

West Virginia Pre-K–12 Enrollment Projections

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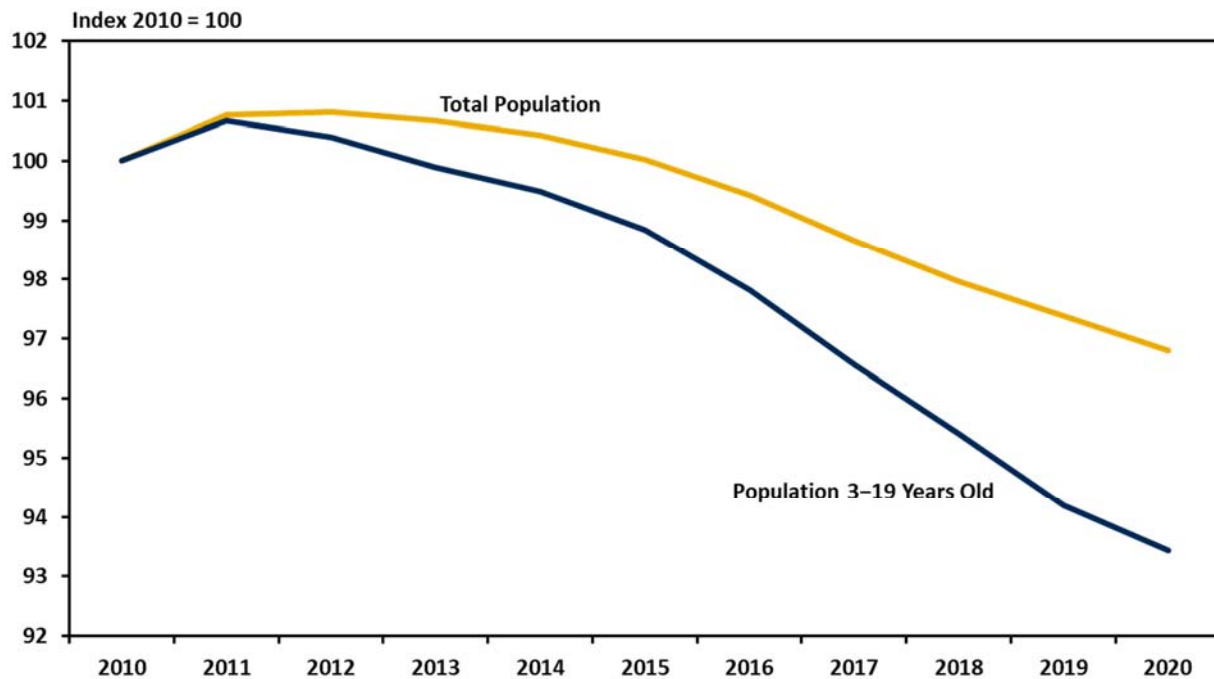
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1 West Virginia pre-K–12 Population and School Enrollment: Recent Trends

Population Ages 3–19: We begin with a presentation of trends in population and school enrollment over the past decade. In Figure 1, we report the overall population of children ages 3 to 19 in West Virginia. As illustrated, the total ages 3 to 19 population fell by around seven percent over the decade represented. This drop in the youth population is much greater than the loss in total population of approximately three percent.

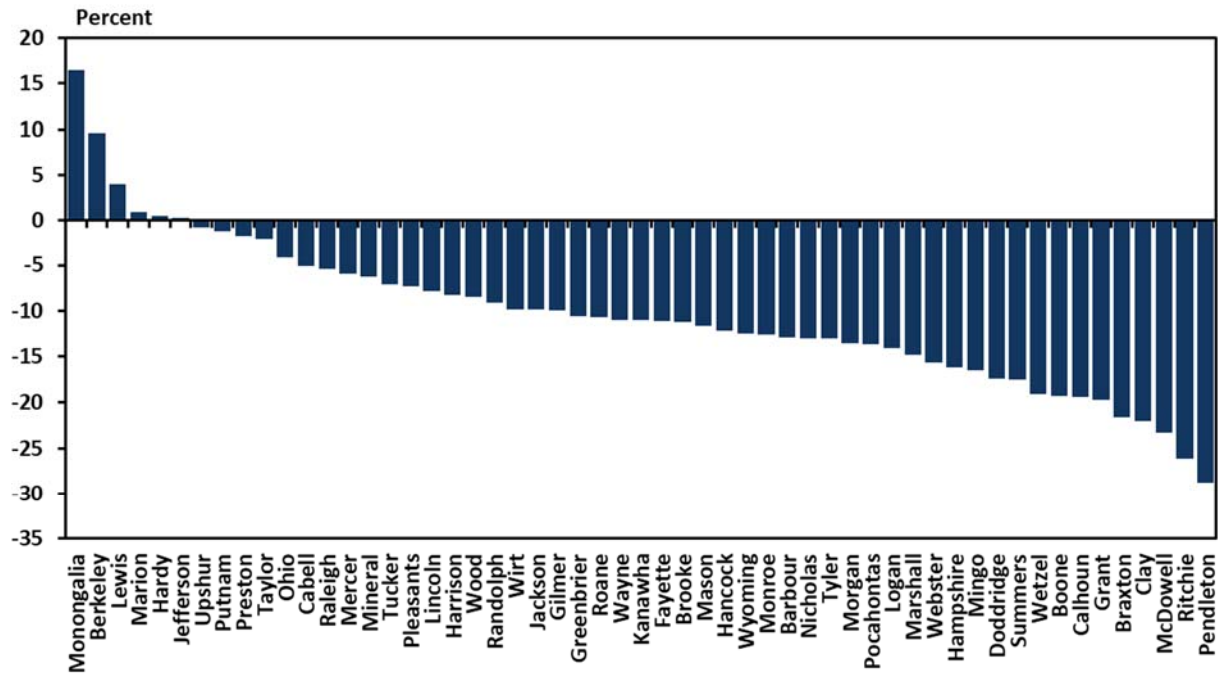
Figure 1: West Virginia Population 3–19 Years Old



Source: Authors' calculations based on the 2010 and 2020 Censuses and 2020 Population Estimates

Population Ages 3–19 by County: In Figure 2 we illustrate the population ages 3–19 change by county. Here we see that the youth population fell in all but six West Virginia counties between 2010 and 2020. Only three counties showed sizeable population gains – Monongalia, Berkeley, and Lewis. Population losses range from very small all the way up to a loss of nearly 29 percent in Pendleton County.

Figure 2: West Virginia Population 3-19 Years Old by County, 2010 through 2020

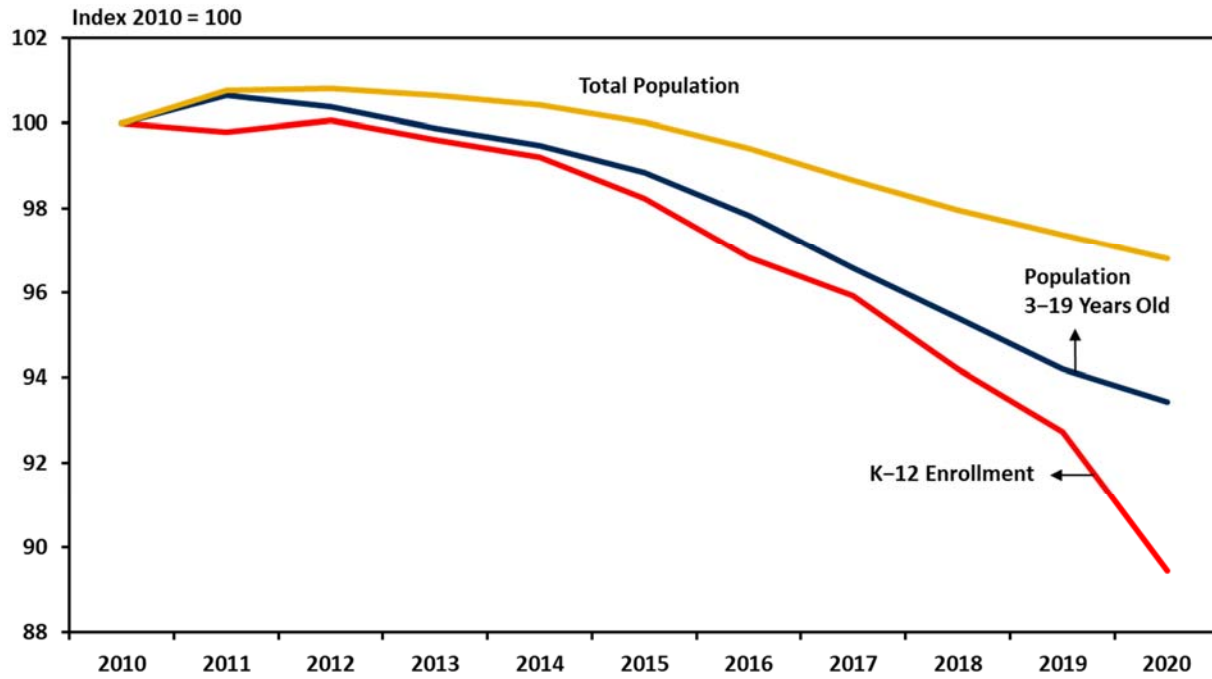


Source: Authors' calculations based on the 2010 and 2020 Censuses and 2020 Population Estimates



Pre-K–12 School Enrollment: In Figure 3 we report the actual K-12 enrollment in West Virginia over the past decade (with the broader population figures presented above for illustrative purposes). Here we see that the actual enrolment figure fell by more than 10 percent over the decade. This falls short of the broader population figure, which as stated above, fell by just over eight percent. Note, however, the sharp drop in the 2020 enrollment is likely affected by the COVID-19 pandemic.

Figure 3: West Virginia pre-K–12 School Enrollment

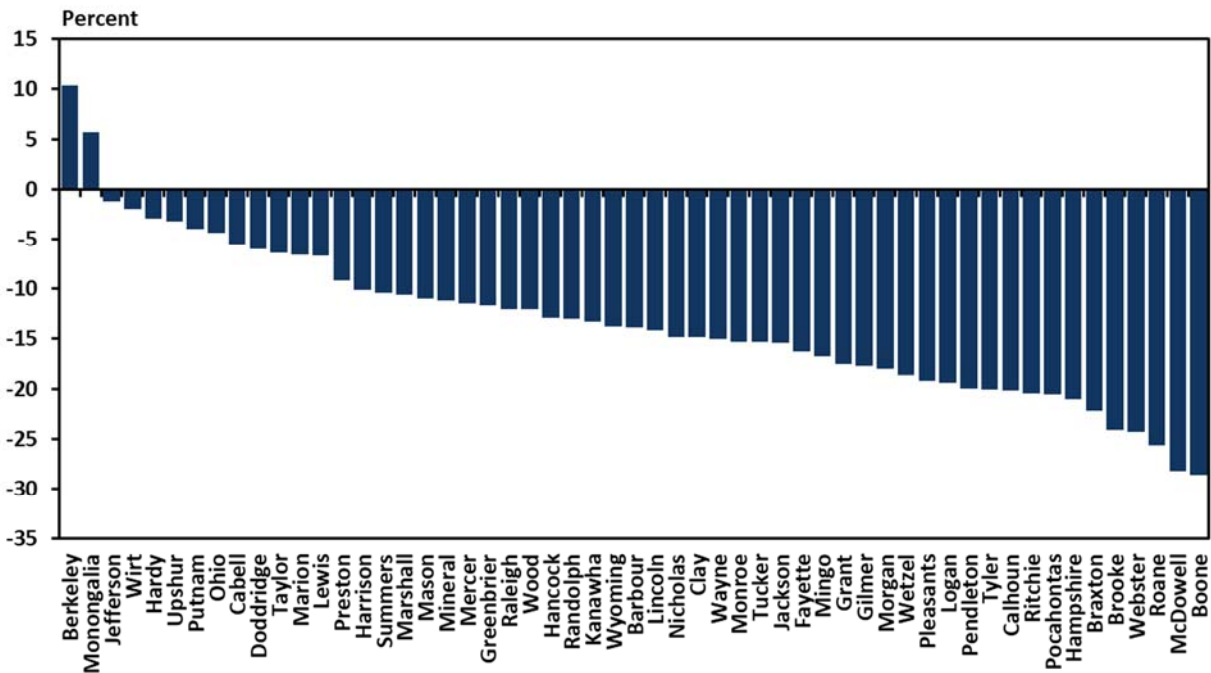


Source: West Virginia Department of Education



Pre-K–12 Enrollment by County: In Figure 4 we illustrate the pre-K–12 enrollment figure by county. Similar to the county-level data reported above, we see that the large major of West Virginia counties loss pre-K–12 student enrollment over the period 2010 through 2020. Indeed, only Berkeley and Monongalia counties experienced enrollment increases over the decade. Boone County suffered the largest enrollment loss with a student population decline of nearly 29 percent.

Figure 4: Change in pre-K–12 School Enrollment between 2010 and 2020 by County

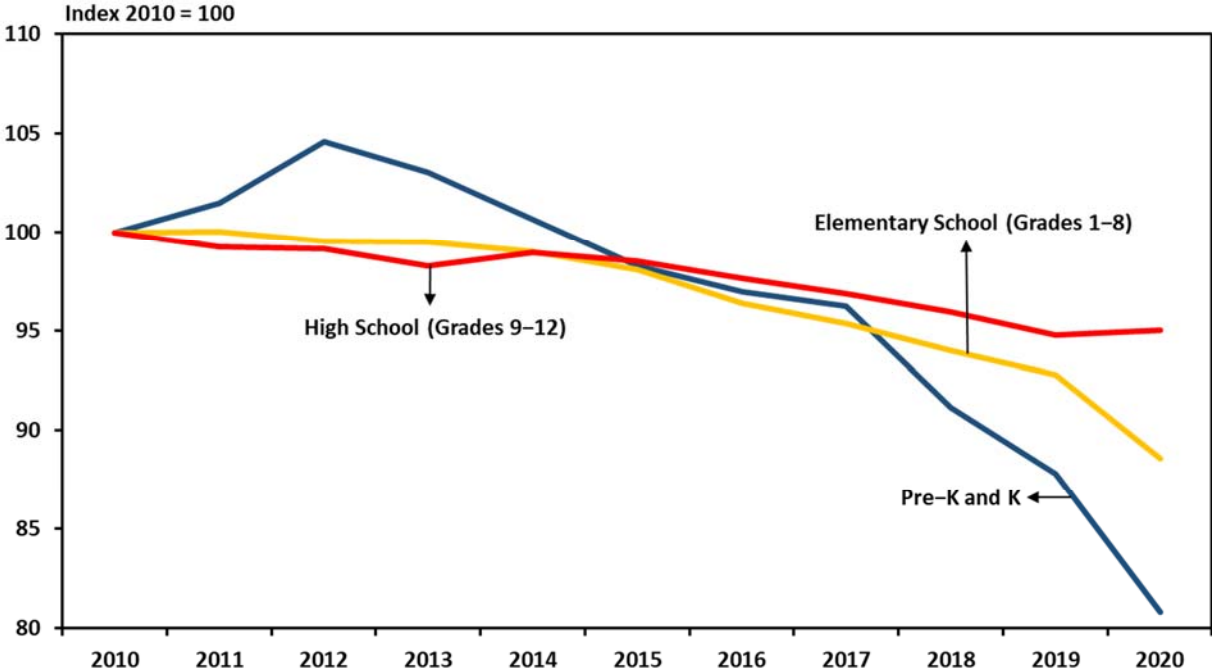


Source: West Virginia Department of Education



Pre-K–12 School Enrollment by Grade: In Figure 5 we report the actual pre-K–12 enrollment in West Virginia over the past decade by grade. Here we see high school enrollment fell by five percent while elementary school fell by about 11 percent over the last decade. Again, the sharp drop in the 2020 elementary enrollment is likely affected by the COVID-19 pandemic. In contrast, pre-K and Kindergarten enrollment fell by 20 percent. Pre-K and Kindergarten enrolment also shows a much higher volatility over the decade compared to the other two categories.

Figure 5: West Virginia pre-K–12 School Enrollment by Grade



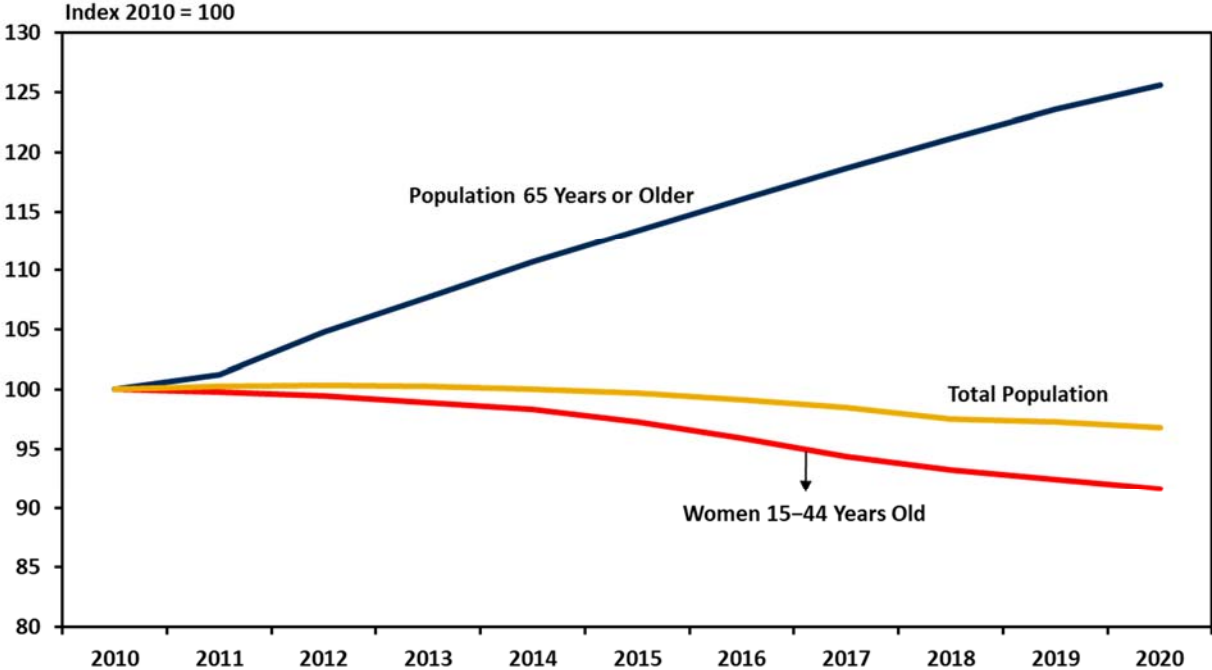
Source: West Virginia Department of Education



2 West Virginia Population, Components of Change

Total Population by Age: In this section we turn our attention to the total population of West Virginia and the fundamental components of population change. In Figure 6, we present total population, along with the elderly population, and the population of women who are defined to be of childbearing age as this statistic connects with data on births. As reported, the total population of the state fell by just over three percent, as stated above. In sharp contrast, the elderly population increased dramatically, growing by nearly 26 percent over the decade. This implies that the population of people who are less than 65 years old fell by more than the overall rate of population decline. And indeed, as reported, the population of women of child-bearing age fell by just over eight percent. These dynamics – of a growing elderly population and a declining younger population – point to natural population decline, as discussed in the next figure.

Figure 6: West Virginia Population, Select Age Group



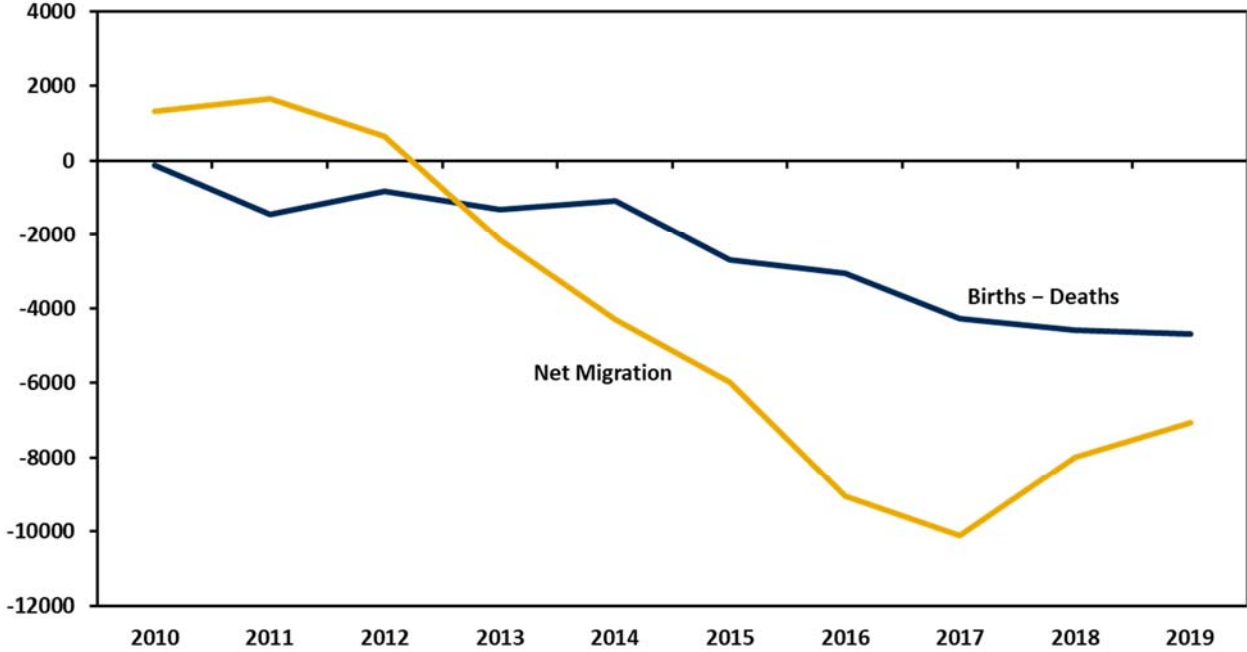
Source: West Virginia Department of Education



Components of Population Change: In Figure 7 we report the two fundamental components of the population change reported in the last figure: natural population change and net migration. Natural population change results simply from the difference of births and deaths. In West Virginia, we observe a death rate that exceeds the birth rate, thus the state experiences natural population decline (as opposed to natural population growth). As reported in the figure, West Virginia lost nearly 4,700 residents due to the excess of deaths over births in 2020. The state has experienced natural population decline over the entire decade depicted, but the severity of the decline has increased over the last few years.

The second component of population change is net migration. West Virginia has experienced negative net migration for most of the past decade, meaning that the state experiences more out-migration than in-migration. In 2020, the state lost over 7,000 residents due to net migration. However, this figure is quite volatile. Many factors determine net migration in a state, but one fundamental determinant is the availability of desirable employment opportunities in the state compared to employment opportunities elsewhere.

Figure 7: Components of Population Change



Source: Population Estimates, US Census Bureau

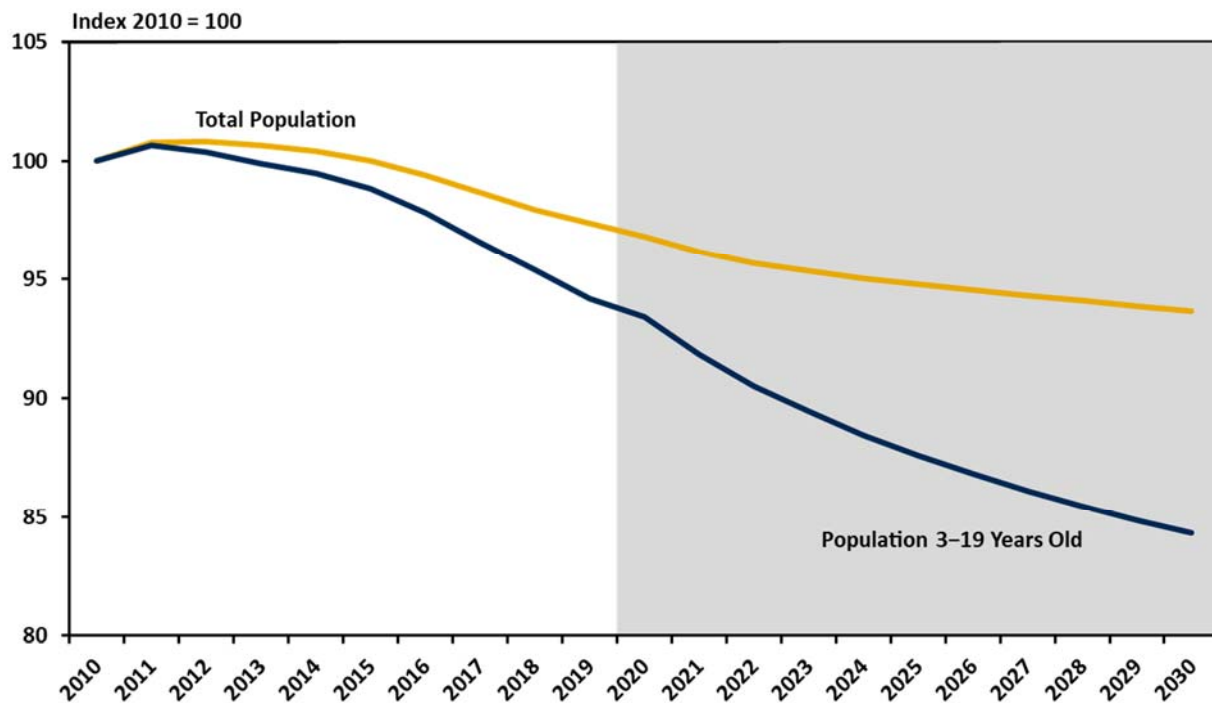


3 Projection of West Virginia pre-K–12 School Enrollment

Methodology: In this last section we report our population projections for the current decade. The projection consists of two steps. In the first step, we apply the cohort component method to project the future school age population (age 3 to 19 years old). We project three components of population change, which includes births, deaths, and net migration, for each population cohort. We advance each cohort of the base population forward by using projected survival rates and net migration rates. We incorporate our forecast of job growth to project net migration rates. In the second step, we apply school enrollment patterns in West Virginia to the projected school-age population to estimate the future school enrollment.

Projected Population Ages 3-19: In Figure 8, we report the expected total population and the expected ages 3–19 population. Overall, we expect the total population to decline at a similar pace compared to what has been observed over the past decade. Ultimately, we expect the West Virginia population to stand at nearly 94 percent of its 2010 level by 2030. Likewise, we expect the population aged 3-19 to continue its decline in a similar fashion. Overall, we expected the ages 3–19 population to stand at over 84 percent of its 2010 level by 2030.

Figure 8: Projected Population 3–19 Years Old

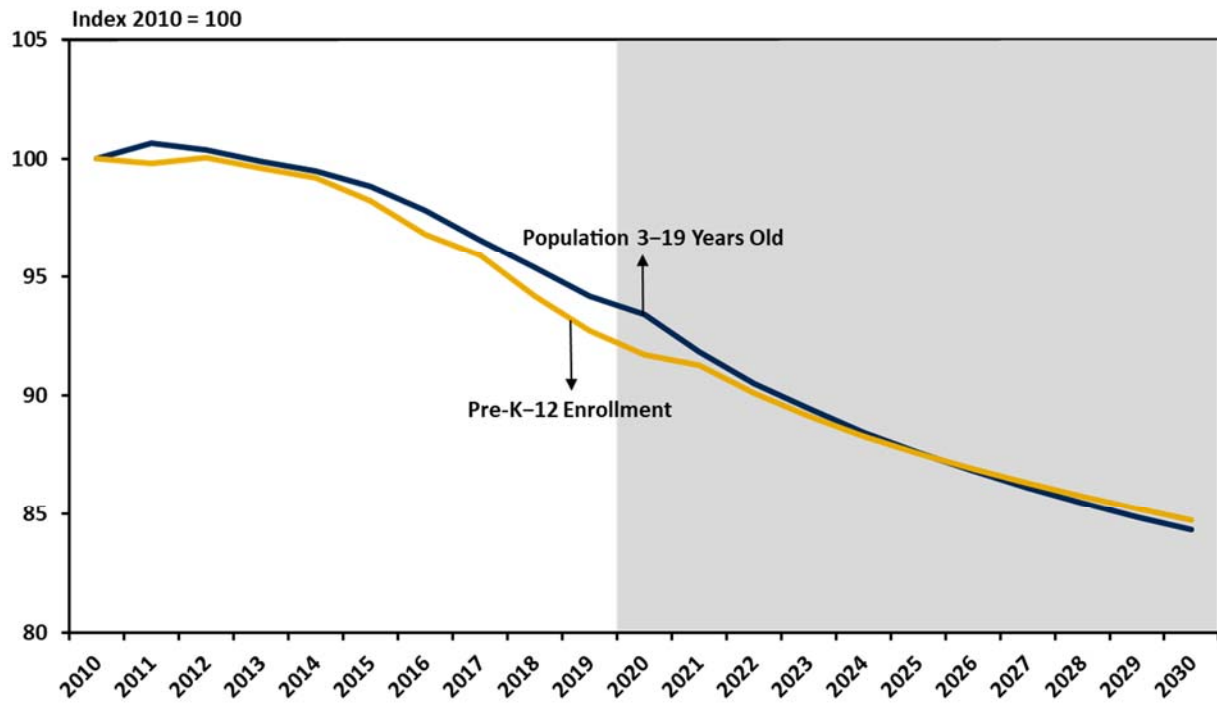


Source: Authors' calculations



Projected pre-K-12 School Enrollment: In Figure 9, we report the expected pre-K–12 school enrollment over the coming decade. Overall, we expect school enrollment to follow a path that is very similar to the age 3–19 population, reported in the previous figure. As such, we expect that pre-K–12 enrollment in West Virginia to stand at nearly 85 percent of its 2010 level by 2030.

Figure 9: Projected pre-K–12 School Enrollment

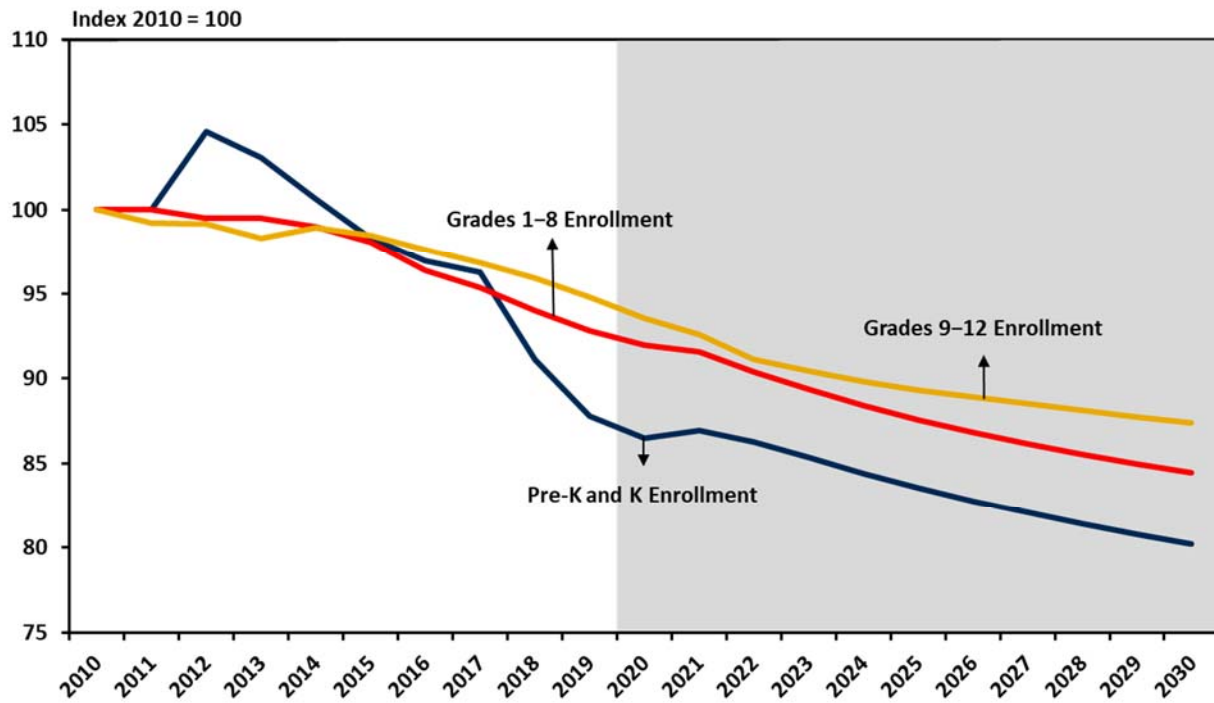


Source: Authors' calculations



Projected pre-K–12 School Enrollment by Grade: In Figure 10, we show the projections of enrollment by grade for the state of West Virginia. As depicted, we expect enrollment to fall for all grade categories. But the continued decline will be least severe for high school enrollment. In contrast, pre-K and Kindergarten enrollment is expected to stand at only 80 percent of its 2010 level by 2030.

Figure 10: Projected pre-K–12 School Enrollment by Grade



Source: Authors' calculations



Projected pre-K–12 School Enrollment by County: In Figure 11, we close the report with projections of pre-K–12 enrollment for West Virginia counties. For projections by grade and county, see Appendices. Here we also show projections for the years 2022, 2025, and 2028.

As depicted, we expect enrollment for the majority of West Virginia counties to gradually decline, continuing their previous trends. Berkeley County is the only county in which enrollment will continue to rise through 2030. Jefferson and Monongalia counties are expected to experience enrollment increases for some years between 2020 and 2030.

Figure 11: Projected Pre-K–12 Enrollment by County, Select Years

County	Actual	Projection		
	2019	2022	2025	2028
Barbour	2,259	2,242	2,162	2,098
Berkeley	19,654	20,360	21,189	21,895
Boone	3,669	3,442	3,277	3,158
Braxton	1,907	1,791	1,688	1,625
Brooke	2,681	2,551	2,393	2,267
Cabell	12,111	12,094	11,825	11,620
Calhoun	926	867	821	799
Clay	1,790	1,663	1,625	1,592
Doddridge	1,118	1,079	1,047	1,019
Fayette	5,969	5,812	5,550	5,349
Gilmer	805	798	764	739
Grant	1,615	1,535	1,428	1,350
Greenbrier	4,766	4,544	4,333	4,175
Hampshire	2,962	2,729	2,566	2,447
Hancock	3,957	3,786	3,662	3,549
Hardy	2,270	2,129	2,094	2,070
Harrison	10,544	10,101	9,737	9,470
Jackson	4,481	4,275	4,074	3,918
Jefferson	8,942	8,876	8,868	8,905
Kanawha	25,373	24,241	23,396	22,773
Lewis	2,567	2,607	2,587	2,564
Lincoln	3,295	3,227	3,084	2,981
Logan	5,438	5,203	4,867	4,619
McDowell	2,825	2,672	2,485	2,332
Marion	7,873	7,778	7,652	7,535
Marshall	4,420	3,998	3,809	3,674
Mason	3,928	3,794	3,627	3,519
Mercer	8,688	8,592	8,270	8,007

County	Actual	Projection		
	2019	2022	2025	2028
Mineral	4,038	3,759	3,616	3,536
Mingo	4,003	3,754	3,587	3,456
Monongalia	11,589	11,787	11,630	11,511
Monroe	1,684	1,612	1,572	1,566
Morgan	2,219	2,089	1,929	1,787
Nicholas	3,587	3,543	3,457	3,414
Ohio	5,202	5,049	4,954	4,892
Pendleton	860	799	737	699
Pleasants	1,093	1,033	953	877
Pocahontas	978	917	847	795
Preston	4,373	4,240	4,049	3,888
Putnam	9,460	9,205	8,914	8,651
Raleigh	11,390	11,246	11,040	10,925
Randolph	3,866	3,672	3,501	3,383
Ritchie	1,339	1,274	1,211	1,171
Roane	2,010	1,961	1,869	1,774
Summers	1,448	1,304	1,236	1,178
Taylor	2,381	2,354	2,336	2,319
Tucker	974	853	816	785
Tyler	1,233	1,169	1,101	1,051
Upshur	3,737	3,672	3,652	3,639
Wayne	6,660	6,114	5,798	5,585
Webster	1,273	1,240	1,173	1,155
Wetzel	2,421	2,319	2,157	2,029
Wirt	995	980	950	929
Wood	12,216	11,973	11,743	11,607
Wyoming	3,771	3,443	3,298	3,226
WV	261,633	254,147	247,006	241,877

Source: Authors calculations



4 Projection Caveats

Every projection always comes with caveats. We are confident that the natural population decline will occur because it is driven by the basic demographic variables related to death and birth, which tend to be very stable in large populations. The other component, net-migration, however, is the most volatile component and it is highly affected by job growth within the local region relative to job growth outside of the region. If effective economic development efforts are undertaken, then the net-migration figure could improve and this could render the overall population loss over the decade less severe than expected. Moreover, sustained gains in net-migration can result in a younger average age, which in turn could increase births and decrease deaths over time.

Finally, we consider only enrollment in traditional public schools in West Virginia. We do not take into account enrollment in non-traditional public schools (e.g. charter schools), private schools, military schools, and homeschooling. While enrollment in these schools is small compared to enrollment in traditional public schools, possible gains in enrollment into these schools could help offset declining trends in the overall preK–12 enrollment in some sense.



Appendix 1: Projected Pre-K and Kindergarten Enrollment by County, Select Years

County	Actual	Projection		
	2019	2022	2025	2028
Barbour	276	298	291	282
Berkeley	2,276	2,434	2,530	2,612
Boone	395	389	371	354
Braxton	237	227	214	206
Brooke	254	250	246	243
Cabell	1,597	1,573	1,528	1,494
Calhoun	113	111	105	102
Clay	178	175	173	170
Doddridge	140	114	104	97
Fayette	700	676	641	616
Gilmer	94	97	88	82
Grant	206	196	181	168
Greenbrier	556	537	505	482
Hampshire	342	328	308	293
Hancock	456	447	418	395
Hardy	286	282	277	267
Harrison	1,273	1,261	1,214	1,180
Jackson	540	532	511	491
Jefferson	877	898	892	891
Kanawha	2,927	2,837	2,707	2,610
Lewis	335	320	317	314
Lincoln	449	444	420	403
Logan	620	611	578	539
McDowell	329	324	305	286
Marion	974	959	945	931
Marshall	544	510	485	468
Mason	497	506	483	468
Mercer	1,094	1,078	1,062	1,041

County	Actual	Projection		
	2019	2022	2025	2028
Mineral	488	481	474	478
Mingo	489	482	475	460
Monongalia	1,525	1,522	1,484	1,459
Monroe	195	192	189	186
Morgan	236	232	223	206
Nicholas	422	426	418	413
Ohio	689	655	625	602
Pendleton	89	88	86	85
Pleasants	147	142	130	120
Pocahontas	118	117	108	102
Preston	557	540	515	495
Putnam	1,089	993	947	912
Raleigh	1,349	1,389	1,362	1,347
Randolph	488	479	456	441
Ritchie	186	170	159	151
Roane	217	214	213	202
Summers	155	161	150	140
Taylor	304	281	277	275
Tucker	108	108	102	98
Tyler	146	151	142	136
Upshur	495	436	430	429
Wayne	866	779	732	698
Webster	157	162	158	156
Wetzel	315	311	284	263
Wirt	113	111	103	98
Wood	1,498	1,473	1,411	1,365
Wyoming	500	458	433	412
WV	31,506	30,967	29,985	29,214

Source: Authors calculations



Appendix 2: Projected Elementary (Grades 1–8) Enrollment by County, Select Years

County	Actual	Projection		
	2019	2022	2025	2028
Barbour	1,337	1,324	1,285	1,275
Berkeley	11,672	12,107	12,583	12,990
Boone	2,117	1,983	1,876	1,789
Braxton	1,117	1,063	1,001	963
Brooke	1,536	1,496	1,393	1,311
Cabell	7,033	7,057	6,854	6,704
Calhoun	536	499	472	459
Clay	1,109	1,016	1,009	1,001
Doddridge	668	664	660	656
Fayette	3,644	3,551	3,364	3,234
Gilmer	485	479	473	468
Grant	931	894	825	767
Greenbrier	2,818	2,704	2,544	2,428
Hampshire	1,726	1,565	1,468	1,398
Hancock	2,294	2,143	2,066	1,993
Hardy	1,319	1,234	1,207	1,197
Harrison	6,125	5,908	5,688	5,527
Jackson	2,624	2,514	2,389	2,295
Jefferson	5,299	5,201	5,165	5,160
Kanawha	14,619	14,147	13,497	13,014
Lewis	1,555	1,560	1,548	1,534
Lincoln	1,964	1,914	1,808	1,735
Logan	3,054	3,008	2,785	2,598
McDowell	1,674	1,613	1,497	1,405
Marion	4,678	4,605	4,521	4,449
Marshall	2,630	2,354	2,241	2,159
Mason	2,286	2,195	2,095	2,030
Mercer	5,259	5,247	5,024	4,849

County	Actual	Projection		
	2019	2022	2025	2028
Mineral	2,370	2,211	2,117	2,048
Mingo	2,444	2,270	2,157	2,075
Monongalia	6,669	6,851	6,681	6,566
Monroe	1,040	989	978	981
Morgan	1,297	1,199	1,098	1,015
Nicholas	2,140	2,134	2,113	2,089
Ohio	2,984	2,963	2,945	2,927
Pendleton	504	471	430	397
Pleasants	608	583	537	493
Pocahontas	578	538	496	465
Preston	2,614	2,575	2,457	2,358
Putnam	5,454	5,273	5,028	4,844
Raleigh	6,921	6,744	6,616	6,543
Randolph	2,254	2,161	2,059	1,988
Ritchie	717	672	626	597
Roane	1,183	1,139	1,074	1,018
Summers	865	728	677	635
Taylor	1,404	1,400	1,396	1,391
Tucker	567	446	422	404
Tyler	736	679	639	609
Upshur	2,184	2,177	2,175	2,167
Wayne	3,822	3,556	3,341	3,184
Webster	765	747	731	719
Wetzel	1,352	1,281	1,172	1,086
Wirt	597	593	590	586
Wood	7,164	7,119	7,076	7,034
Wyoming	2,155	1,982	1,874	1,835
WV	153,497	149,526	144,843	141,442

Source: Authors calculations



Appendix 3: Projected High School (Grades 9–12) Enrollment by County, Select Years

County	Actual	Projection		
	2019	2022	2025	2028
Barbour	646	620	586	541
Berkeley	5,706	5,819	6,076	6,293
Boone	1,157	1,070	1,030	1,015
Braxton	553	501	473	456
Brooke	891	805	754	713
Cabell	3,481	3,464	3,443	3,422
Calhoun	277	257	244	238
Clay	503	472	443	421
Doddridge	310	301	283	266
Fayette	1,625	1,585	1,545	1,499
Gilmer	226	222	203	189
Grant	478	445	422	415
Greenbrier	1,392	1,303	1,284	1,265
Hampshire	894	836	790	756
Hancock	1,207	1,196	1,178	1,161
Hardy	665	613	610	606
Harrison	3,146	2,932	2,835	2,763
Jackson	1,317	1,229	1,174	1,132
Jefferson	2,766	2,777	2,811	2,854
Kanawha	7,827	7,257	7,192	7,149
Lewis	677	727	722	716
Lincoln	882	869	856	843
Logan	1,764	1,584	1,504	1,482
McDowell	822	735	683	641
Marion	2,221	2,214	2,186	2,155
Marshall	1,246	1,134	1,083	1,047
Mason	1,145	1,093	1,049	1,021
Mercer	2,335	2,267	2,184	2,117

County	Actual	Projection		
	2019	2022	2025	2028
Mineral	1,180	1,067	1,025	1,010
Mingo	1,070	1,002	955	921
Monongalia	3,395	3,414	3,465	3,486
Monroe	449	431	405	399
Morgan	686	658	608	566
Nicholas	1,025	983	926	912
Ohio	1,529	1,431	1,384	1,363
Pendleton	267	240	221	217
Pleasants	338	308	286	264
Pocahontas	282	262	243	228
Preston	1,202	1,125	1,077	1,035
Putnam	2,917	2,939	2,939	2,895
Raleigh	3,120	3,113	3,062	3,035
Randolph	1,124	1,032	986	954
Ritchie	436	432	426	423
Roane	610	608	582	554
Summers	428	415	409	403
Taylor	673	673	663	653
Tucker	299	299	292	283
Tyler	351	339	320	306
Upshur	1,058	1,059	1,047	1,043
Wayne	1,972	1,779	1,725	1,703
Webster	351	331	284	280
Wetzel	754	727	701	680
Wirt	285	276	257	245
Wood	3,554	3,381	3,256	3,208
Wyoming	1,116	1,003	991	979
WV	76,630	73,654	72,178	71,221

Source: Authors calculations



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