

# VIRGINIA'S SHIFTING DEMOGRAPHICS AND THE FUTURE COMPETITIVENESS OF THE COMMONWEALTH



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# Virginia's Shifting Demographics and the Future Competitiveness of the Commonwealth

## Abstract

Virginia's rapid population growth over the past three decades has been uneven, creating demographic winners and losers, and masks several demographic headwinds that will constrain future growth and competitiveness if left unaddressed, including slowing rates of total and foreign-born population growth, white population decline, deaths of despair, and declining labor force participation among prime working age males and females in the state. A Whole Community Health Approach—strategically addressing the social determinants of health at the distressed community level—and advocacy for family- and immigrant-friendly workforce policies, procedures, and practices are required to properly address the labor needs of newly recruited businesses and ensure the success of Governor Youngkin's Compete to Win Comprehensive Economic Development Plan.

## Introduction

Over the past five decades a profound geographical redistribution of the U.S. population has been underway (Johnson and Parnell, 2019; Chamie, 2021). After capturing only about one-third of net national population growth in every decade between 1910 and 1970, the South has

captured over half of net population growth in each of the past five decades—1970-2020. Over this period, the South's emergence as the nation's primary growth magnet has been largely driven by net domestic migration from the other three regions of the country—the Northeast, the Midwest, and the West—and from international migration, that is, movers from abroad (Frey, 2022; Johnson, Parnell, & Bonds, 2023).

Census Bureau population estimates for the past two years—2020-2022—indicate that this redistribution trend continued as we entered the third decade of this millennium—albeit with a sharp decline in international migration during the crisis phase of COVID-19 pandemic. However, with the reopening of the U.S. to international travel following declines during the COVID shutdown in late 2021, the most recent Census estimates reveal a resurgence of international migration to the U.S. generally—and to the South in particular (Frey, 2023).

In prior research, we have documented how the South's emergence as the nation's primary migration destination has transformed the geo-demographics of North Carolina (Johnson, Parnell, & Bonds, 2022; Johnson, 2020; Johnson, 2021b; Johnson & Bonds, 2022; Johnson, Bonds, & Parnell, 2022). In this paper, we undertake a similar analysis for

Virginia, focusing specifically on the nature, geographic scope, and magnitude of demographic change across the state’s 95 counties and 38 independent cities. For the purposes of this study, we rely primarily on data from the U.S. Census Bureau’s 2010 and 2020 Decennial Censuses, American Community Survey for the inter-census years between 2010 and 2020, and estimates of population change and the components of change for the period April 1, 2020 to July 1, 2022. The post-2020 Census population estimates cover much of the period when the nation was shut down due to the COVID-19 pandemic.

As essential background and context, we begin our analysis with a brief overview of the South’s emergence as the regional center of population growth in our nation. Next, we shift our attention to the Commonwealth of Virginia. We highlight recent aggregate trends in population change, the drivers of observed trends, and the consequential shifts in the race/ethnic and age composition of the state’s population. We then undertake a detailed accounting of the demographic winners and losers among the state’s counties and independent cities, using the Balance of Population Change framework to guide our analysis. We conclude by assessing the implications of the disruptive demographic trends that have transformed Virginia’s population and which, if left unaddressed, will affect the state’s competitiveness in the years ahead.

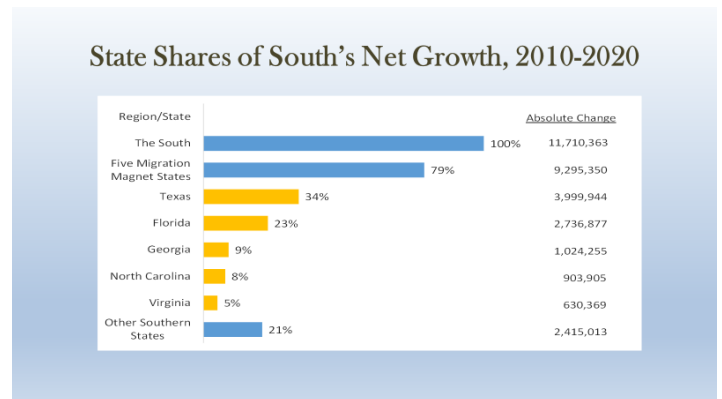
## The South Rises—Again

Over the past half century, the influx of newcomers has dramatically changed the composition of the South’s population, reversing the net out migration of Blacks prior to the 1970s and attracting a far more diverse population of both native-born and foreign-born newcomers from across all ages, including a significant influx of retirees. Collectively—and emblematic of the diversity that has existed in the net migration streams, people of color—Asians, Blacks, Hispanics, Native Hawaiians and Pacific

Islanders, Native Americans, and mixed-race individuals—have driven the South’s net population growth over the past several decades, transforming the region’s workforce, workplaces, and consumer markets as well as other social, economic, and political institutions, including neighborhoods and communities, in the process (Johnson & Parnell, 2019; Johnson, Parnell, & Bonds, 2023).

However, the South’s migration-induced population change over the past several decades has not been evenly distributed throughout the region, creating demographic winners and losers. In fact, the region’s net growth between 2010 and 2020 (11.7 million), as Figure 1 shows, was highly concentrated in five states: Texas and Florida captured the largest shares of net growth followed by Georgia, North Carolina, and Virginia, which captured the third, fourth, and fifth largest shares, respectively. Roughly three quarters of the region’s net growth was concentrated in these five states. The remaining 11 southern states plus the District of Columbia captured the balance (21%) (Johnson, Parnell, & Bonds, 2023).

Figure 1



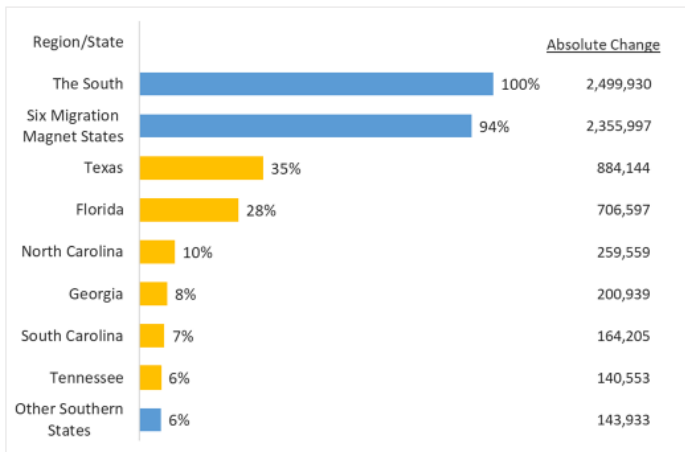
Source: 2010 Census & 2020 Census

Reflecting pandemic refugee migration to the region during COVID (Johnson, 2021a), the list of southern migration magnet states expanded between 2020 and 2022, as Figure 2 shows. South Carolina and Tennessee surpassed Virginia

and joined Texas, Florida, Georgia, and North Carolina as the primary destinations for southern transplants. These six states captured 94 percent of the South’s net population growth between April 1, 2020 and July 1, 2022. The other ten southern states—Alabama, Arkansas, Delaware, Kentucky, Louisiana, Maryland, Mississippi, Oklahoma, Virginia, and West Virginia—and the District of Columbia captured the remaining six percent of net growth.

Figure 2

### State Shares of South’s Net Growth, April 1, 2020 to July 1, 2022



Source: U.S. Census Bureau, Population Division, December 2022.

## Virginia’s Shifting Demography

Despite falling out of the South’s top migration destinations in the most recent Census Bureau annual population estimates (i.e., during the pandemic), Virginia’s population has increased by 2.6 million or 42 percent since 1990. The state’s rate of population growth in each of the past three decades (1990-2020) and during the first two years of the current decade (2020-2022), as Figure 3 shows, consistently outpaced the nation’s population growth rate. Notably, however, Virginia’s rate of population growth consistently lagged the South’s overall population growth

rate during this period—an indicator that the state was not as popular for international and domestic transplants as other southern states such as Texas, Florida, Georgia, and North Carolina, as well as more recently South Carolina and Tennessee (Johnson, Parnell, & Bonds, 2023).

Figure 3: Population Growth Trends for the U.S., the South, and Virginia, 1990-2022

1990-2000

Area	Percent Change	Absolute Change
United States	13.1	32,712,013
South	17.3	14,790,890
Virginia	14.3	892,291

2000-2010

Area	Percent Change	Absolute Change
United States	9.7	27,323,632
South	14.3	14,318,924
Virginia	12.9	918,187

2010-2020

Area	Percent Change	Absolute Change
United States	7.3	22,703,982
South	10.2	11,710,518
Virginia	7.6	608,040

2020-2022

Area	Percent Change	Absolute Change
United States	0.5	1,838,037
South	1.9	2,449,930
Virginia	0.6	51,735

1990-2022

Area	Percent Change	Absolute Change
United States	34.0	84,577,684
South	50.6	43,270,262
Virginia	42.1	2,574,422

Source: <https://www.macrotrends.net/states/virginia/population>; Historical Population Change Data (1910-2020) (census.gov).

## The Geography of Growth

Paralleling the region-wide trend, Virginia’s population growth has not been evenly distributed throughout the state (Yancey, 2022, 2023). Between 2010 and 2019, for example, the bulk of the state’s net growth (534,470) was highly concentrated in 14 jurisdictions—nine counties and five independent cities. Cumulatively, as Figure 4 shows, two counties captured one-third of the growth, four counties captured one-half, five counties and two cities captured two-thirds, six counties and four cities captured three quarters, and nine counties and five independent cities captured fully 84 percent of Virginia’s net growth between 2010 and 2019.

Figure 4: Virginia Growth Poles, 2010-2019

Jurisdiction	Absolute Population Change	Percent of Total Change	Cumulative Percent of Change
Loudoun County	101,990	19%	
Prince William County	68,526	13%	32%
Fairfax County	65,829	12%	
Chesterfield County	36,562	7%	51%
Arlington City	29,146	5%	
Richmond City	26,061	5%	
Henrico County	24,062	4%	65%
Stafford County	23,898	4%	
Chesapeake City	22,524	4%	
Alexandria City	19,430	3%	76%
Spotsylvania County	13,762	2%	
Virginia Beach City	12,071	2%	
Frederick County	11,044	2%	
Albemarle County	10,332	2%	84%

Source: U.S. Census Bureau, 2010 Census and 2019 American Community Survey

Adding more geographic specificity to this pattern of concentrated growth, these jurisdictions are all components of Census Bureau-defined metropolitan areas in Virginia (see Figure 5). Accounting for 61 percent of net growth (328,554), seven of the jurisdictions are components of the Washington metro area: Loudoun County (109,190), Prince William County (68,526), Fairfax County (65,829), Stafford County (23,062), Spotsylvania

County (13,762), Arlington County (29,146), and Alexandria City (19,430). Capturing 12 percent of net growth (62,623), two of the jurisdictions are components of the Richmond MSA: Chesterfield County (36,562) and Richmond City (26,061). Two of the jurisdictions—Chesapeake City (22,524) and Virginia Beach (12,074)—are components of the Hampton Roads MSA. Together they captured six percent of the net growth (34,598). And the remaining two jurisdictions are components of the Winchester MSA on the western border of the Washington MSA—Frederick County (11,044)—and the Charlottesville MSA—Albemarle County (10,332), with each capturing two percent of the state’s net growth between 2010 and 2019.

Figure 5: Area of Concentrated Population Growth, State of Virginia, 2010-2019

Area /Jurisdiction	Percent of Total	Absolute Number
Virginia	100	534,470
Washington, DC MSA	61	328,554
Richmond MSA	12	62,623
Hampton Roads	6	34,598
Winchester MSA	2	11,044
Charlottesville MSA	2	10,332

Source: U.S. Census Bureau, 2010 Census and 2019 American Community Survey

Virginia’s population continued to grow between 2020 and 2022 (52,235). As previously noted, the state’s population grew at a faster rate (0.6%) than the nation’s rate of growth (0.5%) but much slower than the South’s rate of growth (1.9%). Data on where growth occurred are not yet available for this entire period. However, population change statistics are available at the county and independent city levels for the period April 1, 2020 – July 1, 2021, covering the first fifteen months of the pandemic (U.S. Census Bureau, Population Division, 2021, 2022).

During this period, Virginia’s net population growth was concentrated in the Washington metro area and in the Hampton Roads MSA (Table 1). In the Washington metro, growth occurred in four jurisdictions: Loudoun County

(6,633), Prince William County (2,268), Spotsylvania County (3,664), and Stafford County (3,950). However, this growth was offset by significant population losses in other jurisdictions in the metro area, including Fairfax County (-10,589), Arlington County (-5,678), and Alexandria City (-1,240), resulting in overall population loss in the Washington MSA during the first fifteen months of the

pandemic. The pattern was similar in the Hamptons Road Area. Significant population gains in Suffolk County (1,870), Chesapeake City (1,847), and James City County (1,628) which were offset by significant population losses in three of the metro areas' independent cities: Norfolk (-2,916), Virginia Beach (-1,798), and Newport News (-1,660).

**Table 1: Population Change in Selected Virginia Jurisdictions, April 1, 2020 – July 1, 2021**

Washington MSA	Absolute Change	Hampton Roads MSA	Absolute Change
Loudoun County	+6,633	Suffolk County	+1,870
Stafford County	+3,950	Chesapeake City	+1,847
Spotsylvania County	+3,664	James City County	+1,628
Prince William County	+2,268	Norfolk City	-2,916
Fairfax County	-10,589	Virginia Beach City	-1,798
Arlington County	-5,678	Newport News City	-1,660
Alexandria City	-1,240		
Net Metro Population Change	-992	Net Metro Population Change	-1,029

Source: U.S. Census Bureau, Population Division, December 2021.

Other notable losses, not shown in Table 1, were in the Blacksburg-Christiansburg MSA (Montgomery County -1,248) and in the Roanoke MSA (Roanoke County -1,146) during the first 15 months of the pandemic.

## Components of Growth

Virginia's growth has been driven by both net natural change—an excess of births over deaths—and net migration—more people moving in than moving out of the state (Yancey, 2022). Between 2010 and 2019, as Table 2 shows, natural population growth accounted for two thirds (343,322) and net migration accounted for the remaining one third (190,438) of total population change (534,470).

**Table 2: Components of Population Change, State of Virginia, 2010-2022**

Time Period	Total Population Change	Natural Population Change	Net Migration	International Migration	Domestic Migration
2010-2019	534,470	343,322	190,438	261,541	-71,603
2020-2022	52,470	27,930	22,987	52,762	-29,775

Source: U.S. Census Bureau, Population Division, December 2022.

Natural population growth was highly concentrated within the state, as Table 3 shows. Cumulatively, a little over one quarter of it occurred in a single jurisdiction, one-half in three jurisdictions, roughly two-thirds in six jurisdictions, and three-quarters in eight jurisdictions. Paralleling the pattern of overall growth, these natural population growth poles were all located in the state's metropolitan areas in northern and southeastern Virginia: 61 percent in the Washington Metro (Alexandria City and Fairfax, Prince William, Loudon, and Arlington counties), 11 percent in the Hampton Roads Area (Virginia Beach City and Newport News City), and four percent in the Richmond metro (Chesterfield County).

**Table 3: Natural Population Change, State of Virginia, 2010-2019 (N=343,322)**

Jurisdiction	Absolute Change	Percent of Total	Cumulative Percent
Fairfax County	91,341	27	27
Prince William County	44,415	13	40
Loudoun County	35,515	10	50
Virginia Beach City	27,138	8	58
Arlington County	20,011	6	64
Alexandria City	18,455	5	69
Chesterfield County	14,029	4	73
Newport News City	11,905	3	76

Source: U.S. Census Bureau, 2010 Census and 2019 American Community Survey



Between 2020 and 2022, births continued to exceed deaths in Virginia (27,930). However, the share of total growth attributable to net natural population change was smaller between 2020 and 2022 (53%) than it was between 2010 and 2019 (64%)—most likely reflecting the pandemic’s negative impact on fertility (Tavernise, 2021; Rogers, 2021; Kearney & Levine, 2021a,b).

Regarding migration--the other driver of population change—movers from abroad (261,154) drove Virginia’s net migration-induced growth between 2010 and 2019. However, the impact of international migration was diminished by the fact that more domestic migrants left than moved into the state (-71,103), resulting in an overall smaller absolute population gain due to net migration during this period (190,438).

Most of Virginia’s net migration induced growth occurred in a geographically broader set of jurisdictions (15) than did its growth due to net natural population change, that is, excess births over deaths (8 jurisdictions). The top 15 destinations for movers from abroad are depicted in Figure 6.

Figure 6: Top 15 Destinations of Movers from Abroad, 2010-2019

County/Independent City	Absolute Number	Percent of Total	Cumulative Percent
Fairfax County	81,327	31.1%	52%
Prince William County	19,882	7.6%	
Loudoun County	18,124	6.9%	
Arlington County	17,445	6.7%	
Henrico County	13,661	5.2%	
Virginia Beach City	11,175	4.3%	69%
Norfolk City	8,371	3.2%	
Richmond City	5,657	2.2%	
Chesterfield County	5,128	2.0%	77%
Montgomery County	4,760	1.8%	
Roanoke City	3,813	1.5%	
Harrisonburg City	3,552	1.3%	
Charlottesville City	3,159	1.2%	
Lynchburg City	2,624	1.0%	
Albemarle County	2,609	0.9%	

Source: U.S. Census Bureau, Population Division, December, 2020.

Four of these jurisdictions captured slightly over half of the international migration flow into the state (52%), nine captured more than two thirds (69%), and the top fifteen combined captured more than three quarters of international migration (77%).

Emblematic of international migration’s pivotal role in the overall pattern of absolute population growth in the state, one half of the movers from abroad settled in the Washington MSA. The Richmond MSA and the Hampton Roads MSA captured nine percent and seven percent of international migration, respectively. The Charlottesville and Blacksburg MSAs each captured two percent of the movers from abroad. And the Roanoke, Harrisonburg, and Lynchburg MSAs each captured one percent of international migration (Figure 7). Among other attractive features, these are all centers of higher education that attract international talent.

Figure 7: Areas of International Migrant Concentrations, State of Virginia, 2010-2019

Area / Jurisdiction	Percent of Total	Absolute Number
Virginia	100	261,541
Washington MSA	52	136,778
Richmond MSA	9	24,446
Hampton Roads	7	19,546
Charlottesville MSA	2	5,768
Blacksburg MSA	2	4,760
Roanoke MSA	1	3,863
Harrisonburg MSA	1	3,552
Lynchburg MSA	1	2,674

Source: U.S. Census Bureau, Population Division, December 2020.

International migration continued to play a major role in Virginia’s population dynamics between 2020 and 2022 (Frey, 2023). Most of the movement from abroad during this period occurred after COVID infections, hospitalizations, and death began to decline and the ban on international travel and visitors was lifted. But much of the movement from abroad (52,762) was offset by a significant net outflow of domestic migrants (-29,775),

which reduced the impact of net migration (22,987) on the state’s overall net growth (52,470) during this period. In the absence of international migration, the state’s net growth would have been miniscule.

## Compositional Shifts

Paralleling national trends (Johnson & Parnell, 2019), two colorful demographic processes undergird the foregoing shifts in the size and geographic distribution of Virginia’s population. The first is the “browning” of the state’s population, which refers to how both native- and foreign-born people of color are driving growth and, in the process, changing both the composition and complexion of the state’s inhabitants (Johnson, Farrell, & Guinn, 1997; Johnson & Parnell, 2019). The second is the “greying” of the state’s population (Johnson & Parnell, 2019), which refers for the most part to the aging of Virginia’s native-born population.

Figure 8 highlights shifts in the race and ethnic composition of Virginia’s population between 2010 and 2020. Paralleling a historic first in our nation, where the U.S. white population declined by -5.1% or -2.6 million (Haroun & Hoff, 2021), Virginia’s white population declined by -2.5% or -128,087 during the last decade. All of the state’s net growth (630,369) was driven by people of color. Among the various non-white race/ethnic groups, Hispanics had the largest absolute increase (276,924) followed by people of two or more races (223,241), Asians (174,314), and Blacks (54,386).

Figure 8: Absolute and Percent Population Change by Race/Ethnicity, State of Virginia, 2010-2020

Absolute Change	Percent Change	Race/Ethnicity	Percent Change	Absolute Change
		All	7.9%	603,369
-128,087	-2.5%	White		
		Black	3.6%	54,386
-1,599	-7.7%	AI/AN		
		Asian	40.0%	174,314
		NH/PI	22.4%	1,134
		Mixed Race	122.9%	223,241
		Hispanic	43.8%	276,924

Source: 2010 Census and 2020 Census.

As Figure 9 shows, the “browning” of Virginia’s population continued between April 1, 2020 and July 1, 2021. Absolute population gains among Hispanics (20,733), Asians (9,179), people of two or more races (7,901), and Blacks (4,227) offset continued white population decline (-32,126). Together, these four groups of people of color were largely responsible for Virginia’s modest total growth (10,881) during the first fifteen months of the pandemic.

Figure 9: Absolute and Percent Population Change by Race/Ethnicity, State of Virginia, April 1, 2020 – July 1, 2021

Absolute Change	Percent Change	Race/Ethnicity	Percent Change	Absolute Change <sup>1</sup>
		All	0.1%	10,881
-32,126	-0.6%	White		
		Black	0.2%	4,227
		AI/AN	1.3%	296
		Asian	1.5%	9,179
		NH/PI	1.0%	65
		Mixed Race	3.2%	7,901
		Hispanic	2.4%	20,733

Source: U.S. Census, Population Division, June 2022.

At the same time Virginia’s population is browning, it also is getting older or greying as a function of declining fertility, the aging out of the post-WWII boomer generation (those born between 1946 and 1964), and extended longevity

among pre-boomers (those born in 1945 or earlier). The effects of these forces are evident in the data in Table 4, which disaggregates population change by age in Virginia between 2010 and 2021.

**Table 4: Population Change by Age, State of Virginia, 2010 to 2021**

Age	2021 Population	Absolute Population Change 2010-2021	Percent Population 2010-2021
Total	8,001,024	641,250	8.0%
0-17	1,853,677	28,141	1.5%
18-24	802,099	15,685	2.0%
25-34	1,090,419	66,368	6.1%
35-44	1,108,928	69,502	6.3%
45-54	1,214,000	-134,070	-11.0%
55-64	954,964	166,081	17.4%
65-74	549,804	306,099	55.7%
75+	427,133	123,444	28.9%

Source: 2010 Census and 2021 American Community Survey

Virginia's Boomer population was between age 57 and 75 in 2021. Pre-boomers were 76 or older. These two age groups are disproportionately white—nationally and in

Virginia. The non-Hispanic white population in Virginia accounts for 59 percent of the state's population, but they account for 73 percent of those 65 and older.

Over the past decade or so, as Table 4 shows, Boomers and Pre-boomers were the state's most rapidly growing age groups, epitomizing what is popularly referred to as the silver tsunami—the large wave of people who are aging out of the workforce (Johnson & Parnell, 2019). Due to declining fertility and premature deaths of despair among prime working age adults, younger age cohorts either declined (45-54) or grew much more slowly (44 and younger) than the Boomer and Pre-boomer cohorts, creating in the process an aging workforce and an impending labor shortage for the state moving forward (Davidson, 2023; Wu, 2022).

Table 5 illustrates most vividly Virginia's current and future labor challenges. While the 65+ population grew by 3.3 percent, the working age population (18-64) grew much more slowly (0.3%) and the next generation of talent (<18) that is supposed to propel the state forward in a hypercompetitive global economy actually declined (-0.9%) during the first fifteen months of the pandemic. The decline in the under 18 population reflects the fact that U.S. fertility rates have been below the replacement level (2.1) since 2008 (Saenz & Johnson, 2016; Tavernise, 2018; Tavernise, et al., 2021).

**Table 5: Virginia Population Change by Age, April 1, 2020 – July 1, 2021**

Age	July 1, 2021 Population	Absolute Population Change April 1, 2020 – July 1, 2021	Percent Population Change April 1, 2020 – July 1, 2021
All	8,642,274	10,881	0.1
<18	1,884,826	-17,598	-0.9
18-64	5,350,796	13,917	0.3
64+	1,406,652	44,562	3.3

Source: U.S. Census Bureau, Population Division, June 2022

## Demographic Winners & Losers

By highlighting where growth has occurred and who is driving growth, the foregoing analyses tell only part of the story of how Virginia’s population has changed and how those changes have impacted—and will continue to impact—the entire state. Below we offer broader insights into the statewide effects of recent population shifts.

Our insights are derived primarily from applying the Balance of Population Change equation to census data for the state of Virginia. Descriptively, the equation stipulates that for any geographic area over a specified timeframe:

$$\begin{aligned}
 & \text{POPULATION CHANGE} = \text{IN-FLOWS MINUS OUT-FLOWS} \\
 & \text{WHERE} \\
 & \qquad \text{IN-FLOWS} = [\text{BIRTHS} + \text{IN-MIGRATION}] \\
 & \text{AND} \\
 & \qquad \text{OUT-FLOWS} = [\text{DEATHS} + \text{OUT-MIGRATION}]
 \end{aligned}$$

Using this equation, we classified the demographic experiences of Virginia’s counties and independent cities into a six-fold typology based on the dynamic interactions among these measures of natural population change (births and deaths) and net migration (in- and out-migration). The typology along with definitions of each of the six types of demographic experiences appear in Table 6.

Table 6: Typology of Demographic Experiences

Demographic Experience	Drivers
Balanced Growth	Births exceed deaths and in-migration exceeds out-migration.
Natural Growth	Out-migration exceeds in-migration but this population loss is offset by an excess of births over deaths.
Migration Magnet	Deaths exceed births but population loss is averted because in-migration exceeds out-migration
Dying	Deaths exceed births and out-migration exceeds in-migration, resulting in population loss.
Biologically Declining	In-migration exceeds out-migration but this net migration is not substantial enough to offset an excess of deaths over births.
Emptying Out	Births exceed deaths but out-migration exceeds in-migration, resulting in net population loss.

Source: authors.

Suffice it to state here that three of the entries reflect sources of population growth experiences—balanced growth, natural growth, and migration magnet—and the other three reflect sources of population decline experiences—biologically declining, emptying out, and dying. The results of applying this equation to Virginia components of demographic change data for two time periods—2010-2019 and April 1, 2020 to July 1, 2021--appear in Table 7 and Figure 10.

Table 7: Demographic Change Typology, Virginia Counties & Independent Cities, 2010-2019 & 2020-2021

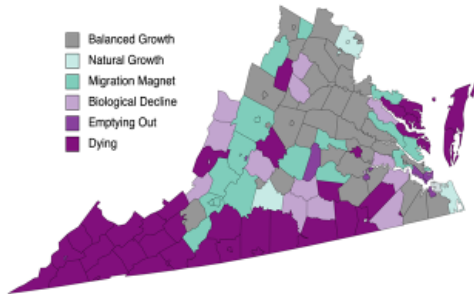
Demographic Experience	Number of Jurisdictions 2010-2019	Percent of Total	Number of Jurisdictions April 1, 2020- July 1, 2021	Percent of Total
Balanced Growth	49	36%	15	11%
Natural Growth	5	4%	4	3%
Migration Magnets	19	14%	49	37%
Emptying Out	8	6%	15	11%
Biologically Declining	16	12%	27	21%
Dying	39	29%	20	15%

Source: authors.

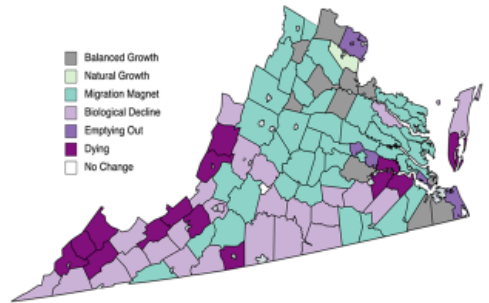
Figure 10

## Virginia Demographic Change Typology

2010 - 2019



April 1, 2020 – July 1, 2021



Source: compiled by authors.

At the most general level, slightly over half of Virginia jurisdictions experienced population growth (54%) and therefore were demographic winners between 2010 and 2019. Slightly under half experienced population decline (46%) making them demographic losers. As Table 7 and Figure 10 show, the mix of demographic forces driving population growth and decline varied markedly across the state.

In absolute numbers, 73 of Virginia’s jurisdictions were among the demographic winners between 2010 and 2019.

- Two thirds of these winners (one-third of all Virginia jurisdictions) experienced balanced growth (492,790), that is, growth driven by both natural population increase (223,753) and net in-migration (269,073).
- One quarter of the winners (roughly 14% of the state’s jurisdictions) were migration magnets (25,716). In these jurisdictions net in-migration (33,325) was sufficient to offset an excess of deaths over births (-7,370).
- And 7 percent of the winners (four percent of Virginia’s jurisdictions) benefited from natural growth (82,727) where an excess of births over deaths (124,866) was sufficient to offset net out-migration (-42,757).

Sixty-three of Virginia’s jurisdictions were among the demographic losers between 2010 and 2019.

- Nearly two-thirds of the losers (29% of all Virginia jurisdictions), according to our demographic experience typology, were literally dying demographically (-250,253). In these jurisdictions, a lethal demographic cocktail was at work: population decline was driven by both natural loss (more deaths than births [-23,924]) and net-outmigration (more people moving out than moving in [-226,329]).
- One quarter of the demographic losers (12% of all Virginia jurisdictions) suffered biological decline (-5,731)—meaning net in-migration (5,120) was not sufficient to offset more deaths than births (-10,009).
- The remaining eight demographic losers (6% of all jurisdictions) emptied out during the last decade. That is, net outmigration (-29,746) overshadowed net natural population gain—more births than deaths (22,488), resulting in overall population loss (-7,217).

Nationally—and in the state of Virginia—COVID-19 had a profound impact on population mobility behavior, triggering a near shutdown in international migration and heightened migration within the U.S.—mostly from large, densely settled urban centers to less densely settled suburban, exurban, and rural communities mainly in the South but also in New England and the Mountain West states (Forgie, 2021; Johnson, 2021a; Thompson, 2020; Whitaker, 2021; Yancey, 2022; O’Donnell & Belmonte, 2022; Stoker, et al., 2021; Ross, 2020; McIntosh, et al., 2021). COVID-19’s impact on the state of Virginia is evident in the shifting distribution of jurisdictions across our demographic change typology during the first 15 months of the pandemic compared to the distribution in the preceding decade (Yancey, 2022). Two major changes stand out (see Table 7 and Figure 10):

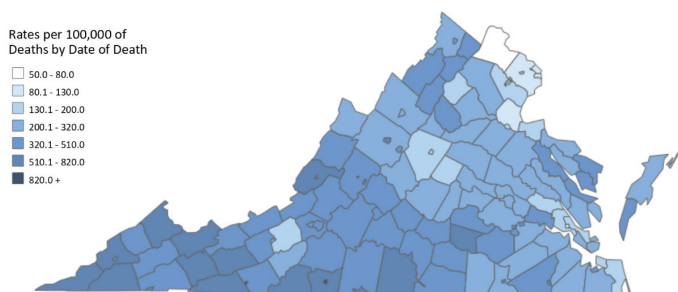
- A sharp decrease in the number of jurisdictions that were experiencing balanced growth and in the number that were dying demographically; and
- A marked increase in the number of jurisdictions that were emptying out, experiencing biological decline, and emerging as migration magnets during the COVID-19 crisis.

The decrease in balanced growth and the increase in emptying out counties and cities most likely reflect the heightened propensity for some Virginians to leave densely settled urban centers during the pandemic (Yancey, 2022). And many of Virginia’s jurisdictions that were dying demographically in the preceding decade became attractive destinations (migration magnets) for pandemic refugees fleeing major urban centers in not only Virginia (especially northern Virginia) but other states as well (Johnson, 2020). Sparsely settled Virginia communities endowed with physical and cultural amenities, such as Smith Mountain Lake in Franklin County (Cox, 2022), were especially attractive to pandemic refugees. While some of Virginia’s pandemic refugees fleeing densely settled

communities moved elsewhere within the state, most, it should be noted, headed further South to states like North Carolina, South Carolina, Tennessee, Georgia, and Florida—accelerating a trend that was underway prior to the pandemic.<sup>1</sup>

The sharp increase in the number of Virginia jurisdictions experiencing biological population decline during the first fifteen months of the pandemic reflects in part the heavy toll of COVID related deaths in the state (Sabo & Johnson, 2022). The Virginia Health Department reports 19,357 confirmed deaths and 4,127 probable deaths due to COVID-19 between April 2020 and February 2023. As Figure 11 shows, COVID death rates were highest in the far western, predominantly rural parts of the state with aging more vulnerable populations and lower vaccination rates.

**Figure 11: Virginia COVID-19 Death Rates by County and Independent Cities, August 2020 – February 2023**

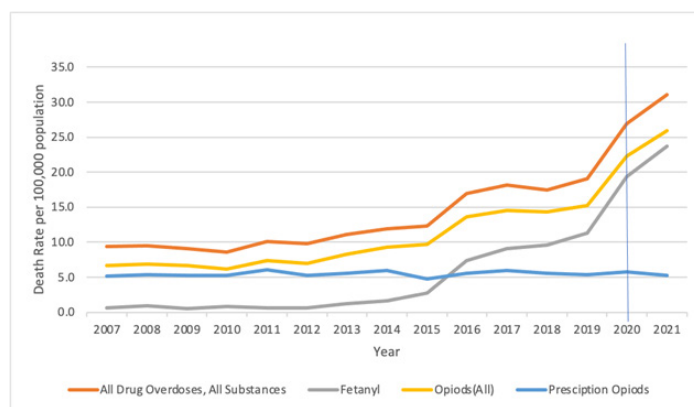


Source: Virginia Department of Health

Further contributing to accelerated biological decline, during the COVID-19 pandemic, there was a sharp uptick in overdose deaths caused by the misuse or abuse of chemical substances, including all types of opioids, prescription opioids, and especially illegal substances like fentanyl, accelerating a trend that started in the late 1990s and which has continued over the past two decades

(Karma, 2020; Jamison, 2021; Case & Deaton, 2020; Bernstein & Achenbach, 2021). The trend in Virginia drug overdose deaths since 2007 appears in Figure 12.

**Figure 12: Deaths of Despair, State of Virginia, 2007-2021**



Source: Virginia Department of Health

Between 2007 and 2021, according to the Virginia Department of Health, there were 18,970 drug overdose deaths in the state. Thirty-seven percent of the deaths were caused by the misuse or abuse of prescription opioids and 41 percent were caused by lethal doses of the illegal drug fentanyl. Moreover, close half of all fentanyl overdose deaths occurred during the pandemic in 2020 and 2021 when individuals with chemical dependencies were on lockdown and consequently unable to access the critical substance abuse counseling and emergency medical care they needed (Jamison, 2021).

Geographically, as Figure 13 shows, deaths rates due to all drug overdoses, all opioids, and prescription opioids were especially high in the mostly rural western part of the state and in cities like Danville, Norfolk, Salem, Portsmouth, Winchester, Hopewell, Martinsville, Fredericksburg, Petersburg, Roanoke and Richmond in the central and

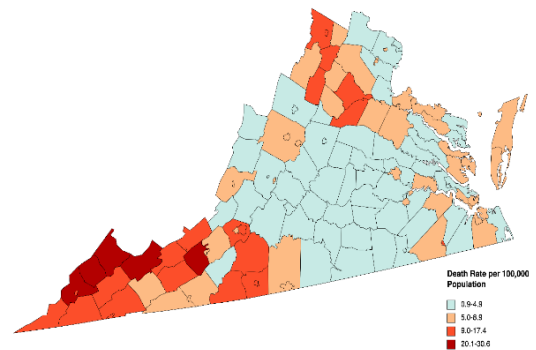
<sup>1</sup> Between 2010 and 2019, for example, 15 counties and cities in Virginia were major net exporters of domestic migrants (-247,244): Fairfax County (-107,478); Virginia Beach City (-26,194); Norfolk City (-23,585); Newport News City (-18,497); Alexandria City (-16,658); Hampton City (-10,318); Arlington County (-8,530); Portsmouth City (-6,179); Roanoke City (-3,471); Wise County (-3,286); Tazewell County (-2,914); Montgomery County (-2,891); Petersburg City (-2,352); Fairfax City (-2,227); and Harrisonburg City (-2,1124).



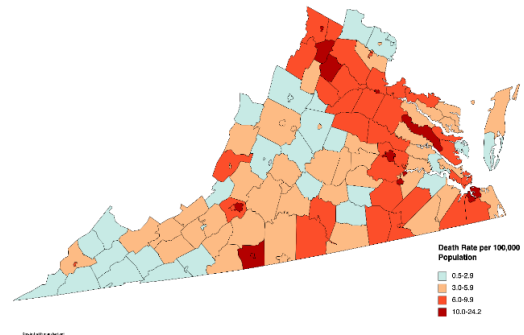
eastern part of the state. More alarming, however, is the geographical pattern of deaths due to fentanyl drug overdoses which tend to be highly concentrated in the major population centers in the eastern part of the state. Making matters worse, according to data compiled by the Virginia Health Department, the victims of these drug overdose deaths—across all causes—were disproportionately prime working age males between the ages of 25 and 54—a crucial demographic in the state’s workforce.

Figure 13: Death Rates Due to Drug Overdoses, 2007-2021

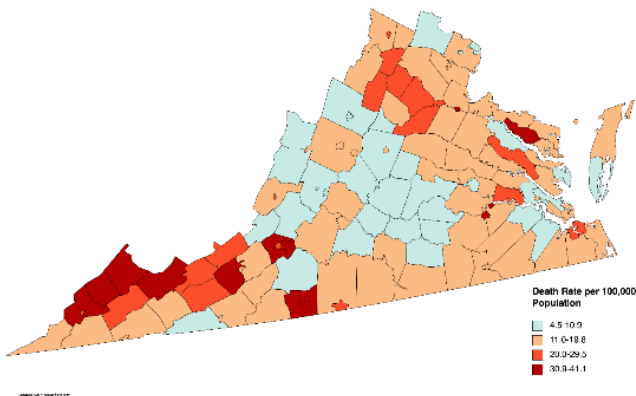
### Prescription Opioids



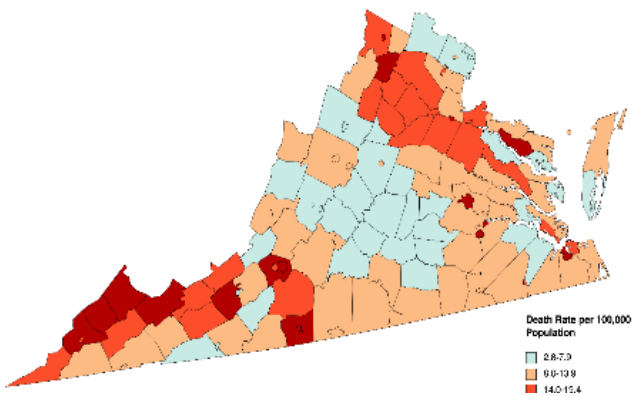
### Fentanyl



### All Drugs



### All Opioids



Source: Virginia Health Department



## Summary, Discussion, and Recommendations

Over the past three decades, Virginia’s population has grown rapidly—at least in absolute terms. But growth has been uneven, concentrated primarily in jurisdictions that make up the state’s metropolitan areas in northern, central, and southeastern Virginia (although some of these areas lost population during the pandemic). A large swath of mainly central and western Virginia has been left behind in the state’s population boom. Places not cashing in on the state’s demographic dividend are mostly rural counties and small independent cities with deteriorating infrastructure, a dearth of employment opportunities that pay a living wage, and aging populations with health challenges and poor access to health care as well as other basic services—places where COVID-19 and premature deaths caused by chemical dependency, alcohol abuse, and other critical life events, including suicide, have exacted a heavy toll.

The divide between the demographic “haves” and the demographic “have nots” raises a serious question as to whether the state will have the required human capital to meet the labor demands of recently recruited businesses and ensure the success of Governor Glenn Youngkin’s Compete to Win Comprehensive Economic Development Plan (Commonwealth of Virginia, 2022; Greater Richmond Partnership, 2022; Ashford, 2022). Figures 14 and 15 illustrate vividly how recent demographic shifts and the COVID pandemic have profoundly impacted labor force participation among both males and females in the state (Davidson, 2023; Wu, 2022).

Figure 14: Absolute & Percent Change in Population and Labor Force by Age, Virginia Males, 2015-2021

Absolute Population Change	Percent Change	Age	Percent Change	Absolute Change in Labor Force Participation
3,845	1.7%	16-19	16.1%	13,596
4,307	3.4%	20&21	2.8%	2,363
-12,842	-7.2%	22-24	-5.2%	-7,509
-7,467	-2.5%	25-29	-2.4%	-6,145
5,689	1.9%	30-34	1.3%	3,333
40,907	7.5%	35-44	6.9%	34,663
-36,245	-6.3%	45-54	-5.9%	-29,458
4,180	1.5%	55-59	3.5%	7,581
9,661	9.5%	60&61	12.6%	9,252
24,560	18.2%	62-64	26.4%	21,308
27,396	14.1%	65-69	16.5%	13,006
43,701	32.1%	70-74	23.1%	7,376
33,997	17.5%	75+	25.2%	4,784

Source: American Community Survey 2015 and 2021.

Figure 15: Absolute & Percent Change in Population and Labor Force by Age, Virginia Females, 2015-2021

Absolute Population Change	Percent Change	Age	Percent Change	Absolute Change in Labor Force Participation
15,429	7.2%	16-19	4.7%	3,994
-5,374	-4.6%	20&21	-4.8%	-3,864
-3,594	-2.1%	22-24	-3.1%	-4,258
-17,076	-5.8%	25-29	-5.6%	-13,254
2,836	1.0%	30-34	1.3%	3,001
41,621	7.6%	35-44	9.0%	39,104
-53,263	-8.9%	45-54	-6.4%	-29,513
-10,501	-3.6%	55-59	-0.1%	-197
9,656	8.6%	60&61	12.9%	8,841
23,760	16.3%	62-64	23.3%	16,693
25,046	11.3%	65-69	16.1%	10,727
51,597	33.0%	70-74	37.0%	9,054
37,299	13.1%	75+	21.7%	2,917

Source: American Community Survey 2015 and 2021.

Due to significant population declines, the state suffered corresponding major declines in labor force participation among males between the ages of 22 and 24, 25 and 29, and 45 and 54 between 2015 and 2021. Among females, not surprisingly given the disparate impact of the pandemic on women (Johnson, Parnell, & Bonds, 2021), the decline in labor force participation spanned a broader age demographic, including women between the ages of 20 and 21, 22 and 24, 25 and 29, 45 and 54, and 55 and 59. Given that talent development and retention is the new “it” in competitive economies, such declines have far ranging implications for the future economic wellbeing of the state and its citizenry.

Further complicating matters, the state’s strong absolute population growth over the past three decades masks several major demographic headwinds that state and local leaders must address to maintain and enhance Virginia’s competitiveness moving forward. Three of the demographic headwinds are addressed here which, as we and others have noted elsewhere (Bahrapour, et al., 2021; Srikanth, 2021; Rogers, 2021; Sabo & Johnson, 2022; Jordan, 2021; Karma, 2020; Kearney & Levine, 2021a; Johnson, Bonds, & Parnell, 2021; Tavernise & Gebeloff, 2021), are national trends that manifest at other geographic scales, including at the state level in Virginia (see Figure 16).

**Figure 16: Virginia’s Gale Force Demographic Wind Gusts**

Time Period	Percent Change	Absolute Change
<b>Total Population</b>		
1990-2000	14.3%	892,291
2000-2010	12.9%	918,187
2010-2020	7.6%	608,040
2020-2022	0.6%	51,735
<b>Foreign Born Population</b>		
1990-2000	83.0%	258,470
2000-2010	58.0%	333,031
2010-2020	18.0%	165,179
2016-2020*	4.0%	46,292
<b>White Population</b>		
1990-2000	6.8%	328,242
2000-2010	7.1%	366,961
2010-2020	-5.4%	-299,363
2020-2021	-0.6%	-32,120

\*Trump Presidency

Source: <https://www.macrotrends.net/states/virginia/population>; Historical Population Change Data (1910-2020) (census.gov).

The first demographic headwind is Virginia’s progressively slowing rate of total population growth. Total growth increased by 14.3 percent in the 1990s, 12.9 percent in the 2000s, and 7.6 percent between 2010 and 2020. Attendant problems associated with the pace of development in state’s major growth centers—rising cost of living and other growth-related negative externalities (increasing congestion, air, water, and noise pollution)—are partly responsible for slowing growth as some residents have voted with their feet by moving to other states (Olivo, 2023; also see footnote #1). Declining fertility also is partly responsible for this progressive slowing of the rate of total growth. U.S. fertility has been below the replacement level since 2008—driven in part by women who delay childbearing for various reasons (usually career-related) reducing in the process the biological clock for safely having a child or multiple offspring; others who age out of the childbearing years before conceiving a child; and still others who consciously choose not to have children—the voluntarily childless (Tavernise, et al, 2021;

Livingston, 2015; Kwon, 2020; Kekkatos, 2019). Declining fertility is largely responsible for the significant number of Virginia jurisdictions experiencing biological decline or literally dying demographically over the past thirty plus years (see Figure 10).

Paralleling and influencing the progressive slowing rate of total growth, the second demographic head wind is Virginia's progressive slowing rate of foreign-born population growth in each of the past three decades—from 83 percent in the 1990s to 53 percent in the 2000s to 18 percent between 2010 and 2020. This ominous trend reflects our failure—as a nation—to develop a sound immigration policy that recognizes the pivotal role that immigrants must play in our economy moving forward giving declining fertility, deaths of despair, and age-related mortality among the native-born U.S. population (Kight, 2023; Johnson, Parnell, & Bonds, 2023; Jordan, 2021; Rogers, 2021; Waldman & Sargent, 2022). Reflecting his strong anti-immigration and anti-immigrant stance, for example, the foreign-born population grew by only 4.5 percent during the Trump presidency (2016-2020) (Johnson & Bonds, 2020). Because immigration is an age selective process—typically younger people immigrate at a higher rate than older people, failing to embrace immigrants indirectly depresses fertility and by extension future population growth.

A third demographic headwind is the decreasing white population. While experiencing modest growth in the 1990s and 2000s, Virginia's white population declined for the first time in history between 2010 and 2020, aligning with a demographic dynamic nationally and in thirty-one other states (Srikanth, 2021; Haroun & Hoff, 2021; Johnson, Parnell, & Bonds, 2023). And the Census Bureau's recently released population estimates for the period 2020-2022 revealed that the white population continued to decline—nationally and in the state of Virginia-- during the pandemic. Again, declining fertility, deaths of despair,

COVID-19 related deaths, and age-related mortality among Virginia's disproportionately white senior population (76%) are largely responsible for white population decline (Rogers, 2021).

Nothing short of a Whole Community Health Approach—strategically addressing the social determinants of health in communities suffering from chronic underinvestment or disinvestment and pursuing future development through a triple bottom line sustainability lens—is likely to successfully address Virginia's demographic and labor force challenges (Johnson & Bonds, 2022a,b; Johnson, Bonds, & Davis, 2022, 2023). Such an approach attacks structural inequities operating at the community or neighborhood level that affect individual and family health and socioeconomic wellbeing, such as: exclusionary zoning, poor housing, deteriorating schools, over concentration of locally unwanted land-uses (and attendant air, water, and noise pollution), food insecurity, structural unemployment, and limited access to quality services, including health care and banking. Combined with advocacy for family- and immigrant-friendly public policies that promote future growth, this approach will go a long way toward ensuring the future viability, cohesiveness, resiliency, and prosperity of Virginia counties and independent cities that heretofore have not benefited from the state's demographic fortunes (Johnson, Parnell, & Bonds, 2023).

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