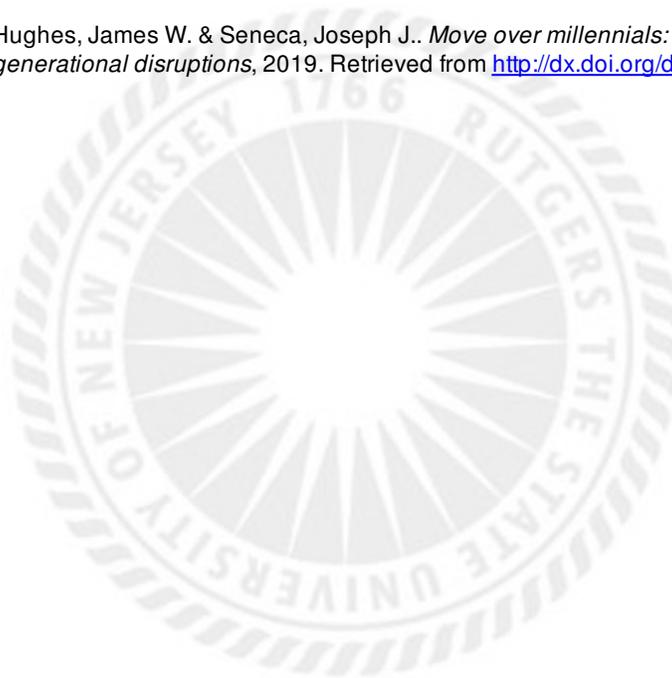


Move over millennials: New Jersey's unfolding generational disruptions

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Move Over Millennials

NEW JERSEY'S UNFOLDING GENERATIONAL DISRUPTIONS

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An Analysis of Economic, Demographic
and Market Trends





The
RUTGERS REGIONAL REPORT
and
T. ALEXANDER POND
—
A Dedication

This year marks the thirtieth anniversary of the inception of the RUTGERS REGIONAL REPORT. With little fanfare, it was created in 1989 under the auspices of T. Alexander Pond, executive vice president and chief academic officer of Rutgers. He envisioned the RUTGERS REGIONAL REPORT as a university instrument by which Rutgers would continually engage and have a key voice in important regional and state policy/planning deliberations. Its mission was to communicate timely information to state, regional, and national thought leaders, legislators, educators, the business community, and the citizenry in a readable and accessible format. Without the intellectual and financial support of Alec Pond, the REPORT would not have thrived for its three-decades'—and counting—existence. A full listing of the more than 100 publications of the REPORT is provided in appendix C of this report.

This fortieth RUTGERS REGIONAL REPORT Issue Paper is thus dedicated to Alec Pond. In 1982, he was appointed executive vice president and chief academic officer by then Rutgers President Edward J. Bloustein. Under the leadership of Bloustein and Pond, Rutgers reached new heights as it was transformed into a world-class research institution. Dr. Pond was particularly effective in shaping state policy to enhance academic research at Rutgers in key scientific areas. With consummate skill he obtained and then leveraged additional state resources to attract and develop outstanding faculty and build first-rate programs. His impeccable leadership and academic judgments were sustained over many years. The Rutgers of today is greatly in his debt, as is the RUTGERS REGIONAL REPORT.

Introduction

The suburban-centric postwar behemoth, aka the baby boom, used to incessantly “rock around the clock”; now it is struggling just to “limp around the block.” Once accustomed to absolute rule in the twentieth century, boomers now find their societal reign diminishing daily. In their stead are the often-maligned (often unfairly) baby-boom offspring—urban-centric millennials, aka Gen Y.¹ The last generation born completely within the twentieth century, millennials now constitute the high-in-demand, next-gen talent base, eagerly courted by corporate America. “Millennials now rule” pervades an economy completely reshaping itself to their desires.

A “passing of the leadership baton” is in full force. This is one consequence of a great age-structure transformation, which is revising organizational charts, redefining the economy, remodeling the workplace, and reprioritizing residential location. To the dismay of many boomers, the Garden State of the twentieth century is slowly but inexorably being dismantled. “Boomer Nation” will soon be no more! Fast forward to the latest generation to enter the demographic scene, aka Gen Alpha. Largely children of millennials, alphas embody the first generational cohort wholly born in the twenty-first century. Barely out of toddlerhood, their workplace impact won’t replicate that of their parents until the 2030s, but marketers have not been caught unaware. Alphas have already been dubbed “screen-agers,” reflecting the observation that even in their cribs, screens of sophisticated digital devices have been snugly nestled in front of them. While their millennial parents comprised the first demographic cohort born in, and shaped by, the digital information-technology age, alphas will ultimately be shaped by relentless advances in

artificial intelligence, the Internet of Things, robotics, and other technologies about to emerge.

These are just three of the six generational waves that are inundating the policy, planning, marketing, and media worlds. The purpose of this report is to fully examine these generations, which constitute just a singular dimension of the many facets of demographic change sweeping across America and New Jersey.² Generations reflect a process of segmentation and differentiation that is intended to help understand large population blocs for a wide range of purposes. They are defined by specific birth periods, serving to disaggregate vast population agglomerations into manageable analytical segments. While the Center for Urban Policy Research at Rutgers University-New Brunswick has been defining and analyzing generations for more than three decades, this report adapts these older protocols to the current definitions of the Pew Research Center, whose depth of work in this domain has become nation-leading.³

The generations we describe reflect planning, public policy, and economic market perspectives—i.e., an applied demographic vantage point—rather than a purely scholarly frame of reference. The six generations are as follows:

2. This report uses content from earlier work by Hughes and Seneca that will be expanded in a book under preparation for Rutgers University Press (James W. Hughes and David Listokin, New Brunswick, New Jersey: Rutgers University Press, forthcoming 2020), which focuses on many dimensions of past and future New Jersey demographic change: population growth rates, immigration, racial diversity, household and lifestyle evolution, labor force and income, geographic shifts, economic linkages, age-structure movements, and generations. In this report, we do not dwell on specific behavioral attributes that have been ascribed to various generations. Instead we focus on the potential impacts of age/stage in life cycle, technological innovation, and the phase of the economic/business cycle on each generation.

3. <http://www.people-press.org/2015/09/03/the-whys-and-hows-of-generations-research/>. “Age cohorts give researchers a tool to analyze changes in views over time; they can provide a way to understand how different formative experiences interact with the life-cycle and aging process to shape people’s view of the world. ... Generations are one way to group age cohorts. A generation typically refers to groups of people born over a 15- to 20-year span.” Moreover, “Generations provide the opportunity to look at Americans both by their place in the life cycle—whether a young adult, a middle-aged parent or a retiree—and by their membership in a cohort of individuals who were born at a similar time.”

1. The labels “millennials” and “Gen Y” are used interchangeably in this report. While we have tried to resist anecdotal or “trendy” attributes of millennials and other generations, we would still like to take the liberty to point out one recent humorous millennial reference: “generation avocado toast.”

- *Pre-Baby Boom*—a generally broad, reduced-size, population cohort (1930–1945) comprising both a severe Depression-era birth dearth (1930–1940) and a briefly discernible mini-birth uptick during the midst of World War II.
- *The Baby Boom*—the fabled oversized postwar generation born between 1946 and 1964, largely the children of returning GIs, and totally dominating the second half of the twentieth century.
- *Generation X (Gen X)*—the undersized population cohort born between 1965 and 1980, originally termed the baby bust, a less-compelling term that is fading in use.
- *Millennials (Gen Y)*—the digital age’s first generation, born between 1981 and 1996, and the current focus of many institutions trying to manage and accommodate its members.
- *Post-Millennials (Gen Z)*—the mobile internet’s first generation, born between 1997 and 2012 (tentative definition), with its full differentiation from millennials still a work in progress.⁴
- *Generation Alpha*—born post-2012, it could also be called the “What Comes Next?” generation. Alpha is just a suggested name for a cohort that will come of age in the era of artificial intelligence and robotics.⁵

During the mid-twentieth-century decades, sharp variations in births and fertility in the context of economic and societal shifts were instrumental

in specifying generational boundaries. This is particularly the case for the starting and end points of the baby boom generation. It was the foundation for the Center for Urban Policy Research’s early demographic work.⁶ However, sharp variations in births and fertility diminished in the late twentieth and early twenty-first centuries, lessening their value in generational identification.⁷ In their stead, changes/disruptions in societal, economic, and technological environments gained increasing prominence in generational formulations.

A Cautionary Note

While it may be possible to make broad generalizations about identifiable groups, it should also be recognized that there may not be substantial homogeneity across an entire generational spectrum, i.e., there may not be a set of uniform formative experiences shaping a specific population cohort over its full length. This possibility should not reduce the analytical value of the generational lens but simply raises caution as to the dangers of attempting over-generalization or over-precision. Moreover, it should also be pointed out that the specification of generational boundaries is not fixed but may be quite fluid and can change over time as research and analyses advance. And, at any one time, there may not be unanimous consensus on precise boundary points. Nonetheless, despite these caveats, the generational concept hopefully proves useful in helping to add structure to the analyses of past change in New Jersey’s population and the exploration of possible future changes.

4. “Gen Z” and “post-millennials” are used interchangeably in this report.

5. Since Z is the end of the X-Y-Z generational alphabet road, the question is raised: What comes next? According to Mark McCrindle, many scientific disciplines often move to Alpha, the first letter of the Greek alphabet after exhausting the Roman alphabet or Arabic numerals. See: <https://www.businessinsider.com/generation-alpha-2014-7-2>.

6. For example, see: George Sternlieb, James W. Hughes, and Connie O. Hughes, *Demographic Trends and Economic Reality: Planning and Markets in the 1980s* (New Brunswick, NJ: Center for Urban Policy Research, Rutgers University, 1982).

7. Early on it had been observed that changes in social, cultural, and economic experiences contributed to threshold changes in fertility and birth patterns, which produced different-size population cohorts that helped define the baby boom and baby bust (Gen X) generations spawned in the 1946 to 1980 era. Subsequent experiential changes appear to have had less drastic effects on births and fertility.

The Generational Long Waves

Long-term structural changes and generational disruptions are buffeting the Garden State. From descending baby boom–driven outer-suburban residential markets to ascending millennial-driven urban economies, and to increasingly diverse waves of generational succession, many long-held “set-in-concrete” twentieth-century certainties and protocols are being rendered obsolete.⁸ New reference frameworks necessary to accommodate fundamentally new realities—many stemming from the greatest age-structure transformation in history—are in their initial stages of formulation. In this context, the following sections attempt to construct the history of the state’s demographic future.

Pre–Baby Boom⁹

The pre–baby boom, born 1930 through 1945, emerged in a period generally characterized by low births, but has two mostly discernible components. The first is the sustained Depression-era birth dearth (1930–1940), which reflected an economically necessitated conservatism in reproductive behavior. The result was a moving, distinctly visible indentation in the state’s and nation’s age-structure profile as the “dearth” moved through its sequential life-cycle stages. The second was the World War II mini-generation (1941–1945), often called “war babies” or “good-bye babies.”¹⁰ Within the full-term, pre-boomer lull, it comprised a modest upswing in births that peaked in 1943, foreshadowing the huge baby boom upswing that would follow.

8. James W. Hughes and Joseph J. Seneca, *New Jersey’s Postsuburban Economy* (New Brunswick, NJ: Rutgers University Press, 2015).

9. Pew breaks down the pre–baby boom population into “the silent generation” born 1928 to 1945, and “the greatest generation” born before 1928.

10. Truth be told, the authors of this report are “neglected” mini-generation war babies, centered on the brief 1942–1944 birth uptick generally given short shrift by many historical demographic accounts.

Overall, the pre-boom generation is mainly the story of a reduced-scale reproductive period that provides a sharp contrast to the postwar fertility upswings that produced a birth explosion. Pre-boomers are the least racially diverse of the state’s current generations; this report estimates that in 2017 (appendix B), almost three-quarters (73.9 percent) of this generation was white (non-Hispanic).¹¹

The 2020s: The Oldest New Jerseyans

Pre–baby boomers will have aged to between 75 and 90 years old in 2020, resulting in a 2010–2020 decade-long decline in the number of “eighty somethings.” As they age further to between 85 and 100 years by 2030, the number of “ninety somethings” will contract. This does not mean a shrinkage in the overall ranks of seniors during the 2020s, because the aging baby boom will be rapidly growing the younger senior segments (under 80 years of age).

The Baby Boom

The colossal post–World War II baby boom was the most influential age-related demographic event of the twentieth century, one that has left an expansive imprint on twenty-first-century New Jersey. The baby boom not only shaped today’s society, it has also sculpted much of today’s built environment. This physical impression was particularly vast because the baby boom emerged into a postwar state and nation that had widespread capacity limitations. Much of non-urbanized New Jersey was a relatively blank slate, with insufficient infrastructure in place to meet the needs and demands of a huge new generation. Subsequently, at each of the baby boom’s life-cycle stages, vast new capacity had to be put in place, such as educational systems and successive life-cycle-driven housing accommodations.¹² While it is now

11. The percentage would be much higher if their ranks had not been bolstered by diverse immigration flows that resulted from the Immigration and Nationality Act of 1965.

12. In contrast, as the subsequent undersized baby-bust generation proceeded through its life-cycle stages, it found excess capacity in many parts of the built and organizational environment that had been scaled to accommodate the oversized baby boom.

aging—sometimes badly—this multidimensional infrastructure remains an integral part of twenty-first century New Jersey. For this reason alone, the baby boom deserves maximum attention.

*The Generation's Emergence*¹³

The baby boom is the vastly oversized population cohort born between 1946 and 1964. It was often visually described as the “pig in the demographic python”—a huge outcropping on demographers’ age-structure charts. At the all-time peak of the boom (1957), a then record 4.3 million boomers were born in the U.S. That translates into 11,781 births per day, 491 per hour, or more than eight per minute. In other words, every seven and one-half seconds another baby boomer entered America’s postwar world. If the average woman that year experienced all the age-specific birth rates of 1957 throughout her reproductive years—which is measured by a synthetic metric known as the total fertility rate—she would produce a prodigious 3.8 children during her lifetime. In sharp contrast, the total fertility rate in the U.S. in 2017 was less than one-half of that—just below 1.8.¹⁴ This is far below the 2.1 replacement-level fertility rate.¹⁵ In any case, when the boom technically ended in 1964, its total product represented an unprecedented 40 percent of the nation’s population. This was also true in New Jersey.

Compositionally, compared with subsequent generations, the baby boom is the least diverse postwar cohort when viewed by today’s more

complex multiracial, multi-continent-of-origin parameters. Most baby boomers were descendants (grandchildren) of the late-nineteenth/early-twentieth-century European immigrants. Early baby boom subpopulations were often differentiated by their primary European nationalities, e.g., Irish versus Italian versus German. Such metrics have less direct relevance or application in the context of today’s more complex diversity segments. In retrospect, while the fertility upsurge was pervasive across many societal subgroups, the baby boom still looks far more homogeneous than any successor generation.

Residual Living Environments

In a postwar period of widespread housing shortages, the sprawling post-World War II suburban subdivisions (comprising Cape Cod, ranch-burger, and split-level dwellings set on pedestrian-unfriendly street patterns dominated by dead-end cul-de-sacs) were essential to conceiving and raising much of the baby boom. Such shelter configurations had to be quickly set in place in less than one-quarter of a century, causing a vast geographic transformation of New Jersey.

Between 1950 and 1970, young families moved into Levittown-style houses at the approximate rate of 1,000 per week across New Jersey for more than 1,000 straight weeks. Nothing less than a homebuilder’s bacchanalia took place—nearly 50,000 units per year were built in this two-decade period. The 1950s and 1960s defined the state’s golden housing production era—approximately one million new housing units went up in twenty years.¹⁶ This peak housing-production rate would never be seen again.¹⁷

13. These are some of the popular images concocted during the baby boom’s twentieth-century life-cycle odyssey: the “hula hoop” generation of the 1950s; the “Woodstock” generation of the 1960s; the “yuppie”—young upscale/urban professional—brigades of the late 1970s and early 1980s; “Dinks”—double (dual) income no kids, and then “dewks”—dual employed with kids—successively emerging in the later 1980s; and “grumpies—grown-up mature professionals—in the 1990s.

14. <https://www.cdc.gov/nchs/data/vsrr/report004.pdf>. The 2017 national level is 1.766 while the New Jersey level is slightly lower at 1.755, a difference of less than one percentage point. See also: https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_01-508.pdf.

15. The 2.1 metric is the total fertility rate that generates enough babies to produce two adults that are needed for the population to replace itself. It’s the rate that, absent immigration, would produce a long-term stable population level.

16. There were actually just 998,000 dwelling units authorized by building permit between 1950 and 1970. See: James W. Hughes and Joseph J. Seneca, *Housing Bubble or Shelter Safe Haven?* (Rutgers Regional Report Number 19, September 2003), pp.9–11.

17. To put this into perspective, during the economic expansion years of 2013 through 2018, the average number of dwelling-unit permits was approximately 28,600 per year. This compares with 50,000 units per year for the twenty years between 1950 and 1970.

Thus, the great baby-boom emergence drove the high-volume production of standardized family-raising shelter for more than two decades, resulting in a vast homogeneous mass middle market. Many examples of such early tract house developments still starkly dominate large swaths of suburban New Jersey. These were either historically tied to New York City and Philadelphia, or were located within the burgeoning commuter sheds of the state's major cities.

Following the proliferation of these baby boom—spawning “nests” were the waves of newly constructed garden apartments in the 1960s and 1970s. These were built in response to the baby boom itself entering the housing market directly, making baby boom household formation possible.¹⁸ The Garden State seemingly became the “Garden Apartment State.” Penetrating ever deeper into the suburbs, garden apartments challenged the suburbs' once-dominant child-centric focus.¹⁹

Subsequently, the baby boom—driven transformation of suburbia continued as it proceeded through its life-cycle stages. Townhouses and condominiums—dwelling-unit types that had been virtually nonexistent in New Jersey beforehand—then burst on the statewide scene in the 1980s and early 1990s. This both reflected and facilitated baby-boom homeownership demand and entry. All of these shelter formats still exist as major working parts of the state's suburban housing supply system, standing as physical residuals of the early phases of the baby boom life cycle from birth through early adulthood.

18. By definition, you can't have a household without a housing unit. In addition, the baby boom was a driving force in the nation's household revolution, which redefined the lifestyle fabric of America. To put it simply, boomers created what were then considered unconventional living arrangements. One result was that the Census Bureau in the 1970s designated certain unmarried couples living together as “POSSLQ's”—“Persons of the Opposite Sex Sharing Living Quarters”—as it attempted to describe cohabitating households. “POSSLQ's” is pronounced “possle-cues.”

19. Because of lower land costs compared with present-day New Jersey, the generic garden apartments of the 1950s and 1960s were relatively low density—eight to ten units per acre—and surrounded by abundant landscaping and outdoor “green” space. Densities for today's product could easily be more than triple that, i.e., much less garden in garden apartments.

Also still prominent on the landscape stands the next historic stage of baby boom housing consumption—the high end of the shelter rainbow. This format comprised the geographically dispersed array of large-lot, trade-up, single-family units, the most extreme of which were outsized McMansions; many of these behemoths served as upscale millennial-centered family-raising environments. Turn-of-the-century “living large” excesses were concentrated here, symbols of baby boom suburban shelter overconsumption that many millennials fled from as they came of age. Left behind were empty-nester baby boomers rattling around in what now remain as housing market laggards desperate for buyers.²⁰

Now, the latest visible housing-market sectors catering to late-stage baby boomers are twenty-first-century age-restricted and life plan communities.²¹ Thus, the baby boom has permanently stamped its successive phases of housing consumption on every geographic part of New Jersey.

Residual Work–Play Environments

The baby boom not only set in place New Jersey's multiple living environments as it traversed its life cycle but also produced lasting footprints of its favored twentieth-century work-and-consumption environments. At the extreme are the rapidly aging—and in some cases, the carcasses of—automobile-centric suburban office campuses. In a virtual

20. This is a growing national phenomenon—too many big houses—that is also evident in the rapidly growing Sunbelt. See: <https://www.wsj.com/articles/a-growing-problem-in-real-estate-too-many-too-big-houses-11553181782>.

This problem is expected to worsen in the 2020s, as boomers advance into their seventies and eighties. See: <http://www.fanniemae.com/portal/research-insights/perspectives/older-homeowner-exodus-myers-simmons-071118.html>.

21. “Life Plan Communities” is a recent term created by the senior living industry to replace what had previously been called continuing care retirement communities. Reflecting historic baby boom sensitivities and challenges to older norms, the new name implies a vibrant community setting that supposedly fosters independence, new experiences and growth, and has the “right” plan for what the next stage in life has to offer. In contrast, “continuing care” implies dependence—a community setting where older adults are being cared for.

construction tsunami, they were erected in the 1980s and 1990s largely to house legions of suburban-centric baby-boom white-collar workers. This office inventory now stands—if indeed it is still standing—as obsolete early postindustrial workplaces internally structured and shaped by what today are considered primitive first-stage information technology systems (see appendix A). Likewise, New Jersey still has the aging—and in some cases the forlorn—remnants of a vast landscape of impenetrable shopping fortresses known as enclosed superregional malls. The bricks-and-mortar residuals of these once-vibrant cathedrals of consumption are monuments to the shopping and consumption protocols of the baby boom past.

This vast overall physical evidence makes it difficult to refute the fact that much of New Jersey today—and perhaps what needs to be surmounted—is a product of the baby boom life-cycle odyssey. Where does the baby boom fit now and in the next decade?

*The 2020s: Maturing 70-Somethings*²²

This report estimates that in 2017, close to the end of the 2010s, two-thirds (approximately 66.3 percent) of all boomers were white non-Hispanics (appendix B). This is lower than their share in the 1950s and 1960s because of the diversity introduced by sustained immigration during the subsequent five decades. But boomers are still the least diverse postwar generation in a state in which the white (non-Hispanic) share of the population stood at 55.1 percent in 2017.

In 2020, the baby boom will be between 56 and 74 years of age, representing the start of a more old than young society—a new age-based multigenerational New Jersey. With a median age approaching 65 years in 2020, members of the baby boom will be evenly partitioned between retirees (older than 65 years) who have exited the workplace doors for the final time, and active labor force

participants (younger than 65 years).²³ Of the latter, many will still be in their peak-earning years, perched on the upper rungs—both private and public—of the organizational ladder. But the subsequent decade of the 2020s will see a mass baby-boom exodus from the labor force and from their once-dominant societal leadership positions. This will represent the greatest brain drain in the state's history. How to capture and retain the baby boom's expansive knowledge that was accumulated over a lifetime—encompassing experience, wisdom, cognitive skills, and institutional memory—will be a crucial issue confronting all public and private organizations.

As resident 70-something baby boomers pervade the Garden State in the 2020s, they will continue to exert an outsized market footprint.²⁴ The decade will see an increased proliferation of retirement, life plan, and continuous-care communities, as baby boomers reinvent retirement and advanced senior living.²⁵ The sheer scale of this generation's departure from suburban single-family homeownership will represent an excess housing supply that may greatly overwhelm the scale of demand of younger generations. Huge buyers' markets in vast swaths of suburban New Jersey most likely will ensue. The baby boom life cycle—a key force of the historic twentieth-century suburbanization of the Garden State—will enter its final stages by 2030. In that year, baby boomers will range in age between 66 and 84 years.

23. This is more an illustrative than precise partition between retirees and non-retirees, since many boomers will have retired before age 65 years, and many will still be active in the workforce after they turn 65. Since the median age of retirement in the United States is now approximately 63 years, a median age of 65 years indicates that in 2020 baby boom retirees will be in the majority.

24. What has yet to be determined is the scale of outmigration of boomers to more affordable and more climate-friendly environments.

25. As the 2010s came to a close, demographically savvy developers anticipated surging demand for such accommodations and may have overbuilt—creating excess market inventory. But, according to the *Wall Street Journal*, they were still expecting the expansive fundamentals of senior living to fully assert themselves in the 2020s. https://www.wsj.com/articles/baby-boomers-are-living-at-home-thats-bad-news-for-senior-housing-developers-1540897200?shareToken=st6e7529fc02e54fce8d28d46c829867ce&ref=article_email_share.

22. The last four presidents of the United States have been baby boomers, with all in office in the twenty-first century. This boomer legacy may be on its last legs in the 2020s.

Generation X (Gen X)

The massive baby boom demographic bulge came to an end in 1964 after a nineteen-year run. In 1965, births plummeted. The result was initially called the “baby bust,” an undersized population cohort produced during the low-birth era from 1965 through 1980. Originally it mainly comprised offspring of pre-baby boomers and baby boomers, but its small size in subsequent decades was ultimately bolstered by immigration.

It is now more commonly referred to as Gen X or Generation X. In contrast to the baby boom “outcropping,” this cohort of contraction initially became a moving indentation on demographers’ age-structure charts. While the size of the baby boom unleashed the dynamics of sustained expansion to accommodate it at each of its life-cycle stages, the baby bust unleashed the dynamics of shrinkage.²⁶

Expansion Versus Shrinkage

For example, baby boom–inspired school-expansion issues that took place in many communities in the 1960s and 1970s were supplanted by baby bust–inspired school-closing issues in the 1980s and 1990s. This is but one example of excess supply/overcapacity issues associated with the baby boom to baby bust transformation. It is also the reason why Gen X’s physical impact on the state’s landscape has been far less than that of the baby boom. The vast infrastructure set in place to harbor the oversized baby boom was more than sufficient to accommodate an undersized Gen X.

The disparity was subsequently ameliorated somewhat by the impact of sustained international immigration following the Immigration and Nationality Act of 1965, which increased the ranks of Gen Xers in subsequent decades. It also served to ultimately increase the diversity of Gen X far beyond that of the baby boom. As observed by the Pew Research Center, Gen X is America’s neglected

“middle child,” sandwiched between those two noisy behemoths—the huge baby boom (largely white) and millennial (far more diverse) generations.²⁷

Move Over Boomers

The stuck-in-the-middle Gen Xer’s finally may have been getting their due at the tail end of the 2010s. An emerging task of vital importance to the state and nation started to fall to them: the direct replacement of boomers leaving the many societal roles that they had extensively performed since the turn of the century. More-assertive members of this generation will increasingly be able to proclaim, “Move over boomers—it’s our time.” In 2015, the first Gen Xers turned 50 years old, maturing into the top-line workforce. They were then poised to assume the leadership ranks left open by exiting boomers, although younger baby boomers still in their fifties were not fully ready to yield their positions to replacements at that time. Nonetheless, in organizations across New Jersey, as well as in the nation, by the late 2010s older Gen Xers were starting to ascend to the C-Suite, which gets its name from the titular letter C usually attached to the three highest-level executives in senior management—CEO (chief executive officer), CFO (chief financial officer), and COO (chief operating officer).²⁸

2020s: Maturing 50-Somethings

Gen Xers are considerably more diverse than their baby boom predecessors. This report estimates that, in 2017 New Jersey, white (non-Hispanic) Gen Xers were still a majority, but just barely (52 percent). Thus, whites accounted for just over one-half of Gen X, compared with two-thirds for boomers, and three-quarters for pre-boomers. The trend of increasing generational diversity is clear.

In 2020, Gen X will be between 40 and 55 years of age. This age span represents the peak family-raising stage of the life cycle as well as the

26. Gen X in a number of instances followed closely their baby boom predecessors. For example, a number of them were accused of being “yuppies,” described earlier, in the late 1980s and 1990s, a term which originally was tied to boomers a decade earlier.

27. <http://www.pewresearch.org/fact-tank/2014/06/05/generation-x-americas-neglected-middle-child/>.

28. Increasingly, there have been other “Cs”—chief information officer, chief innovation officer, chief diversity officer, and so on—added to the “Suite.”

age of peak housing consumption. But the single-family home market's robustness will be inhibited by generational-size disparities. Smaller Gen X market inflows are not sufficient to fill the voids created by exiting baby-boom market outflows. Gen X is also poised to penetrate deeper into the top-line workforce by 2020. Succession planning and its actual execution will increasingly dominate the ensuing decade of the 2020s.

By 2030, Generation X will be firmly into advanced middle age—between 50 and 65 years old. Every 50-something in New Jersey will be a Gen Xer. Depending on the state of the economy at that time, retirement will be on the radar screen of the oldest Gen Xers. But, for most, their leadership positions in society and the economy will be peaking: Gen Xers will still be in full command of the economy and most of society's institutions.

At the same time, another generational shift out of the single-family home market will ensue. The oldest Gen Xers will be empty-nesters, facing entry into the first-stage, specialized post-single-family housing-market sectors—such as age-restricted active-adult communities—pioneered by the baby boom earlier in the century. Simultaneously, the youngest Gen Xers will still be in the late child-rearing sector of the life cycle, still trading up in the housing market—and consuming greater amounts of housing. The entire generation will be happily confronting buyers' markets, again being the beneficiary of the baby boom's vast supply residual—Gen X-driven undercapacity demand continually confronting baby boom-driven overcapacity supply.

Millennials/Gen Y

The Gen Y or millennial generation was activated by what looked like the delayed discovery of procreation by baby boomers. As young adults, baby boomers seemingly refused to reproduce themselves. But eventually they did. In 1981, a potent baby boom echo began that lasted through 1996. It was first called the baby boom echo, or echo boomers—both terms retreating into history—then subsequently termed Gen Y or millennials, now the most popular usage. This broad generation represents the second great population bulge of the twentieth century.

Gen Y came of age in a period (1980–2000) when digital information technologies began to significantly reshape the nation and state. Thus, the very definition of Gen Y/millennials now centers on the logic that this was the first population cohort born and raised in the rapidly advancing digital age, when informational- and computational-technology progress proved to be nothing less than transformative to all dimensions of society. These advances are detailed in appendix A.²⁹

*Millennials and the Business Cycle*³⁰

The oldest millennials entered college age and adulthood during the 2001–2007 economic expansion.³¹ But in December 2007, the Great 2007–2009 Recession began. Many millennials entered the labor market during the worst economic downturn (and its aftermath) since the Great Depression, which set back some career trajectories. Household formation, marriage, and family rearing were also deferred.

The Great Recession ultimately translated into long-lasting wealth impacts across all age cohorts, but they were most severe for young families. According to analyses by the Federal Reserve Bank of St. Louis, “the 1980s cohort is at greatest risk of becoming a ‘lost generation’ for wealth accumulation.”³² Thus,

29. Very simply—in all organizations—paper, typewriters, and filing cabinets were replaced by desktop and laptop computers, electronic record keeping, and the internet.

30. Before the Great Recession (December 2007–June 2009), millennials experienced the following business cycle stages: the strong 92-month-long November 1982–July 1990 expansion, the mild 8-month-long July 1990–March 1991 recession, followed by the very strong (then record-length) 120-month-long March 1991–March 2001 expansion. This 1982 to 2001 period was one of two powerful expansions, punctuated only by a very mild downturn. Thus, they were born into an era of sustained prosperity. Then the mild 8-month-long March 2001–November 2001 recession occurred, followed by the 73-month-long November 2001–December 2007 expansion. To that point (2007), millennials—then 11 to 26 years old—seemed to have lived a “charmed” economic life. This probably made the shock of the Great Recession even more surprising and painful.

31. The term “yuppie,” noted earlier, refused to die in the twenty-first century. Its direct adaptation was “muppie,” millennial upscale/urban professionals.

32. <https://www.stlouisfed.org/household-financial-stability/the-demographics-of-wealth/wealth-impacts-of-great-recession-on-young-families>. For the full study, see: https://www.stlouisfed.org/~media/Files/PDFs/HFS/essays/HFS_essay_2_2018.pdf?la=en.

millennials experienced lost recession/postrecession earnings, and/or postrecession under-earnings. In turn, this may have spawned lasting economic insecurity and hindered the asset accumulation necessary to ultimately pursue homeownership. Added to this impediment are the issues of student debt, covered extensively in the popular media, and stricter postrecession lending standards.³³ All of these factors contributed to the surging postrecession growth of rental households, and stagnation of owner households both nationally and in the state.

Post–Great Recession Millennials

By 2014—five years into the postrecession economic expansion, millennials (then between 18 and 33 years of age) surpassed the baby boom in share of the American workforce (aged 18 and over); by 2015, they surpassed Generation X as the largest sector of the workforce. (In 2012, Gen Xers had surpassed boomers in workforce share.³⁴ But their dominance proved to be short-lived.)

During this period (the 2010s), millennials became the prized labor force commodity, eagerly sought by a corporate America that increasingly required digital talent. And, where that talent wanted to be started to drive corporate locational decision-making. Millennials began to totally reinvent New Jersey’s economic and shelter landscapes—redefining the workplace, reshaping workplace location, and transforming the geography of housing demand. They have been replicating the impact—although quite differently—that the predecessor baby boom had made when it entered adulthood.

In contrast to automobile-centric suburban environs, many millennials prefer 24-7 live-work-play (LWP) environments—not plain-vanilla suburban domiciles, but often edgy, authentic, and experiential environments. Developers and locational specialists labeled the most talented and

highly skilled millennials as the “digerati,” who were at the forefront of the new lifestyle preferences. In contrast to the baby boom, which was instrumental in establishing twentieth-century suburban locational preferences, millennials have been instrumental in fundamentally reinventing the geographic norms of the twenty-first century.

Throughout the second decade of the twenty-first century—despite the rise in the number of young adults living with their parents³⁵—millennials’ spatial movements across the state could be described simply as sprawl withdrawal, exiting rural, exurban, and suburban areas for the millennial-cool, urban-centric environments. But as the decade came to a close, older millennials were getting married and starting to reproduce. In fact, the era of millennials in the family-rearing stage of the household life cycle has commenced, an era that will prevail during the third decade of the century. Their postrecession shelter choices and workplace locational preferences have already been restructuring the state and region. Will their preferences change in the unfolding era? Will their financial capabilities be sufficient to vigorously pursue homeownership, particularly in relationship to student debt levels?³⁶ Will the burbs bounce back? Will there be sharp suburban differentiation, as millennials may want a different type of suburban landscape?³⁷ These are key questions that remain to be answered.

Millennials have also reshaped—and are continuing to reshape—the economy in other profound ways. One dimension is the shift in the nation’s consumer-spending behavior—the choosing of experiences over goods, a trend that has been driven by millennials. “Personal-consumption expenditures (PCE) on experience-

33. <https://www.nytimes.com/2018/05/25/business/how-student-debt-can-ruin-home-buying-dreams.html>.

34. Richard Fry, “Millennials Surpass Gen Xers as the Largest Generation in U.S. Labor Force,” Fact Tank, Pew Research Center, May 11, 2015. <http://www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/>.

35. <http://www.pewresearch.org/fact-tank/2017/05/05/its-becoming-more-common-for-young-adults-to-live-at-home-and-for-longer-stretches/>. This is not a new concept; in 1998, the *Harvard Business Review* published “Welcome to the Experience Economy.” <https://hbr.org/1998/07/welcome-to-the-experience-economy>.

36. <http://libertystreeteconomics.newyorkfed.org/2017/04/at-the-ny-fed-press-briefing-on-household-borrowing-with-close-up-on-student-debt.html>.

37. <https://www.nytimes.com/2017/09/15/sunday-review/future-suburb-millennials.html>.

related services—such as attending spectator events, visiting amusement parks, eating at restaurants, and traveling—have grown more than 1.5 times faster than overall consumption spending and nearly 4.0 times faster than consumer goods. ... Consumers of all ages are opting for experiences, with millennials leading the charge.”³⁸

There has been a vast proliferation of such market analyses detailing the shift to the experiential economy. Not surprisingly, the sometime passionate search for unique experiences by millennials has given rise to the acronym YOLO (You Only Live Once) generation.³⁹ It may be an overgeneralization, but it has been asserted by marketers that the goods-accumulation passion of earlier generations has been supplanted by millennial-led experience-accumulation passion. Such behavioral shifts, along with information technology facilitation, underscores in particular one of the severe problems afflicting retailing during the 2010s: contracting brick-and-mortar footprints. While the baby boom was once one of the driving forces of the “mall-ing” of New Jersey, millennials have become one of the driving forces of the “de-malling” of New Jersey.

2020s: Maturing 30-Somethings/ 40-Somethings

Gen Y is the state's first generation of whites (non-Hispanic) constituting a minority; in 2017, whites accounted for less than one-half (47.6 percent) of the overall millennial population in New Jersey. It is the first majority-minority generation in the state. This already has translated into increased educational-system and workplace diversity and opportunities.

Millennials, long fixated as the new, emerging demographic cohort in New Jersey, will no longer be “youngsters” by 2020 and, like the nation, will have overtaken boomers in population size.⁴⁰ They will

38. <https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/cashing-in-on-the-us-experience-economy>.

39. <http://www.brandquarterly.com/rise-experience-economy>.

40. <https://www.pewresearch.org/fact-tank/2018/03/01/millennials-overtake-baby-boomers/>.

dominate the “thirty-something” age bracket, with leading-edge millennials passing through their fourth decade of existence, poised to enter their fifth.⁴¹ Between 24 and 39 years old in 2020, they will dominate the entry-level and lower-middle tiers of the labor market. They will have totally transformed the structure of the workplace and workplace location, and reshaped housing demand.

One of the millennials' legacies was their pre-2020 role as a driving force in the emergence of a postsuburban New Jersey economy and demography. Millennial workplace and residential choices led the state's urban resurgence during the century's first two decades (2000–2020), a period when New Jersey's automobile-centric outer suburbs seemingly ran out of gas. It may be an over-exaggeration to label them “zones of suburban evacuation,” but placid, low-density, outer suburban territories had fallen out of millennial fashion. In contrast, exciting, higher-density, multidimensional urban activity centers were in. The latter could be labeled “zones of urban millennial emergence.” But lifestyle preferences tend to change with age and maturity.

While leading-edge millennials will have already moved into the family-raising stage of the life cycle by 2020, most of the remainder will do so during the ensuing decade, raising the possibility of significantly different spatial living-environment choices throughout the decade. The issue of the state's changing demographic geography during the 2020s will largely be framed by two boundary questions. Will maturing millennials decide to remain in car-free or car-light amenity-rich, urban-style environments? Or will they prove not to be averse to human-driven personal vehicles, lower-density domiciles, and other suburban appurtenances?⁴² At a minimum, there

41. By 2020, leading-edge millennials, born pre-1985 or so, had passed through four decades: 1980s, 1990s, 2000s, and 2010s. Thus, although in their late 30s by 2020, they entered their fifth decade of existence—the 2020s.

42. A recent (March 2019) working paper by the National Bureau of Economic Research suggests car ownership among younger Americans looks a lot like that of older Americans. <https://www.nber.org/papers/w25674.pdf> and <https://www.citylab.com/transportation/2019/03/millennial-car-ownership-driving-behavior-vehicle-data/585667/>.

should be some abatement of the de-suburbanization tendencies that dominated the 2010s.

Any suburban bounce back will not be a tidal wave but rather a differentiated transition. Select, suburban, family-raising environments that provide urban amenities likely will gain increasing favor as the decade advances. And, surging costs in those locations that “suffered” intense millennial demand in the 2010s will act as a push factor into the new “zones of suburban millennial emergence.” However, those areas that benefitted earlier from millennial lifestyle preferences will probably counter with an array of millennial-retention strategies.

Much of the vast inlying suburban single-family housing stock built between 1950 and 1970 to accommodate the gestation and raising of the baby boom will be between 60 and 80 years old by 2030. Will millennials, many of them offspring of the baby boom, come full circle and reinhabit the now (mostly) obsolete suburban childhood homes of their parents or grandparents? Or will they want suburban locales that replicate the amenity-laden live-work-play, higher-density environments and lifestyles they embraced as young adults? This is a fundamental question that many suburban New Jersey communities will have to confront: what strategies to follow in order to reinvent themselves to accommodate the new demography. While the ultimate outcome is still uncertain, one likely result is unprecedented suburban differentiation—communities either adopted or rejected by family-raising millennials.

As noted above, the post-World War II trade-up dynamic—increasing moves to larger houses on bigger lots—was an overwhelming housing-market force perfected to an art form by the baby boom. But so far in this century, millennials have rejected many baby boom conventions. Will “upscaling” in place be the “new” trade-up model, with specific communities (or municipalities) assuming a much more central role in residential decision making? Will a new normal emerge: trading up (renovating) in place instead of moving up and out, with “ideal” community supplanting “ideal” housing configuration? Will starter homes ultimately become the new “forever”

homes? This would represent a disruption of the high rates of geographic mobility historically displayed by households moving through the life cycle. If so, urban “zones of millennial retention” may proliferate by 2030. Regardless, the new millennial-driven “zones of suburban emergence” will have made some imprint on the state’s population geography. However, the full scale of this imprint is open to very real question.

By 2030, millennials will enter middle age, and be between 34 and 49 years of age. Like their baby boom predecessors, they will unsuccessfully attempt to recalibrate the biological clock by rebranding this age span “middle youth” instead of middle age. Nonetheless, with increased earning power, their lifestyle preferences will increasingly dominate New Jersey. Yet, another uncertainty arises: If a new suburban-based millennial residential pattern strongly emerges, what does that mean for a corporate sector that had repositioned itself in relation to their earlier locational preferences?

New Jersey’s workforce will increasingly become millennial-centric by 2030. This technology-defined generation already helped to dramatically restructure the workplace, both functionally and spatially. But information technology, artificial intelligence, and machine learning will inexorably advance. Will the mantle of cutting-edge technological prowess and leadership be retained by millennials, or will it be captured by the next generation?

Gen Z/Post-Millennials

This report has adopted the 2018 Pew delineation of post-millennials, which specifies 1997 as the starting year of this generation. To be consistent with the 16-year age span of Gen X and Gen Y, the year 2012 has been adopted as the “work-in-progress” endpoint for Gen Z, with the full recognition that further research may serve to alter this selection.

It is often observed that older generations tend to complain about younger generations, and that the latter must experience and submit to such rites of passage. Millennials suffered such indignities as to their “radical” choice of residence place, and their workplace habits and preferences. A quip that gained

relevancy was “If you are suffering from millennial fatigue, and are tired of bashing millennials, you will soon have a new generation to complain about—Gen Z (post-millennials).” That time is now arriving. In 1997, the first Gen Zer was born. Their formative experience was a world where advancing digital informational technology and the internet were intensifying their impact on all dimensions of society in the U.S. and in New Jersey. In 2007, when the smart phone and mobile internet connectivity became the new innovative frontier, the oldest post-millennial was only 10 years old. Gen Z could not avoid being engulfed by an era of mobile digital technology and an era of social media.⁴³ It has grown up with access and connectivity to everything, everywhere, all the time.

In the late 1980s, when birth and fertility fluctuations appeared to have a role in generational delineations, the collective offspring of a small Gen X (baby bust) were supposed to amount to a baby bust echo (now Gen Z)—a secondary small generation. This would have been a parallel development to the baby boom producing Gen Y—a baby boom echo. However, this size expectation did not materialize, due to immigration and a slight upward bump in fertility. Instead, a peaking of births occurred in the first decade of the twenty-first century, the core years of Gen Z. Thus, the term “baby bust echo” was rendered obsolete.

In 2010, when economic recovery from the Great Recession gained momentum, the first post-millennials became teenagers (13 years old), while the last had yet to be born. For the balance of the decade of the 2010s, when economic growth prevailed throughout the nation and state, all post-millennials were passing through, or had just passed through, the state’s K-12 educational system. Certainly, school systems have had to continually adapt since the onslaught of the baby boom more than 60 years earlier. This has continued in the Gen Z–dominated postrecession years.

The introduction of the smartphone and unfettered connectivity—the seemingly habitual need to connect socially via digital technology—represents fundamental structural change, the latest in a series of technological disruptions. In contrast, Gen Z’s racial and ethnic diversity represents more of a long-term transformation in New Jersey, with many antecedents. Most educational systems are not confronting major short-term diversity shocks but instead are adapting to gradual sustained change in their constituent student bodies for more than one-half century. Sequentially, Gen X was more diverse than the baby boom, Gen Y millennials were more diverse than the members of Gen X, and most recently, Gen Z more diverse than millennials. Thus, there has been—or should have been—a multidecade period of adjustment to the long-term trajectory of racial and demographic change.

Unlike the baby boom, Gen X, and Gen Y, the full generational impact of Gen Z has yet to be fully distilled, particularly not by scholarly determination. As noted above, millennial behavior and preferences—in the context of the impact of digital advances—did instigate fundamental change in the workplace, workplace location, and residential geography. This represented a radical departure from earlier baby boom protocols that dominated the twentieth century. A key question is whether Gen Z will ultimately spawn equivalent fundamental changes as the twenty-first century advances, or whether they will initiate only modest changes that largely follow in the footsteps of the new “norms” established by millennials. In the latter case, after drastically reinventing themselves to cope with intersecting millennial and digital-technology challenges, will workplaces find it much easier to adapt to potentially more muted post-millennial essentials?

One of the most influential societal changes associated with millennials was highly visible on New Jersey’s physical demographic landscape—millennial-driven higher-density urban resurgence, and lower-density suburban malaise. This represented another major disruption to twentieth-century baby boom norms. Is it possible that Gen Z will ultimately return to the suburban-centric posture of the baby boom,

43. An adolescent is considered to be between 10 and 19 years old—roughly the period between childhood and adulthood. This is consistent with the World Health Organization’s definition of adolescence.

or will it maintain the urban-centric preferences of millennials?

As was the case for earlier generations, severe business-cycle swings occurring at specific life-cycle stages have had the ability to shape long-term economic frames of reference and future attitudes and behaviors. How influential was—and will be—the Great Recession on impressionable young Gen Z post-millennial children if they closely observed its negative impact on their parents and/or older siblings? What will this mean to their lifetime thinking on the economy, and their resulting workplace behavior? As noted earlier, the Great 2007–2009 Recession was the worst global economic downturn since the Great Depression. The children of the Great Depression exhibited economic conservatism and financial reticence during much of their lifetimes, despite some extraordinary long and powerful economic expansions. Will history repeat itself?

2020s: Maturing 20-Somethings

Gen Z post-millennials closely replicate the diversity of millennials: White (non-Hispanics) accounted for 48.1 percent of the Gen Z population in 2017. It is thus the second generation in the state that is majority-minority.

Gen Z will be 8 to 23 years of age in 2020, dominating most of the K-12 education system. This is almost exactly the same generational position held by the baby boom in 1970, one-half century earlier.⁴⁴ Similarly, Gen Z will comprise most of the undergraduate enrollment ranks of colleges and universities in 2020, just as the baby boom did in 1970. However, racial and ethnic diversity fully characterizes post-millennials in the educational system; racial and ethnic homogeneity characterized the baby boom when it was similarly positioned.

Gen Z to date has been subject to less analysis compared with the older generations under scrutiny here, leading to somewhat more speculation about their future behavioral attributes. But the implications of Gen Z's specific age- and life-cycle position are less speculative. During the 2020s,

since they will increasingly dominate the entry-level job market, members of Gen Z could be called the “post-gen” workforce, succeeding the millennial-based “next-gen” label. If history is a guide, the emerging Gen Z will then become the prized corporate knowledge-based labor-force commodity. It will constitute the critical mass of the new talent foundation that will be essential for sophisticated technological leadership. Whatever technological advances unfold in the 2020s, it will be the first generation to have experienced them in New Jersey's classrooms.

As pointed out earlier, millennials comprised the first generation raised in the digital age. Subsequently, they helped to transform the economy. Gen Z—the first generation raised in the mobile era of smartphones and social media, with access and connectivity to everything, everywhere, instantaneously—will also influence a changing economy. Will its ultimate impact be transformative and revolutionary, or will it simply be an evolutionary extension of now established millennial-driven economic contours?

In the 2020s, Gen Z will stand as the most diverse generation born in the post–World War II twentieth century. It will also be the least suburban-born/most urban-born demographic cohort in New Jersey. Will it discover the state's suburban arena to be an exciting new frontier as it forms households, or will it eschew the suburbs not only in residential terms but also in place of work?

By 2030, members of Gen Z will be 18 to 33 years of age, with many still engaged in first-time household formation. Questions and uncertainties will abound. Will those geographic areas favored by millennials in the 2010s be saddled with out-of-reach cost levels, inhibiting the entrance of Gen Z? Will new, more affordable, “cool” areas emerge? Will millennial outflows from their favored lifestyle-based haunts of the past to more conducive family-raising environments leave voids that can be filled by Gen Y? Or will “mature-in-place” millennials post “no vacancy” notices? Concurrently, will the corporate settlement patterns predicated on millennial preferences be adaptable to post-millennial realities?

44. In 1970, the baby boom was 6 to 24 years old.

Generation Alpha

This is the first demographic cohort in which every member was born in the twenty-first century. Thus, the tentative name of alpha—the first letter of the Greek alphabet—certainly serves as an appropriate, if preliminary, moniker. Since alphas were born in the second decade of the twenty-first century (post-2012), the preceding twentieth century will probably seem like ancient history to them. This will not be surprising since many alphas will be children of millennials—the last generation born totally in the twentieth century—and they will also be either grandchildren (oldest alphas) or even great grandchildren (youngest alphas) of the increasingly “ancient” baby boom, the mid-twentieth-century behemoth.⁴⁵

Gen Alpha’s cutting-edge generational position will certainly give it a different and unique frame of reference. For example, the time gap (45 years) between Gen Alpha in 2020 and the end of the Vietnam War (1975) is greater in length than the gap (42 years) between the baby boom in 1960 and the end of World War I (1918). Even the tragic events of the terrorist attacks of 9/11 (2001) will be as distant (19 years) from alphas in 2020 as the end of World War II (1945) was to the baby boom in 1964 (19 years). Events that may have great relevance to one generation can be historical footnotes to a following generation.

When the first alpha was born (2013), births and fertility rates in the United States were strongly trending downward. Consequently, Gen Alpha may be destined to be the smallest generation since the baby bust (Gen X), and it will be immersed in a new demographic era—a more “old than young” society. In 2019, a transformational demographic event took place: The number of Americans over 60 years of age surpassed the number of people under 18 years of age.⁴⁶ How will the new “minority young” be impacted by the dawn of a more-gray America? Will

45. Obviously, baby boomers may be offended by the term ancient, just as they were by such descriptors as “aging” and “older.” What they prefer are adjectives such as “leading-edge,” “life-experienced,” “chronologically gifted,” and so on!

46. <https://www.census.gov/newsroom/press-releases/2018/cb18-41-population-projections.html>.

alphas be viewed as a scarce commodity that will be generously nurtured in order to challenge a workforce-short economic future? Or will the needs of alphas be overshadowed by an older America consuming a disproportionate share of society’s resources? At a minimum, the prospect of a new era of population growth stagnation, if realized, and a complementary period of an aging America, have the potential to help forge and mold Gen Alpha as the century advances.

The alpha cohort is the first generation that was never alive when smartphones, tablets and always-on instantaneous connectivity did not exist. While Gen Y and Gen Z quickly adapted to this new technological world as it emerged, it was already Gen Alpha’s encompassing world at birth. What was once cutting-edge and “new” quickly became commonplace and “assumed.” The subsequent era of artificial intelligence, robotics, and even more advanced interconnectiveness is destined to define the new “new,” which will further shape Gen Alpha as it proceeds through its early life-cycle stages.

Other generational-molding events are in force, but their impact is not yet fully realized nor defined. An even higher level of diversity characterizes Gen Alpha: In 2017, 43.3 percent were white (non-Hispanic). And the business cycle, an instrumental force shaping the lives of past generations, will not be abolished anytime soon. Alphas so far have experienced only positive economic times, being enveloped by the longest upcycle in American history, i.e., an expansion that will reach a record 121 months in length in July 2019.⁴⁷ A downcycle (recession) has not yet intruded into their life to date, but it will eventually. It is too soon to assess how such an eventuality will shape this generation. It is also too soon to specify its full temporal span. To say the least, Generation Alpha remains a work in progress.

2020s: First Twenty-First Century Generation

Gen Alpha is the third post-World War II generation to be minority white, following Gen Y and Gen Z. It is likely that in every successive generation

47. The expansion started in June 2009, when the Great Recession technically ended.

in the twenty-first century, whites will become an increasingly smaller minority, particularly if immigration flows are maintained. New Jersey will be leading the nation in this continuing transformation.

Born post-2012, the oldest alpha will turn seven years old in 2020, having just recently entered the state's K-12 educational system. Gen Alpha then will begin its decade-long march through elementary and high school. By 2030, when the oldest alphas turn 17 years old, they will encompass almost all of the state's school-aged population. While the majority of alphas will be children of millennials, some of the youngest—born post-2025—may well be offspring of Gen Z, since the oldest Gen Zer will turn 28 years old in 2025. This assumes that a new additional generation—post-alfas?—will not have been recognized before 2030.

Fertility-rate patterns in the 2020s will ultimately determine whether the final size of Gen Alpha represents simply a continuation of the birth “lull” evident during the post-Great Recession years, or if it will reflect a potentially more robust birth “dearth.” Certainly, its final size will also be linked to domestic and international migration patterns post-2020. Nonetheless, the decade of the 2020s will be one where school enrollment declines will be prevalent statewide, although wide variations will occur across the state's school districts. This, of course, will be a function of millennial preferences and choices of family-raising environments.

The 2020s will present the latest school-system generational challenges. As noted earlier, these challenges started with the baby boom (system expansion), followed by Gen X (system contraction), millennials (increasing diversity and new digital technology environments), and Gen Z (further diversity and total immersion in the connected, mobile information/social media world). Gen Alpha brings size-contraction challenges back into the equation as well as further majority-minority dynamics. Gen Alpha also represents a cohort totally enveloped by all predecessor technologies since birth and additionally shaped by artificial intelligence/robotics and other advances yet to be fully unveiled. Sustained increases in educational complexity will continue to confront all of New Jersey's educational systems.

Summary

New Jersey continues to be beset by major structural transformations, vividly illustrated by sustained generational succession waves. Consequently, the shelf lives of many of our pre-Great Recession assumptions and certainties have finally reached their expiration dates. In fact, the world as we once confidently knew it has long since vacated today's Garden State premises. But this is not a unique situation in which New Jersey now finds itself.

Two centuries ago, the two industrial revolutions of the 1800s facilitated the concentration of the state's population into its early industrial cities. The labor required to staff rapidly growing urban-manufacturing ecosystems was supplied by vast waves of European immigration. As a result, New Jersey's dispersed, low-density population at the start of the nineteenth century was replaced by high-density, more diverse population concentrations at the end of the century. A new economic and demographic reality unfolded.

This reigning order ultimately became unraveled by a set of sequential disruptions that took place in the twentieth century's post-World War II era. Baby boom-driven suburbanization, industrial decentralization, the emergence of a postindustrial economy, and a second great immigration wave again transformed New Jersey. An even newer economic and demographic order came into being.

But a new set of disruptions is now serving to reconstruct the very foundation of twenty-first-century New Jersey. Advancing digital technologies are not only transforming the economy but have been instrumental in defining the evermore diverse post-baby boom and post-Gen X populations. The powerful combination of technological and generational forces is now driving further multidimensional change. Once-dominant twentieth-century baby boom preferences have already been fully supplanted by twenty-first-century millennial preferences. When will the next generation “generate” new preferences in a further advancing digital world, and what will they disrupt and transform?

Appendix A

Digital-Age Advances, Demographics, and Generations

Advances in information technology became an increasingly significant input into the definition of generations at the end of the twentieth century and the beginning of the twenty-first. The postwar fertility roller coaster ride leveled off, lessening greatly the significance of birth upticks and downticks in fostering generational divides. The first generation to reflect this change was Gen Y/millennials, whose ultimate definition was predicated on the logic that this was the first population cohort born and raised in the rapidly advancing digital age (1980–2000). Indeed, the informational- and computational-technology progress made during this two-decade period has proved to be nothing less than transformative to all dimensions of society, and it has been instrumental in shaping the population cohort now known as the millennial generation. These achievements thus warrant a brief overview.

By 1980, the Apple II—the first highly successful mass-produced personal computer—was already three years old. But the next year (1981), the IBM PC was introduced; it was the IBM brand that further legitimized the placement of the personal computer on corporate America’s desktops.⁴⁸ At its heart was the Intel 8088 microprocessor chip, which had a transistor count of 29,000. To put that in perspective, it is useful to fast forward to 2017, when the newly

48. It used an operating system called MS-DOS 1.0 made by a then little-known 32-person company located in Washington State named Microsoft. “Though not a spectacular machine by technological standards, the IBM PC brought together all of the most desirable features of a computer into one small machine. It offered 16 kilobytes of user memory (expandable to 256 kilobytes), one or two floppy disks and an optional color monitor.” https://www-03.ibm.com/ibm/history/history/decade_1980.html.

introduced Apple iPhone X had a microprocessor with the equivalent of 4.3 billion transistors.⁴⁹ But however quaint and limited was the power of the 8088 microprocessor by today standards, 1981’s IBM PC ultimately proved metamorphic and laid the foundational groundwork of a revolution that would reshape the workplace and American life.

In 1986, Intel surpassed itself and introduced the 80386 microprocessor, which contained 275,000 transistors and more than one million electronic components. This increased capability led to the first major advance in desktop functionality, driven by the widespread adoption of the first killer application (or killer app) tailored specifically to the IBM PC—the Lotus 1-2-3 spreadsheet.⁵⁰ It quickly became the industry standard, further propelling the success of the IBM PC and further changing and refining basic white-collar work processes.⁵¹

Then, in 1995, Intel’s Pentium Pro microprocessor—containing 5.5 million transistors—provided another advance in desktop personal computer capability.⁵² Along with the implementation of widespread fiber optic cabling throughout America, Pentium-based computers became a window onto the internet. Concurrently, Microsoft released Windows 95, its latest operating system, and introduced Internet Explorer, which became many people’s first web browser. These advances turned out to be another game changer. By 2000, increasingly powerful desktop

49. The A11 Bionic, the iPhone X’s processor, features 4.3 billion transistors. <https://www.zdnet.com/article/inside-apples-new-a11-bionic-processor/>.

50. It was produced by the Lotus Development Corporation and originally introduced in 1983. As a historical note, Rutgers Professor Emeritus Richard K. Brail points out that the first killer app for the desktop computer was VisiCalc—a predecessor to Lotus 1-2-3—which came on the market in 1979 and ran on the Apple II. Professor Brail taught the first microcomputer class in the Rutgers planning department in 1980–81, using the Apple II and VisiCalc. Subsequently, the IBM PC and Lotus 1-2-3 became the dominant replacement.

51. Microsoft’s Excel spreadsheet, first introduced in 1987, gradually supplanted Lotus 1-2-3 in the 1990s.

52. The Pentium Pro’s microarchitecture was an advanced departure from that of the original Pentium, which was introduced in 1993 and contained 3.1 million transistors.

computers were disrupting and reshaping the very structure of knowledge-based work.⁵³

It was this two-decade period of remarkable digital advances into which millennials were born and subsequently raised. Compared with their somewhat reluctant baby boom elders, they were enveloped in their formative years by this new information technology world as it continued to progress. After the turn of the twenty-first century, when the first millennials began to enter the labor force, they were technologically attuned to evolving workplaces that were adapting to the new digital frontiers.

But the relentless odometer of technological history never pauses or stops. When the mobile-untethered smartphone era unfolded in 2007 with the introduction of the iPhone, millennials constituted one of the first wave of adopters. They were the digital front-runners of an era that suddenly started to fully unshackle workers from fixed-in-place information-technology systems. It was the Pentium 4 microprocessor, containing 125 million transistors, that initially shaped this mobile-internet-untethered period. Subsequently, in the years that immediately followed, such digital advances as tablets and iPads (2010), successively more powerful laptops and ultrabooks (2011), and 4G LTE (2011–2012) high-speed wireless broadband communications capabilities further disrupted the workplace of the past as they helped reshape knowledge-based work protocols and where that work can take place. Demographically, many baby boomers initially struggled to adapt to these disruptions, while most millennials flourished and thrived.⁵⁴ But baby boomers were no strangers to technological advancement and change. In fact, a closer look

suggests that the digital age's origins can be found decades earlier.

A Possible Baby Boom Rejoinder

Intergenerational tensions have always been an ever-present reality. And the baby boom is probably not sanguine about any assumptions or assertions of millennial digital distinctiveness. In fact, it is not impossible for the baby boom to claim it was the first generation impacted by the digital revolution, not millennials. The more stalwart baby boom advocates could make the argument that what millennials actually experienced was digital era 2.0, and that it was the baby boom generation that was enmeshed earlier in what could be considered digital era 1.0. Whatever the full merits of such assertions, the digital world did first awaken during the baby boom's peak birth years. But what opened up was a much earlier revolution—a period of digital infancy.

The first portable transistor radio was introduced when the oldest boomers were turning eight years of age, almost three decades before the introduction of the IBM PC. On October 18, 1954, the Regency TR-1 transistor radio hit the consumer market and launched the portable electronic age, marking a turning point from analog to digital. The TR-1 was a handheld device that was five inches high by four inches wide, and it weighed just 12 ounces. It could be considered the distant ancestor of today's iPods and iPhones. It was an earlier technological breakthrough, even though its scale was extremely modest. The TR-1 had a total of only *four* transistors compared with the billions in the latest smartphones. Still, it was the cutting-edge, advanced product in 1954, utilizing printed circuit boards and then state-of-the-art microcomponents.

With the transistor radio, music and information suddenly became mobile. News of the world was available anyplace, and young baby boomers could listen to music and news unrestricted by controlling adults and elders. The subsequent proliferation of transistor radios helped spark a music revolution known as rock and roll and helped spawn subsequent cultural movements. "In a burst of post-World War II

53. The huge technological leaps—semiconductors, software, and desktop computing—that were made throughout this period finally translated into higher rates of productivity economywide by the second half of the 1990s. Prosperity reigned as the new millennium approached (Neil Irwin, "Is this a Mid-1990s Moment for the Economy? Three Reasons for Optimism," *New York Times*, September 9, 2018, p.BU5).

54. The developers of these advancing technologies were baby boomers and members of older generations. But the discussion here focuses on the broad generalized behaviors of populations/cohorts at large.

innovation, the transistor radio with music for your pocket fueled a teenage social revolution.”⁵⁵

Thus, this first stage of the digital revolution influenced the basic fabric of baby boom life—just as its later stages influenced millennial life. But its impacts on the workplace, on a nascent knowledge-based economy, and on white-collar work processes prove difficult to find. Then, in the 1970s, when the baby boom was entering the labor force en masse, the introduction of the first hand-held portable pocket electronic calculator expanded the math capabilities of everyone and provided mobile computational capabilities.⁵⁶ This had a more substantial impact on work processes.⁵⁷ And, although empirical evidence is lacking, baby boomers probably were the leading adopters of this digital technology.

So, the baby boom may have a legitimate claim as being the first generation shaped by the unfolding of the digital age. The parallels between the iPhone and the transistor radio (and then hand-held digital calculators) are substantial, with both untethering users from fixed-in-place systems. This “lends credence to the old adage ‘the more things change, the more they stay the same.’”⁵⁸ Still, the baby boom struggled to keep pace with millennials as digital era 2.0 transpired.

55. <https://www.smithsonianmag.com/smithsonian-institution/sixty-years-ago-the-regency-TR-1-Transistor-Radio-Was-the-New-It-Gift-For-the-Holiday-Season-180953345/>. “Radio, once a family activity, where everyone gathered around a single static machine, could now become a solitary pursuit, one that followed a person wherever they went.”

56. Integrated circuit development advances led to the “calculator on a chip.”

57. <https://www.si.edu/spotlight/handheld-electronic-calculators/introduction>.

58. <https://www.smithsonianmag.com/smithsonian-institution/sixty-years-ago-the-regency-TR-1-Transistor-Radio-Was-the-New-It-Gift-For-the-Holiday-Season-180953345/>.

The Garden State Effect

As a complete aside, the early digital era—and the advances that followed—had unique ties to the Garden State. It was in December 1947 that the transistor was successfully demonstrated at the Bell Labs headquarters in Murray Hill, New Jersey. As a result, the three scientists at Bell Labs credited with the transistor’s discovery/invention received the Nobel Prize in Physics in 1956. Bell Labs was the research and development wing of American Telephone and Telegraph (AT&T); its many facilities in New Jersey were often dubbed “genius factories.” “In the decades before the country’s best minds began migrating west to California’s Silicon Valley, many of them came east to New Jersey, where they worked in capacious brick-and-glass buildings located on grassy campuses. ... At the peak of its reputation in the late 1960s, Bell Labs employed about fifteen thousand people, including some twelve hundred PhDs. Its ranks included the world’s most brilliant (and eccentric) men and women. In a time before Google, Bell Labs sufficed as the country’s intellectual utopia. It was where the future, which is what we now happen to call the present, was conceived and designed.”⁵⁹ The transistor, the laser, digital communications, and cellular telephony all emerged from Bell Labs, and are the technological foundations of the information age that ultimately shaped millennials. Thus, suburban New Jersey can take credit as being instrumental in transforming—nationally and globally—twentieth- and twenty-first century digitally influenced demographics, particularly generational change.

59. Jon Gertner, *The Idea Factory: Bell Labs and the Great Age of American Innovation* (New York: Penguin Press, 2012), p.1.

Appendix B

2017 Generational Profile

Table B-1 presents the six generations in 2017 as detailed by data from the Census Bureau's 2017 American Community Survey for New Jersey. The table starts with pre-baby boomers and then successively moves down through each younger generation.

The pre-baby boom (born before 1946) was predominantly white (non-Hispanic)—73.9 percent—and totaled just 9 percent (approximately 800,000 persons) of the state's population in 2017. At the same time, there were 2.1 million baby boomers (born 1946–1964). Ranging in age from 53 to 71 years, they made up the largest (and second oldest) generation, accounting for 23.3 percent of the state's total population of 9.0 million persons; 66.3 percent were white (non-Hispanic). Second in size (just over 1.9 million persons) and share (21.4 percent), and third in generational age, Gen X (born 1965–1980) was between

37 and 52 years of age, and 52.0 percent were white (non-Hispanic).

Millennials (Gen Y, born 1981–1996) totaled just under 1.9 million persons, 20.8 percent of New Jersey's total population. They ranged in age between 21 and 36 years, and 47.6 percent were white (non-Hispanic). Gen Z, originally termed post-millennials (born 1997–2012), was between 5 and 20 years of age. This generation consisted of just under 1.8 million persons, with 48.1 percent white (non-Hispanic).

Finally, Generation Alpha, born 2013 to date (2017, the last year for which data are available as of this analysis), consisted of only about one-half million persons (5.8 percent of total) but was just in its initial stages of formation. Only 43.3 percent were white (non-Hispanic).

TABLE B-1

New Jersey Population and White Non-Hispanic Share by Generation, 2017

Generation	Birth Years	Age Range	Total	Share of Population (%)	Percentage White, Non-Hispanic (%)	Median Age
PRE-BABY BOOM	Pre-1946	> 71	809,948	9.0	73.9	NA ^a
BABY BOOM	1946–1964	53–71	2,094,487	23.3	66.3	62
GEN X	1965–1980	37–52	1,928,130	21.4	52.0	45
MILLENNIALS (GEN Y)	1981–1996	21–36	1,869,103	20.8	47.6	28
GEN Z	1997–2012	5–20	1,782,258	19.8	48.1	13
GEN ALPHA	2013–2017	< 5	521,718	5.8	43.3	2
TOTAL	—	—	9,005,644	100.0	55.1	40

Notes: NA = not applicable.

Source: Data derived from the American Community Survey by Will Irving, Rutgers University.

Appendix C

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