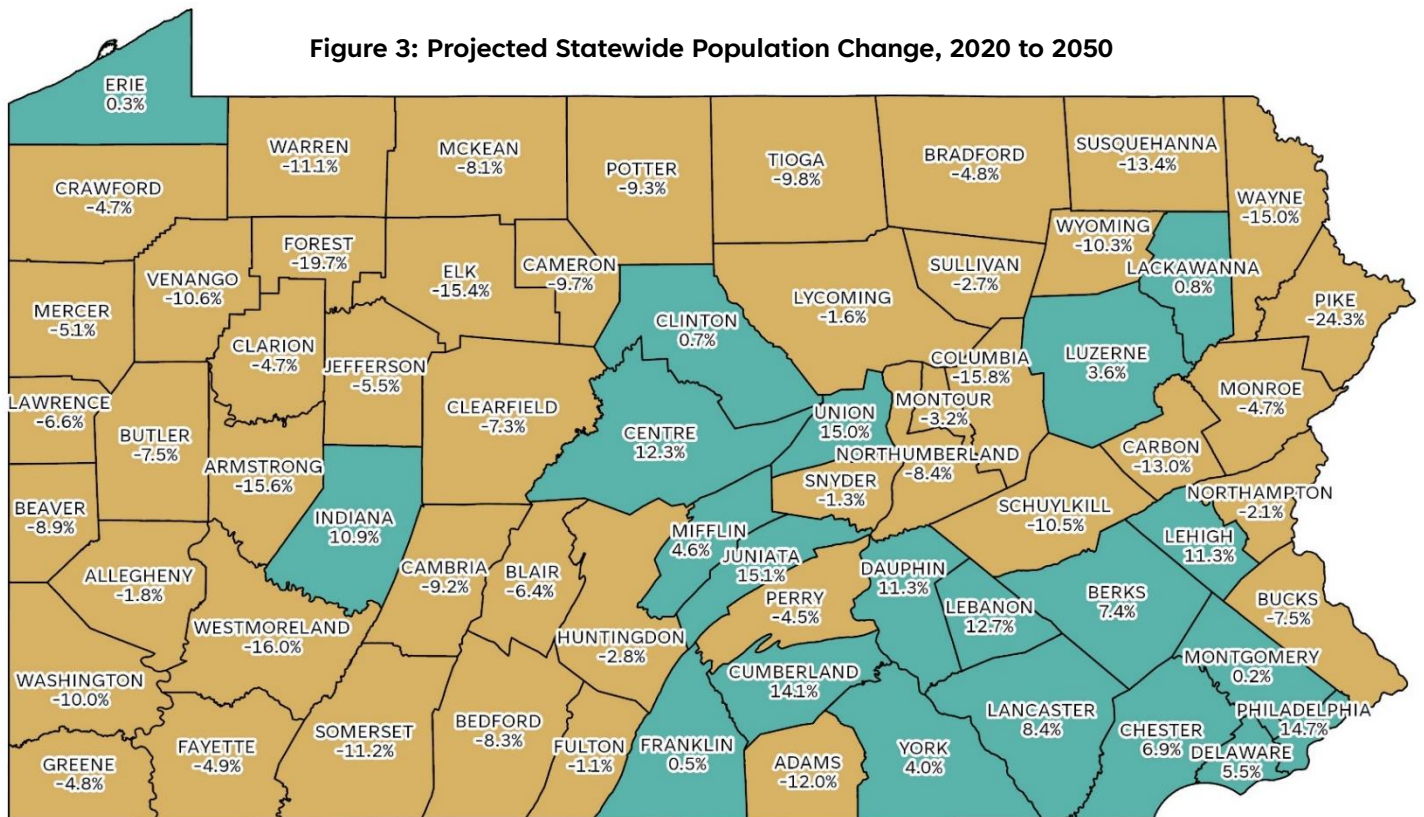


Statewide Population Change: 1.6%

- -24.3% – 0.0% (46)
- 0.1% – 15.1% (21)

Data source: Pennsylvania State Data Center.

Changing Age Cohorts

One of the most significant changes driving estimated populations in Pennsylvania is the relative increased age of the population over the next 30 years. As the Baby Boomer generation continues to retire and age, the population of residents over 65 is going to sharply increase. This trend, contrasted with a declining statewide birth rate, means that rural Pennsylvanians over the age of 65 will soon outnumber those under 20, as depicted in Figure 4. This shift in population has significant implications for workforce and economic planning, as governments and the private sector adapt to supporting more retired and elderly residents with a smaller workforce. It is important to note that Pennsylvania's retirement-age population will peak in 2035, suggesting that the economic adjustments to support the aging population may require expedient action. This change will undoubtedly affect a wide range of policies across the Commonwealth, including, but not limited to, housing, health care, education, and transportation.

**Figure 4: Projected Rural Youth vs. Senior Population, 1990 to 2050**
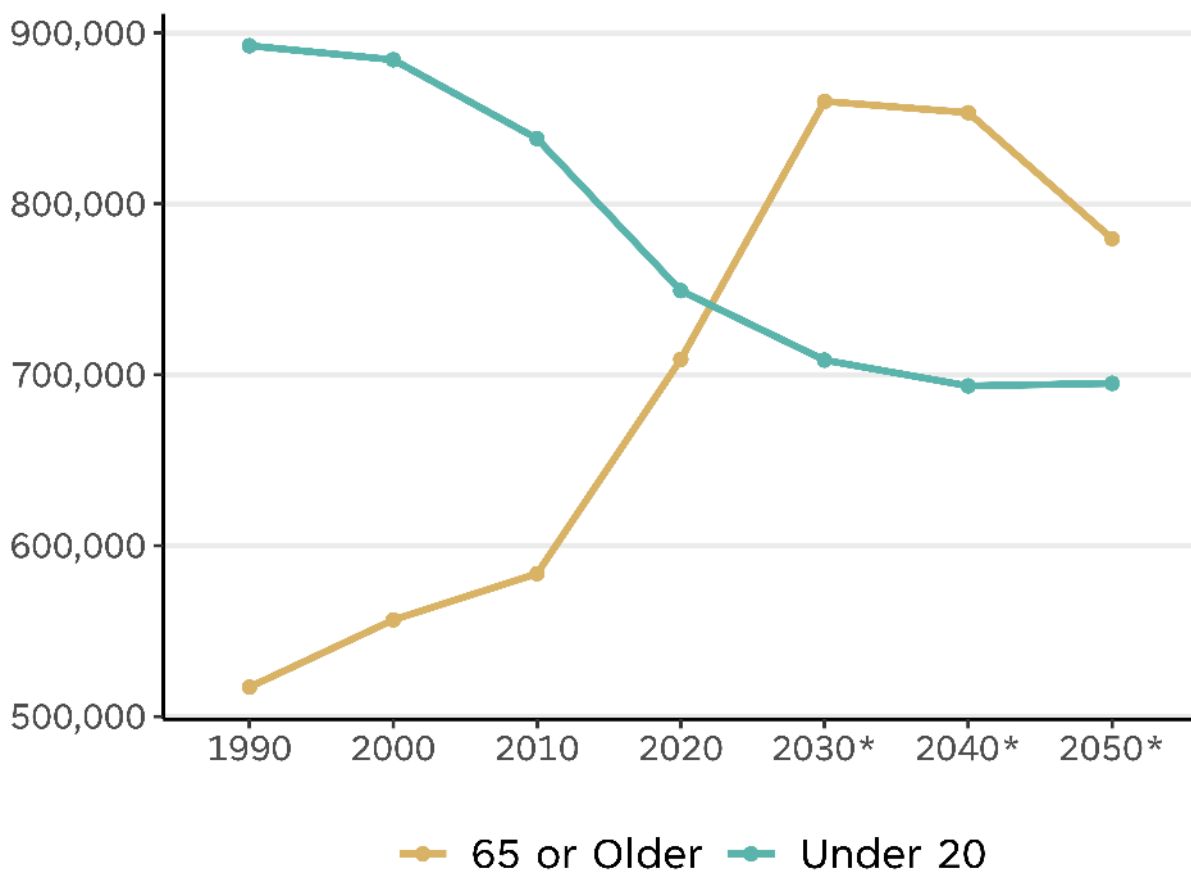
*Projected Population

Data source: Pennsylvania State Data Center.

Dependency Ratios

The dependency ratio is a measure of workforce stability and care needs for an area, by comparing the number of retirement-age residents and youth with the number of working-age residents. The higher the number, the more financial stress on the labor of working-age residents. Figure 5 depicts the historical trends of the dependency ratio for rural and urban Pennsylvania counties back to 1990. As the graph suggests, the movement of the Baby Boomer generation into retirement age represents a new period of high dependence, driven by increased need for geriatric care. Since 1990, the dependency ratio has been relatively consistent between urban and rural counties, though urban counties tend to maintain a lower ratio because of the larger number of working-age adults. However, the Center's population projections suggest that as Baby Boomers continue to age, the relative lack of working-age adults in rural counties will cause the rural dependency ratio to sharply increase while the urban ratio levels out. This separation suggests the workforce needs for senior care in rural counties could be significant over the next decade relative to urban areas.

Figure 5: Projected Rural and Urban Dependency Ratio, 1990 to 2050
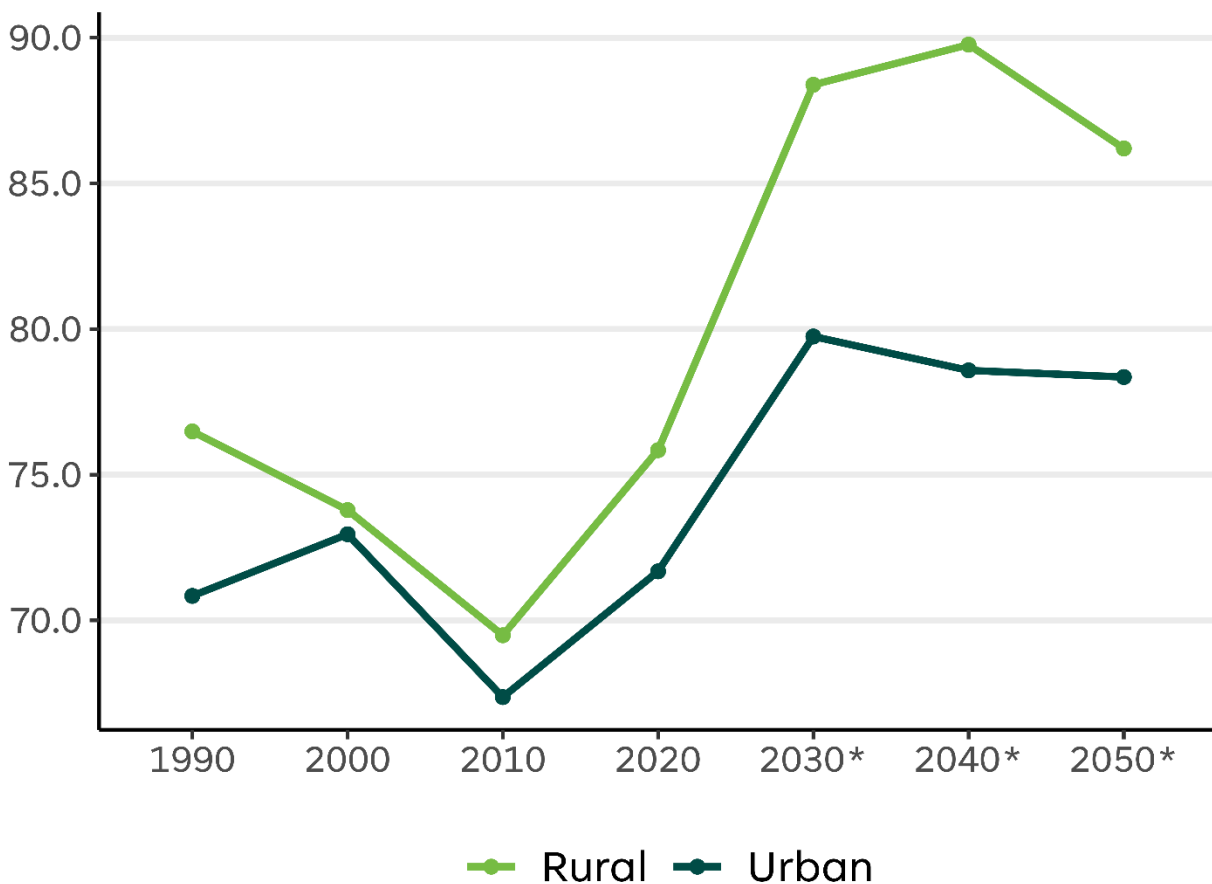
*Projected Ratio

Data source: Pennsylvania State Data Center.

Table 1: Percentage of Population Change by County, 2020 to 2050

Geography	Population, April 1, 2020	Population Projection, 2050	% Change, 2020-2050	Geography	Population, April 1, 2020	Population Projection, 2050	% Change, 2020-2050
Pennsylvania	12,994,440	13,195,897	1.6%	Juniata	23,471	27,013	15.1%
Adams	103,779	91,297	-12.0%	Lackawanna	215,523	217,277	0.8%
Allegheny	1,249,524	1,226,933	-1.8%	Lancaster	552,761	599,146	8.4%
Armstrong	65,459	55,277	-15.6%	Lawrence	85,959	80,246	-6.6%
Beaver	167,860	152,940	-8.9%	Lebanon	143,282	161,410	12.7%
Bedford	47,569	43,624	-8.3%	Lehigh	374,477	416,810	11.3%
Berks	428,631	460,295	7.4%	Luzerne	325,197	336,757	3.6%
Blair	122,651	114,846	-6.4%	Lycoming	114,108	112,305	-1.6%
Bradford	59,969	57,080	-4.8%	McKean	40,392	37,123	-8.1%
Bucks	646,112	597,516	-7.5%	Mercer	110,534	104,858	-5.1%
Butler	194,056	179,504	-7.5%	Mifflin	46,144	48,275	4.6%
Cambria	133,199	120,889	-9.2%	Monroe	168,316	160,476	-4.7%
Cameron	4,531	4,091	-9.7%	Montgomery	856,938	858,686	0.2%
Carbon	64,744	56,315	-13.0%	Montour	18,129	17,547	-3.2%
Centre	157,962	177,459	12.3%	Northampton	312,774	306,295	-2.1%
Chester	534,783	571,892	6.9%	Northumberland	91,542	83,826	-8.4%
Clarion	37,193	35,428	-4.7%	Perry	45,828	43,761	-4.5%
Clearfield	80,438	74,585	-7.3%	Philadelphia	1,600,600	1,836,216	14.7%
Clinton	37,380	37,649	0.7%	Pike	58,560	44,313	-24.3%
Columbia	64,682	54,437	-15.8%	Potter	16,385	14,856	-9.3%
Crawford	83,797	79,890	-4.7%	Schuylkill	142,946	127,877	-10.5%
Cumberland	260,223	297,010	14.1%	Snyder	39,727	39,212	-1.3%
Dauphin	286,685	318,974	11.3%	Somerset	74,016	65,754	-11.2%
Delaware	576,323	608,268	5.5%	Sullivan	5,823	5,663	-2.7%
Elk	30,926	26,154	-15.4%	Susquehanna	38,334	33,184	-13.4%
Erie	270,539	271,352	0.3%	Tioga	41,014	37,011	-9.8%
Fayette	128,569	122,279	-4.9%	Union	42,639	49,022	15.0%
Forest	6,959	5,585	-19.7%	Venango	50,354	45,041	-10.6%
Franklin	155,939	156,786	0.5%	Warren	38,516	34,223	-11.1%
Fulton	14,572	14,416	-1.1%	Washington	209,382	188,354	-10.0%
Greene	35,859	34,145	-4.8%	Wayne	51,151	43,489	-15.0%
Huntingdon	44,047	42,809	-2.8%	Westmoreland	354,316	297,459	-16.0%
Indiana	83,142	92,213	10.9%	Wyoming	26,030	23,344	-10.3%
Jefferson	44,478	42,046	-5.5%	York	456,692	475,084	4.0%

Data source: Pennsylvania State Data Center.

Conclusion

Population projections provide an opportunity for planners and policymakers to consider and adapt to the changes that are likely to develop in their communities. Current demographic trends and the retirement of America's largest generation suggest substantial economic pressures are coming in the next decade. The population projections presented here are consistent with the findings of similar work in Ohio and West Virginia, and likely true of other regions comparable to rural Pennsylvania across the nation. Small population sizes, lower density, and a relatively older populace will exacerbate pressures in rural communities, which must adapt while managing prolonged decline. While these challenges are significant, they are not insurmountable. Communities across Pennsylvania should carefully consider the implications of these projections. Given the wide range of policies that are implicated by population change, long-term planning that incorporates the expertise of a variety of stakeholders—e.g., state and local officials, nonprofit groups, business and industry leaders, among others—will ensure that the Commonwealth is prepared for these changes, and that our rural communities remain resilient in the coming decades.