Pennsylvania Population Projections 2050: Pink Wave

Introduction: Over Half of Pennsylvania Rural Counties Will be Majority Female by 2050

In October 2023, the Center for Rural Pennsylvania, in partnership with the Pennsylvania State Data Center, released projected population changes by county, through the year 2050. In addition to the aggregate population change in rural and urban counties, the projections contain further detail on the distribution between males and females. Based on this distribution, it is expected that over half of rural counties in Pennsylvania will have slightly more female residents than male (see Figure 1). This Fact Sheet summarizes important information related to the expected female population growth to inform a wide range of policy issues.

Key findings include:
- The increase in the number of majority-female rural counties is driven by females 65 years old or older.
- Working-age females (age 20 to 64) are anticipated to decline the fastest.
- The number of females who are of childbearing age (age 15 to 44) is projected to fall for urban counties but increase for rural counties.
- The general fertility rate is projected to contract more rapidly for urban counties than for rural counties.
- Historically, females and older adults have lower labor force participation rates. If those trends continue, these factors will likely exacerbate future workforce challenges for rural Pennsylvania.

Distribution of Females

While all 19 urban counties are currently majority female, it is projected that one urban county (Cumberland) will flip to majority male by 2050. Three rural counties (Blair, Clinton and Montour) are expected to shift from majority female to majority male.

### Figure 1: Majority Male Versus Female Counties from 2020 to 2050 (Projection)
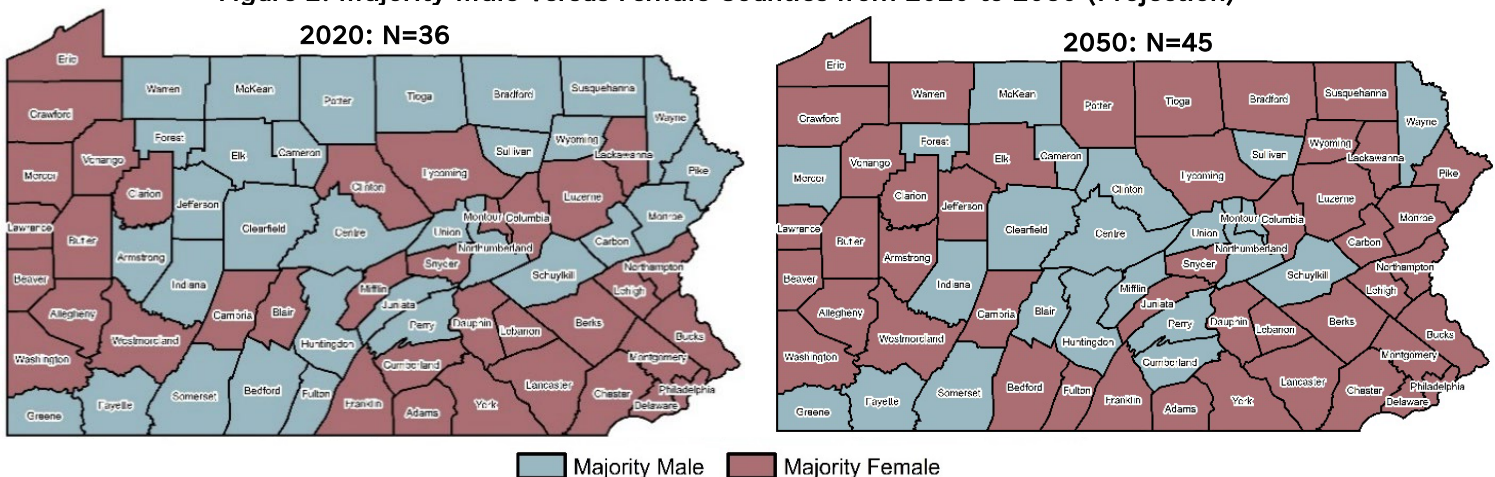
Data source: The Pennsylvania State Data Center.

Changing Age Cohorts Among Female Population

Figure 2 graphs historical and projected growth rates in the female population for rural and urban counties by three age cohorts: (1) less than 20 years old, (2) 20 to 64 years old, and (3) over 65 years old. Total growth in the female population is expected to be driven by females age 65 or older (+23 percent from 2020 to 2050). Most of that growth is anticipated to occur between 2020 and 2030. However, by 2050, rural counties will experience a significant decline in older females, while urban counties are anticipated to experience relatively flat growth for that population. The contraction in the female population age 20 to 64 (working-age) is projected to decline substantially for rural counties (-11 percent), entirely driving the overall future statewide contraction in working-age females (-3 percent).

**Figure 2: Historical and Projected Growth in Female Population by Age Cohort for Rural and Urban Counties**

Age <20

Age 20-64

Age 65+
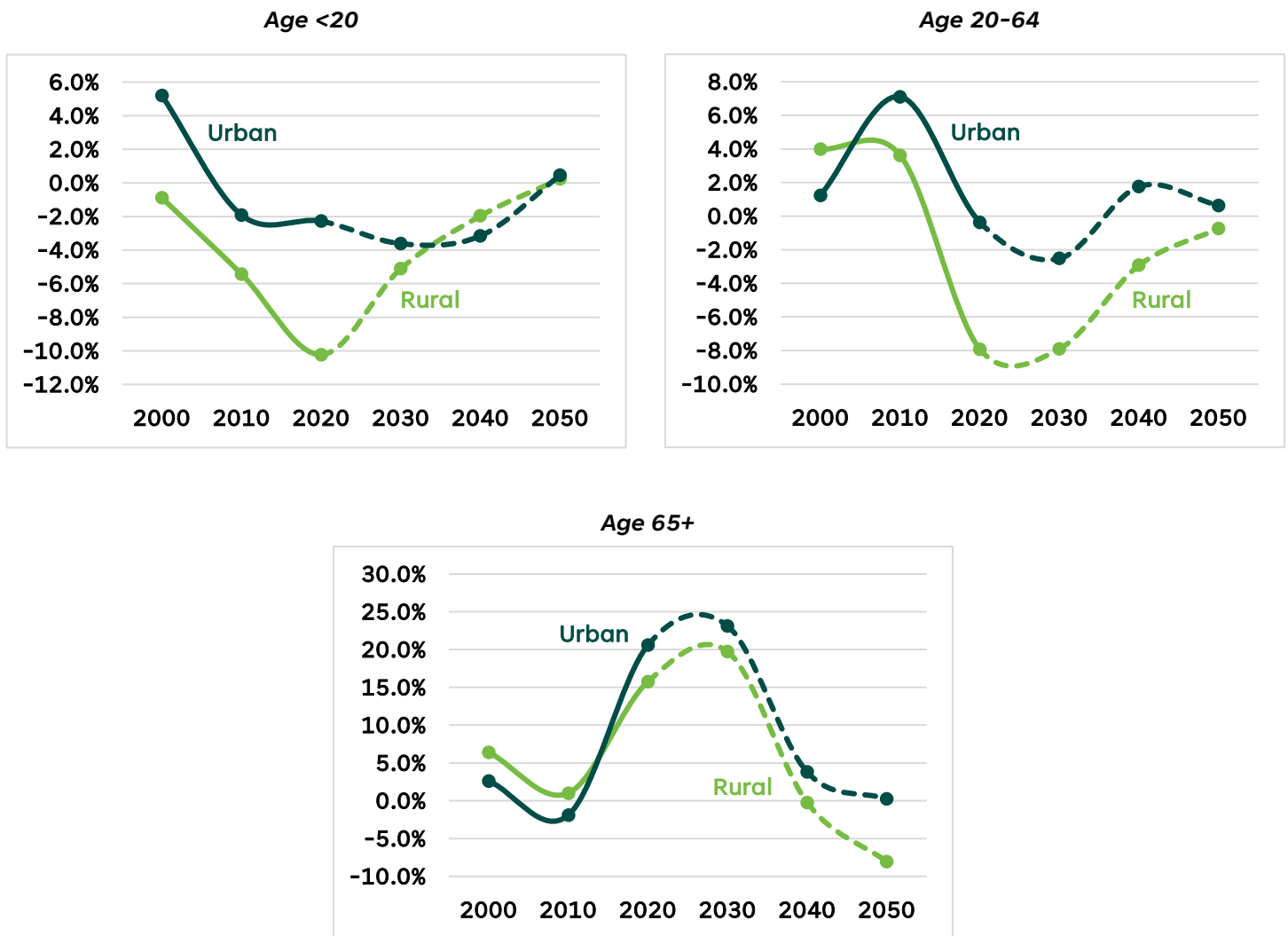
Data source: Pennsylvania State Data Center.

Females of Childbearing Age

One of the key indicators for population growth is the rate of natural increase, which is the number of deaths subtracted from the number of births and divided by the total population. A key part of measuring the ability of a population to grow at a natural rate is the number of female residents who are within the standard fertility age range (age 15 to 44).

Figure 3 shows the changes in the share of females age 15 to 44, as compared to the total female population, for rural and urban counties. The share of females age 15 to 44 is anticipated to grow for rural counties, from 34 percent in 2020 to 36 percent in 2050. However, that same share for urban counties is expected to decline over that period (38 percent to 36 percent), with the most significant decline occurring from 2030 to 2040.

Figure 3: Percentage Point Change in the Share of Females Age 15 to 44, Rural Versus Urban
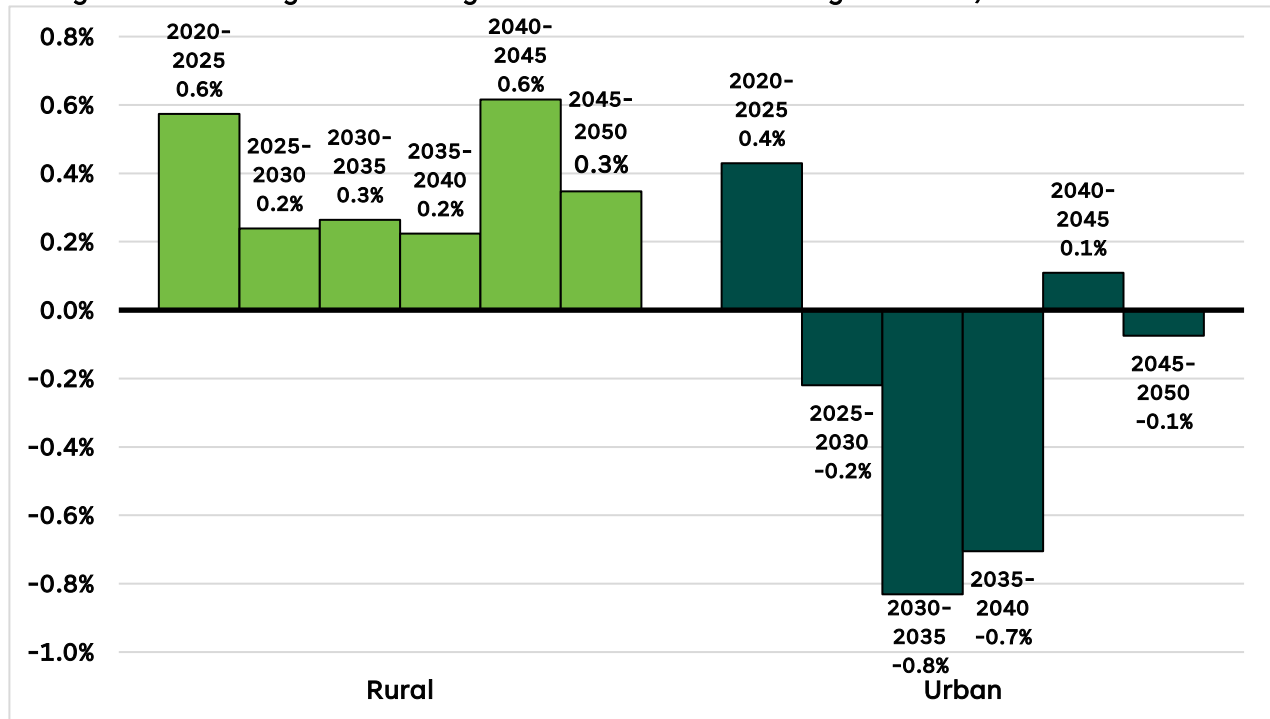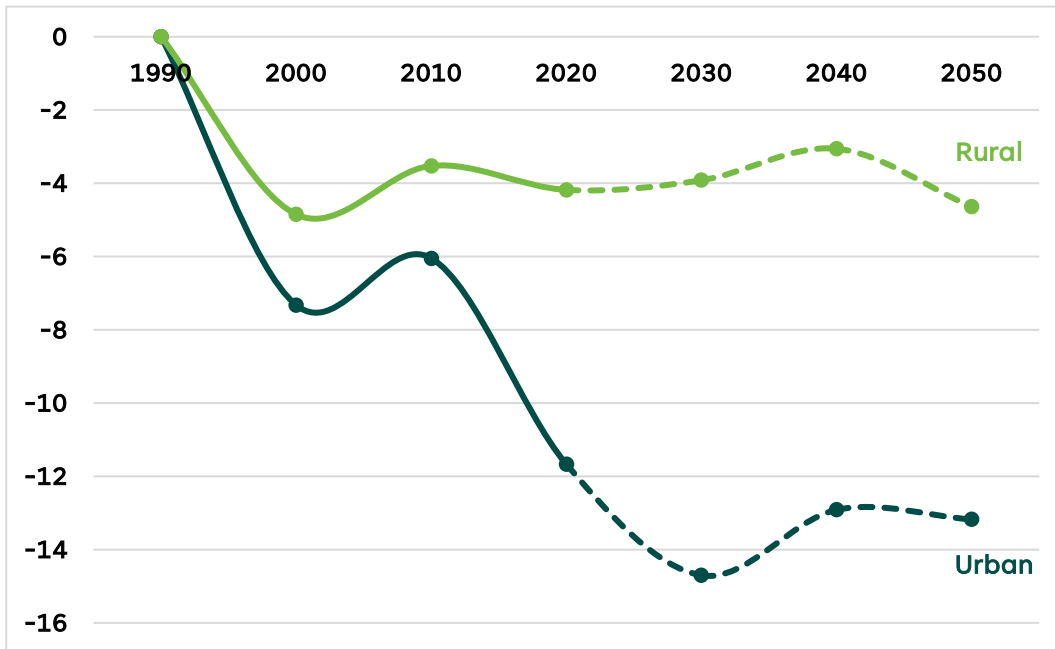

Data source: The Pennsylvania State Data Center.

Population Fertility

Although there may be a higher projected share of females within typical childbearing years in rural counties, that does not necessarily correlate to higher birth rates. To assess changes in birth rates, the general fertility rate statistic is used. The fertility rate statistic is calculated by taking the number of births and dividing them by the population of females age 15 to 44, then multiplying by 1,000. Figure 4 tracks these fertility rates for rural and urban counties over time and indexes the changes to 1990. The rate is projected to contract rapidly for urban counties (-13 percentage points), consistent with historical trends, while the contraction for rural counties is anticipated to be significantly slower (-5 percentage points).

**Figure 4: Change in General Fertility Rates Since 1990, Rural Versus Urban**

Data source: The Pennsylvania State Data Center.

Female Workforce and Labor Force Participation

The workforce is likely to be affected by the increase in the female population. Nationally, female workers comprise about half of all active employees, but historical data indicates that overall participation in the labor force is notably lower for females, particularly for females residing in rural areas. Figure 5 shows that 72 percent of females age 20 to 64 in rural counties were part of the labor force in 2022. That ratio was higher in urban counties, where 77 percent of females age 20 to 64 were part of the labor force.

Figure 5: Share of Females Age 20-64 in the Labor Force for 2022, Rural Versus Urban
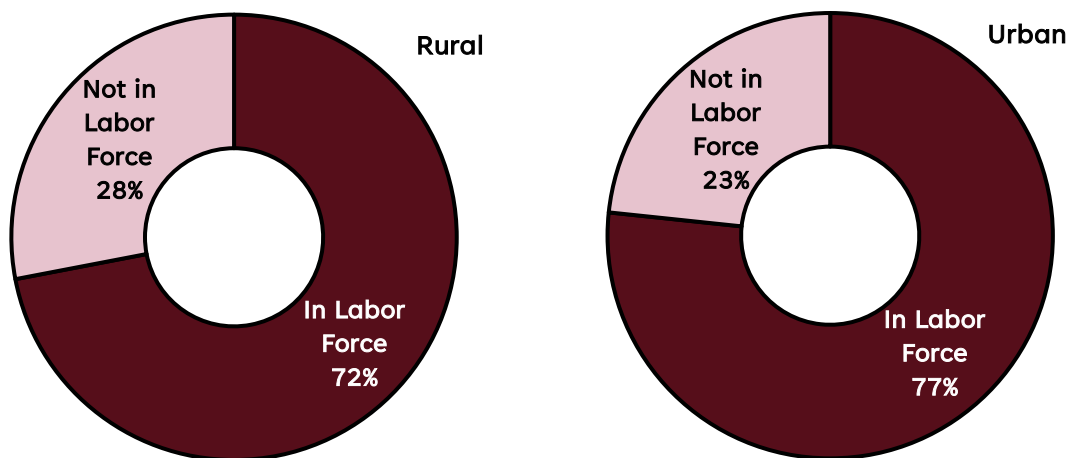
Data source: American Community Survey 5-Year Estimates, U.S. Census Bureau.

Historically, the share of females in the labor force has only increased marginally over the past decade for rural and urban counties. Moreover, the labor force participation rates for older adults in general are lower than those for working-age residents. Therefore, since the population projections indicate there will be more older female residents in rural Pennsylvania, this has the potential to result in lower statewide participation in the labor force.

Conclusion

Many factors contribute to the projected increase in the number of majority-female rural counties, including: life expectancy; biology; and social, technological, cultural, and economic influences. Population projections provide an opportunity for planners and policymakers to consider and adapt to the changes that are likely to develop in their communities. As such, consideration should be given to the potential need for programs and services that affect the female population. For example, access to reproductive health care, maternity care, and child care.

Current data has shown that the general fertility rate for the Commonwealth has been in decline for several decades and is expected to continue into the projection years. At the same time, a comparably older populace will exacerbate demographic pressures in rural areas. Furthermore, both the female and older populations have historically had lower rates of participation in the labor force, which will likely add to the challenges of supporting an increasingly aging population.