

# Texas' Education Challenge: A Demographic Dividend or Bust?

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**Abstract:** Texas is positioned to harness a demographic dividend—a productivity boost enabled by human capital investments in its outsized minority youth cohorts. To do so, I argue, Texas' political leadership must act decisively and boldly to close achievement gaps along racial and ethnic lines and to raise college completion levels.

Drawing on selective national and international comparisons, I show that Texas is falling behind in college completion rates even as the statewide share of graduates continues to inch up. Racial and ethnic differentials are more troubling because the largest gaps correspond to the fast-growing Hispanic population. Underinvestment in higher education has created a college squeeze that will constrain Texas' ability to harness a demographic dividend.

## Introduction

Texas has a vital resource that gives it a decided advantage over all other US states—namely people. Holding second place based on size, Texas is growing at a faster rate than the six largest states, including top-ranked California. From 1970 to 2010, Texas' population more than doubled, rising from 11 million to 25 million, while registering a 21 percent increase between 2000 and 2010 alone (Mackun and Wilson 2011; Murdock et al. 2003). This impressive demographic growth bolstered the state's political influence in Washington (with 12 additional seats in Congress since 1970) and fomented economic growth via increases in production, consumption, and government expenditures. Human capital investments will determine whether the state's expanding population becomes an economic asset or drag on social resources (Combs 2014; Finney, Perna, and Callan 2014; Perryman Group 2007).

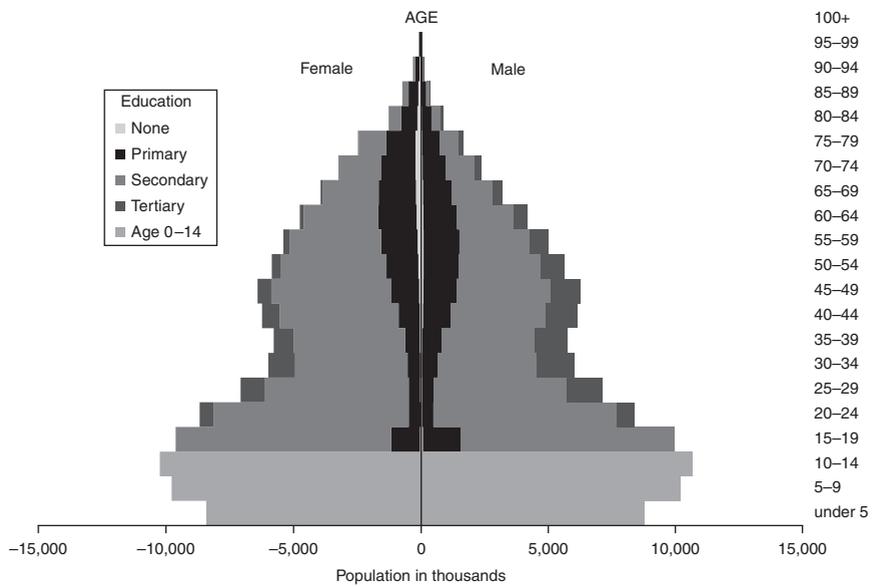
Texas' demographic growth has been accompanied by brisk ethno-racial diversification largely due to a burgeoning Hispanic population and below-replacement

Anglo fertility. In 1980, Anglos composed two-thirds of the state population; by 2010, the share had dropped to 46 percent, rendering Texas the fifth majority-minority state. Although the black population share remained relatively stable at about 11.5 to 12 percent since 1980, the Hispanic population share rose from 21 percent to 38 percent and is projected to grow well into the future (Murdock et al. 2003). That Latinos are the primary engine of population growth and diversification has led to numerous claims linking the future of the state (and the nation) to the Hispanic social narrative—noting both the challenges and opportunities posed by a relatively young population that historically has lagged in educational attainment (Lumina Foundation 2012; Tienda and Mitchell 2006; You and Potter 2014).

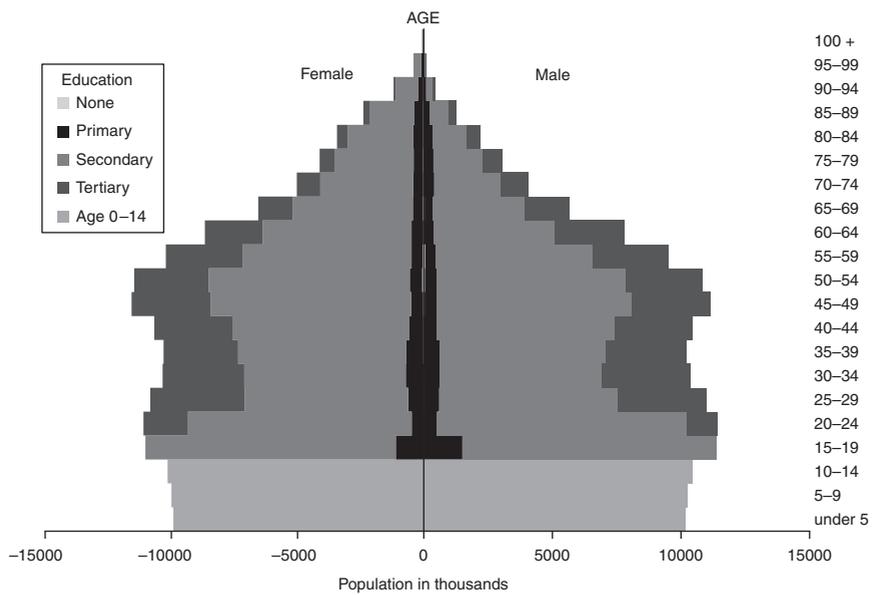
The United States has been down this road before and emerged economically and politically stronger because impressive investments in higher education allowed the nation to harness a demographic dividend—a productivity boost garnered when college attainment rates of the outsized baby boom cohorts surged as fertility rates fell (Gribble and Bremner 2012; Ross 2004; Tienda and Alon 2007). In 1950, just 6 percent of the US population ages 25 and older attained a college degree compared with 25 percent in 2000, and 28 percent in 2010 (Ogunwole, Drewery, and Rios-Vargas 2012). US industrial output was six times larger in 2000 than in 1950 and total output expanded more than fivefold (Cox and Alm 2001). The United States retains first place as the largest economy based on nominal gross domestic product (GDP). However, China, with a population four times as large, is gaining ground and based on GDP adjusted for purchasing power parity, has caught up.<sup>1</sup>

Three coincident occurrences catapulted the United States to its hegemonic economic and political status in the aftermath of World War II. First, Congress passed the G. I. Bill (P. L. 78–346), which among other benefits, provided tuition and living expenses that allowed thousands of veterans to attend college. Between 1950 and 1961, undergraduate enrollment of full- and part-time students doubled, many of them veterans of World War II and the Korean War (Gumport et al. 1997). Second, triggered by the Soviet Union’s successful launch of Sputnik in 1957, the federal government consolidated support for research and development and created the National Science Foundation. Robust federal investments in research and science education continued and were further bolstered during the 1980s in response to growing competition and technological innovation in Asia (National Research Council 1995). Third, during the 1960s through the mid-1970s, American higher education witnessed a growth spurt, which Gumport et al. (1997) describe as a period of “massification” both because of broadened access to historically underrepresented ethnic and income groups and because the number and carrying capacity of two- and four-year postsecondary institutions expanded. Buoyed by these concurrent trends, by the mid-1970s, undergraduate enrollment quintupled (Gumport et al. 1997).

Figure 5.1 illustrates how the tripartite strategy consisting of the GI Bill, sizable federal research and development investments, and unprecedented expansion of public higher education infrastructure played out, fomenting the stock of human capital. The age–education pyramids reveal the cohort-specific population shares



**Figure 5.1a** US Age-Educational Attainment Pyramid, 1970.  
 Source: Adapted from Lutz and KC (2011), using online tool to generate US pyramids.



**Figure 5.1b** US Age-Educational Attainment Pyramid, 2010.  
 Source: Adapted from Lutz and KC (2011), using online tool to generate US pyramids.

that completed primary, secondary, and postsecondary schooling. In 1970, the baby boom cohorts (ages 6–24 at the time) were in their prime years of school attendance and the beneficiaries of the democratization and expansion of US higher education; by 2010, the oldest boomer cohorts were approaching retirement, as evident by the large cohorts between the ages of 45 and 64. A comparison of the two age–education pyramids reveals the fruits of these investments in higher education: between 30 and 33 percent of the boomer cohorts attained baccalaureate degrees. In 2010, roughly one-third of youth ages 25–34 had received a BA or higher degree;<sup>2</sup> in 1970, by comparison, only 11 percent of persons ages 25–34 had attained a BA degree or higher (US Census Bureau 1970).

As beneficiaries of the democratization of postsecondary education, the out-sized baby boom cohorts boosted the nation’s human capital stock, expanded the middle class and fueled economic growth (Gumport et al. 1997; National Research Council 1995). Large numbers of better-educated workers enabled the United States to harness a “demographic dividend,” that is a productivity boost realized via educational investments in the large birth cohorts, whose higher productivity and lower fertility permit higher savings and capital investments. But demographic dividends are not automatic; they require sustained investment in quality education so that all youth can achieve their maximum productivity as workers. Since 1990, however, gains in educational attainment have slowed and hindered the rate of technological innovation and economic growth (Gordon 2013). This is not the path forward for either the nation or for Texas.

Several recent reports argue that the economic vulnerability of the fast-growing Hispanic population puts the state’s (and the nation’s) long-term economic competitiveness at risk (Finney, Perna, and Callan 2012; Mather and Jarosz 2014; Perryman Group 2007), but this need not be so. Population growth replenishes the labor force with new workers, but today international competitiveness depends more on the *quality* of labor than on sheer quantity of workers. Texas’ rapid demographic growth and vast economic and natural resources position the state to harness a demographic dividend by investing in its swelling school-age population; however, state leaders must act decisively and boldly to boost college completion rates for all groups, especially the burgeoning Latino population. Put differently, as one of the few states projecting large increases in the number of high school graduates, Texas has the potential to turbocharge its economic engines by raising college completion rates (Lumina Foundation 2012; WICHE 2013). Projections regarding the skill requirements of new labor force entrants underscore the need for Texas-size investments in higher education in order to maximize the quality and productivity of the state’s future workers (Combs 2014). Accordingly, I focus on postsecondary training, with due attention to educational progress in the early years.

### **Education Landscape: Two Steps Forward and Some Back**

The most important financial responsibility of state and local governments is the development of schools and universities—educational institutions generate

the human capital required for sustained economic growth. Texas fares poorly on educational expenditures, however, ranking forty-fourth among states and the District of Columbia in 2010.<sup>3</sup> As in many states, the Great Recession took a formidable bite out of educational budgets in Texas, but the state has been slow to restore K–12 funding to prerecession levels. Overall per pupil investments were 14 percent below the national average between 2011 and 2012 and instructional per pupil investments were lower still at 21 percent (see table 5.1).<sup>4</sup> Texas is among 35 states where inflation-adjusted investment per student between 2013 and 2014 remained well below the 2008 average, and among 14 states where the funding gap exceeded 10 percent (Leachman and Mai 2014).

Despite fiscal constraints in education spending, including many waivers to exceed the state's 22-student cap, the pupil–teacher ratio places Texas in the middle of the distribution of US states. Remarkably, the state has witnessed steady gains in student achievement, as evident in the scores on the 2011–2012 National Assessment of Educational Progress. Texas eighth graders scored on par with the national average in reading and surpassed the national average in math proficiency, but remained below the national average in science.<sup>5</sup> Some analysts worry that achievement gains of Texas students may be diminished in the future owing to a \$5 billion reduction in public education budgets authorized by the 2011 Legislature that was subsequently only partially restored (Smith 2014a). Balancing state budgets on the shoulders of future workers, while politically expedient, is economically unsound policy because it undermines the potential for harnessing a demographic dividend (Finney, Perna, and Callan 2014; Gribble and Bremner 2012).

Partly due to vigorous demographic growth, Texas has been producing out-sized *numbers* of high school graduates—more than any other state in the union. Although graduation *rates* have converged vis-à-vis those of the top-ranked states (National Center for Public Policy and Higher Education 2010), they trail the national average—in some places by a considerable margin.<sup>6</sup> Furthermore, the number of diploma recipients is expected to continue growing through 2025, providing a large pool of potential college students for the state to fuel economic productivity and long-term growth (Smith 2014b; WICHE 2013). Importantly,

**Table 5.1** Selected Educational Indicators: Texas and United States, 2011–2012

	<i>Texas</i>	<i>US average</i>	<i>Difference</i>
Total per pupil expenditure	\$10,541	\$12,201	–\$1,660
Total per pupil instructional expenditure	\$5,143	\$6,512	–\$1,369
Student/teacher ratio	15.4	16.0	–0.6
NAEP: % proficient or above			
Grade 8 math %	36	33	3
Grade 8 reading %	28	29	–1
Grade 8 science %	23	27	–4
Public HS graduation rate	66.9	70.5	–3.6
High ACT/SAT scores per 1,000 high school grads (2007)	143.3	188.5	–45.2
% 18- to 24-year-olds enrolled in college (2009)	31.6	36.2	–4.6

*Source:* Common Core of Data; National Center for Education Statistics, [NCES.ed.gov/programs/stateprofiles/](http://nces.ed.gov/programs/stateprofiles/); National Center for Higher Education Management Systems, [www.higheredinfo.org](http://www.higheredinfo.org).

the composition of high school graduates tracks the rapid diversification of the state, with Anglos representing a declining share of diploma recipients and Hispanics projected to account for more than half of the state's college graduates by 2017 (WICHE 2013). This development supports claims that Hispanics will figure prominently in Texas' economic future, but in what ways depends crucially on human capital investments in the burgeoning school-age population. There has been good progress on this front as well: the Texas Education Agency (2014) reports a 50 percent reduction in the Anglo–Hispanic graduation gap between 2007 and 2012.<sup>7</sup>

Improvements in high school graduation rates were not matched by college enrollment rates of 18- to 24-year-olds, however. In part this is because the large high school graduation cohorts have outstripped the carrying capacity of the higher education system (Tienda and Sullivan 2009). However, rising tuition and weak financial aid programs also stymied college attendance (Creusere et al. 2014). The Center for Public Policy Priorities (2012) reported that funding for full-time equivalent students has stagnated at 1990 levels in real terms while tuition has quadrupled. These trends effectively restrict college access for low-income students by shifting costs to families with limited ability to pay. That the major need-based program, Texas Grants, was cut by 10 percent for the 2012 and 2013 fiscal years further aggravates the college squeeze low-income working-class families face.

Academic preparation also contributes to college access and success. Finney et al. (2012) document formidable racial and ethnic disparities in college preparedness, which is a matter of concern, given the state's evolving demography (table 5.2). More than one in four Anglo high school seniors enrolled in advanced placement or dual enrollment classes that qualify for college credit, but lower shares of Hispanics (21 percent) and blacks (18 percent) did so. Furthermore, about half of Texas black twelfth graders achieve college-level proficiency in English and mathematics, and Hispanic high school seniors do not fare much better, with about half achieving proficiency in English and 58 percent in math. By comparison, 70 percent of Anglo twelfth graders qualify as college ready based on their English proficiency and 78 percent do so in math. These proficiency gaps are worrisome because they portend lower college success for the groups on whose productivity the future Texas economy will rely.

Much to its credit, in 2000, the Texas Higher Education Coordinating Board (THECB) launched *Closing the Gaps by 2015*, an ambitious human capital initiative that, among other goals, sought to raise postsecondary participation rates, close racial and ethnic attendance gaps, and increase completion rates by 2015

**Table 5.2** Texas Racial and Ethnic Disparities in College Readiness, 2010

	<i>Anglo</i>	<i>Black</i>	<i>Hispanic</i>
% enrolled in advanced courses or dual enrollment courses	29	18	21
% upperclassmen who took at least one AP or IB exam	25	13	17
% proficient in English language arts	70	51	52
% proficient in mathematics	78	49	58

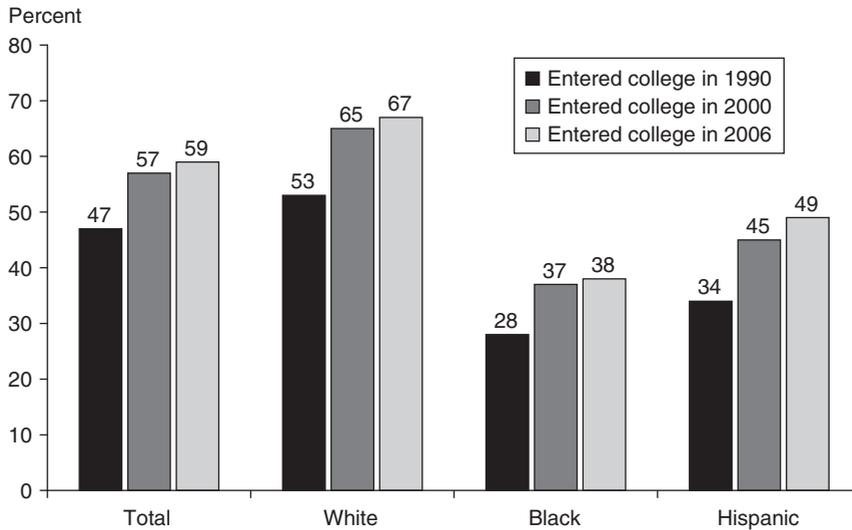
Source: Finney, Perna, and Callan (2012).

(THECB 2000).<sup>8</sup> Specifically, the plan sought to raise postsecondary enrollment at public, private, and career institutions by 630,000 students above the 2000 level, which represents an increase from 5.0 to 5.7 percent of the projected state population in 2015 (THECB 2014:4).<sup>9</sup> Importantly, the plan established a tracking system to evaluate progress against goals.

The economic importance of *Closing the Gaps* cannot be overstated. Based on a comprehensive evaluation of the initiative, a report by the Perryman Group (2007) estimated that achieving the plan's goals would add more than 1 million jobs and almost \$2 trillion in economic output to the state economy by 2030. This optimistic assessment was prepared before the Great Recession, which slowed progress toward *Closing the Gaps* goals, as education budgets were slashed (Leachman and Mai 2014). Although the report concedes that the Texas economy will likely witness moderate growth over an extended period because of its scale and incremental improvements in human capital, it also emphasizes that the evolving demographic patterns could undermine prosperity unless racial and ethnic disparities in postsecondary attainment are closed (Perryman Group 2007).

Leaving aside the adequacy of the goals relative to projected workforce requirements (Combs 2014), college participation trends reveal a mixed record. On the one hand, enrollment goals for blacks were met early and currently exceed the plan. On the other hand, targets for Hispanics will be missed by a whopping 47 percent at two-year institutions and 20 percent at four-year institutions, according to the 2014 progress report (THECB 2014: appendix table A-1). Furthermore, postsecondary participation of Anglo students fell continuously from 2008 to 2012, which reflects the evolving demography of Texas high schools. Should this trend continue, Anglo college enrollment also is projected to fall below the 2015 enrollment targets. For Latinos, however, the three-year drop in postsecondary enrollment is a worrisome development because the growing number of high school graduates potentially could replenish shrinkage in the supply of Anglo students, and this opportunity seems to be at risk.

*Closing the Gaps* also aspired to increase the annual number of baccalaureate degrees awarded from 57,000 to 104,000 by 2015 (THECB 2000:11). On this metric, Texas can claim victory both for twice raising the goals and subsequently exceeding them well before the end of the plan. Texas public and private institutions awarded 120,000 baccalaureate degrees in 2013 while also registering gains in the *number* of degree recipients for all demographic groups (THECB 2014:13).<sup>10</sup> Because of large differences in group size and growth as well as differences in propensity to enroll, rates are better gauges of progress toward raising degree completion. Unlike period rates, which include stop-out episodes of varying durations as well as dropouts in any given year, cohort measures assess persistence and completion for students who enrolled in a given year. Figure 5.2 shows the percentages of first-time freshmen who enrolled in a baccalaureate degree-granting public institution and completed the program of study within six years—corresponding to 1996, 2006, and 2012, respectively, for the three enrollment cohorts. That the 1990 enrollment cohort preceded *Closing the Gaps* plan and the 2000 and 2006 cohorts enrolled while the plan was in progress provides some insight into its success boosting completion rates.



**Figure 5.2** Percentage of Full-time, First-time Freshmen Receiving a Bachelor's Degree Within Six Years of Enrollment at a Texas Public University.

Source: Creusere et al. (2014), p. 68.

Three generalizations are warranted from these data. First, cohort completion rates rose over time, but especially between 1990 and 2000. Whereas less than half of the 1990 freshman cohort graduated in six years, between 57 and 59 percent, respectively, of 2000 and 2006 first-time matriculants received baccalaureate degrees six years later. Second, six-year graduation rates appear to have leveled off between the 2000 and 2006 enrollment cohorts.<sup>11</sup> Third, cohort completion rates rose for all demographic groups, but large differentials persist. Nearly two-thirds of first-time Anglo freshmen that enrolled in college since *Closing the Gaps* was implemented received a BA degree within six years compared with 37 to 38 percent of blacks and between 45 and 49 percent of Hispanics. *Closing the Gap* can be partially credited for the rise in six-year completion rates for all groups, but not for narrowing racial and ethnic differences, which is a unifying goal of the plan. In fact, the black–white cohort completion gap rose steadily from 25 percentage points before *Closing the Gaps* to 29 percentage points for the 2006 enrollment cohort (2012 degree recipients).

Success of the plan will ultimately be measured via changes in the stock of college-educated adults, which has been rising over time. As shown in table 5.3, I focus on young adults ages 25–34 because most have completed their schooling. Except for a modest decline in 1990, both Texas and the nation have experienced slow gains in BA attainment rates since 1980. However, in spite of the successes achieved by *Closing the Gaps* plan, the US–Texas gap in baccalaureate attainment widened from less than 1 to more than 5 percentage points. Approximately one-quarter of 25- to 34-year-old Texans earned a baccalaureate degree in 1980 versus 31 percent of the national age cohort. That Texas lags the nation on this metric

**Table 5.3** Percentages of 25- to 34-Year-Olds with a BA or Higher: Texas and United States, 1980–2010

	1980	1990	2000	2010
United States	23.3	22.8	27.6	31.2
Texas	22.8	21.5	23.6	26.0
Difference	-0.5	-1.3	-4	5.2
<i>Texas subgroups</i>				
Anglo	28.7	28.4	34.2	37.4
Black	12.6	13.4	16	19.9
Latino	7.8	8.2	9.3	11.9

Source: Ruggles et al. (2010), Integrated Public Use Microdata Series: Version 5.0 [Machine-readable database] (Minneapolis: University of Minnesota).

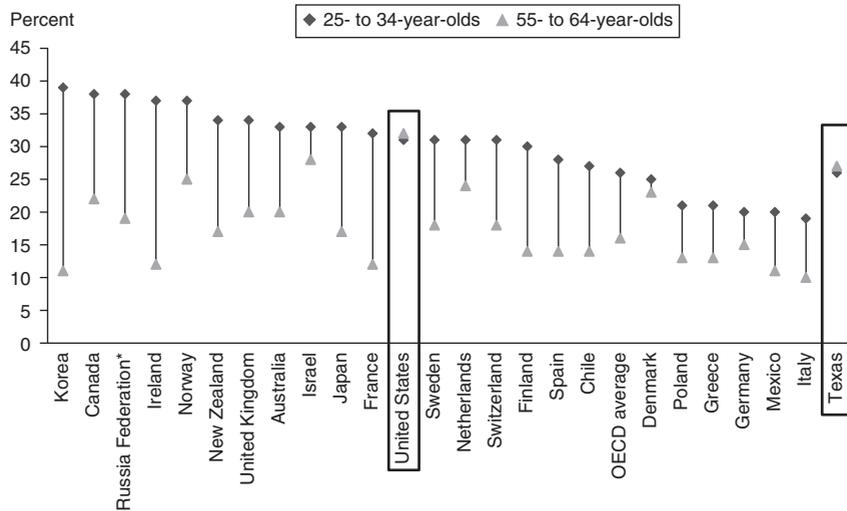
of human capital partly reflects the influx of low-skill immigrants in this age group, and relatedly, the state's rapidly changing demographic composition, as evident by unequal college attainment gains along racial and ethnic lines.

Between 1980 and 2010, the share of college-educated Hispanic 25- to 34-year-olds rose 4.1 percentage points, less than half the gain of Anglos and well below that of comparably aged blacks. Despite gains in baccalaureate completion rates, the black–white gap also widened slightly over the period, from 16 percentage points in 1980 to roughly 18 points in 2010. For Hispanics, the shortfall in the cohort college completion rate rose from 21 to 25 percentage points over the same period. These trends are worrisome in light of the state's changing demographic composition.

### A Texas-Size Challenge

Lawmakers should be concerned that Texas is losing ground with regard to its human capital stock relative to older cohorts, relative to the national average, and relative to other nations, including those with comparably sized economies. Figure 5.3, which compares BA completion rates between adults ages 25–34 and 55–64 in 2010, starkly illustrates this point. For countries where BA attainment rates are rising, the percentages completing degrees are higher for the younger cohort than the older cohort. As one of the largest state economies in the nation, behind New York and California, Texas is often compared with other nations of comparable size. The US Department of Labor estimated Texas GDP at \$1,463 million in 2012, which qualifies the state for thirteenth rank, behind Australia but ahead of both Spain and South Korea.<sup>12</sup> Yet, Texas lags all these nations both in its college stock and in the direction of change in the percentage of BA recipients.

Although the United States remains one of the most highly educated Organization for Economic Cooperation and Development (OECD) nations, it is losing ground relative to its OECD peers because most nations are progressing faster at raising BA attainment rates. For the OECD as a whole, the BA attainment rates of 25- to 34-year-olds were 10 percentage points higher compared with 55- to 64-year-olds: 26 and 16 percent, respectively. By comparison, the United States progressed slightly on this metric because there was little change



**Figure 5.3** Population Ages 25–34 and 55–64 with a Bachelor's Degree or Higher: Selected OECD Nations and Texas, 2010.

Note: \* Year of reference: 2002.

Source: Organization for Economic Cooperation and Development Table A1.3a ([www.oecd.org/edu/eag2012](http://www.oecd.org/edu/eag2012)); Texas data: American Community Survey, 2010 one-year estimate.

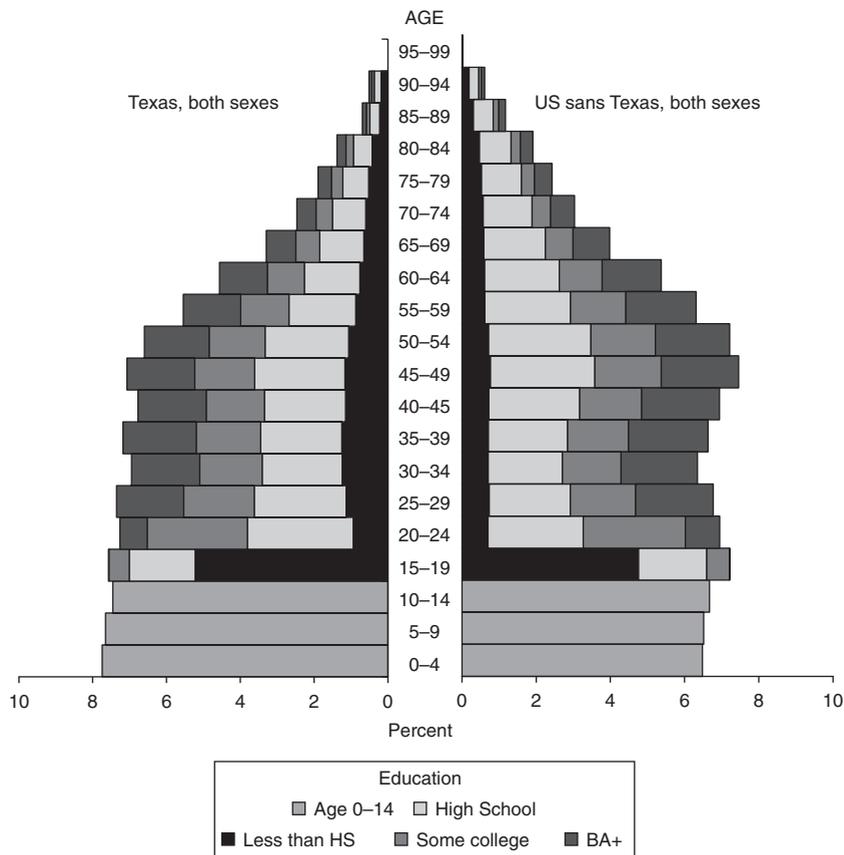
in the cohort shares completing baccalaureate degrees, as evident by the overlapping triangles and squares in figure 5.3. Consequently the United States is lower ranked—behind Korea, Canada, Russia, and Norway—in the percentages of 25- to 34-year-olds completing four-year college degrees. For perspective of how far the United States has slipped in college attainment, the BA completion rates of adults ages 55–64 versus 25–34 are instructive: The nation ranks fourth out of 36 nations for the older cohort and twelfth for the younger cohort (OECD 2013).

South Korea, which spends a higher share of GDP on higher education than the United States (OECD 2012), offers a powerful lesson for Texas because its economy is of comparable size and because it succeeded in harnessing a demographic dividend by making formidable human capital investments—in higher education in particular—following a devastating civil war (Ross 2004). The dividend is delivered through growth in labor supply, which is enhanced when the large cohorts attain high levels of education, as well as higher savings from more productive workers, and improvements in health and well-being (Gribble and Bremner 2012). No other OECD country witnessed an inter-cohort improvement in BA attainment comparable to South Korea. In 1980, only 11 percent of South Koreans were college graduates (ages 55–64 in 2010), but over the next 30 years, Korea boosted its BA attainment rate to 39 percent among 25- to 34-year-olds—one of the highest among OECD nations. By comparison, only 26 percent of Texans ages 25–34 are college graduates.

The lesson for Texas is that South Korea's unwavering commitment to investment in education allowed it to surpass its more industrialized peers in human

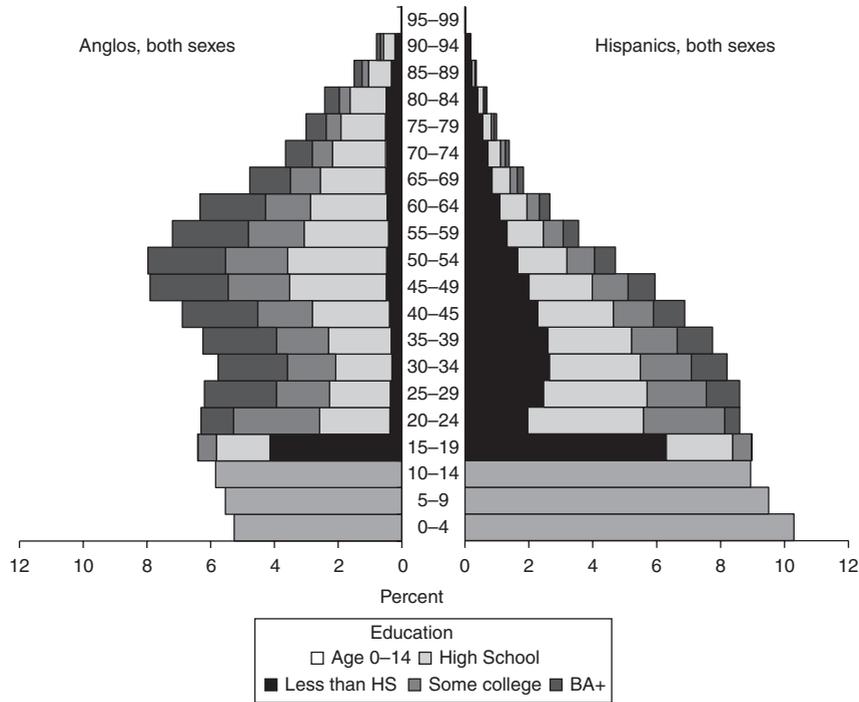
capital growth. Given its vast natural resources and rapid demographic growth, Texas is positioned to harness a demographic dividend by preparing its burgeoning youth population to compete for the projected surge in jobs requiring higher education (Combs 2014). Whether this goal materializes is highly uncertain because, even using a two-year college threshold, the degree attainment rates of black and Hispanic adults ages 25–34 show little improvement compared with those of their ethnic counterparts ages 45–54. Two- and four-year degree attainment rates among older and younger black and Hispanic residents are flat—27 and 16 percent, respectively (WICHE 2013).<sup>13</sup>

Given these trends, Texas is on the brink of squandering a demographic dividend by underinvesting in its formidable pool of high school graduates. The Center for Public Policy Priorities (2012) projects that in 2020 over half the state's jobs will require some postsecondary schooling; despite the ambitions of *Closing the Gaps*, the state is not on track to produce the required number of graduates. Figures 5.4 and 5.5 recap the challenge ahead. Figure 5.4 contrasts the state's



**Figure 5.4** Texas and US Age-Education Profiles, 2010.

Source: ACS, 2010 one-year estimate.



**Figure 5.5** Texas Age-Education Profiles: Anglos and Hispanics, 2010.

Source: ACS, 2010 one-year estimate.

age-education profile against the national average (sans Texas), and figure 5.5 compares the Anglo-Hispanic attainment gaps. The age pyramids pool men and women to facilitate comparisons by geography and demographic groups.

The legacy of higher education expansion as the baby boom cohorts came of age is clearly evident in the age-education pyramid for the nation. BA attainment rates among the near-retirement cohort—ages 55–64 in 2010—approached 30 percent, which is an impressive achievement given the large numbers involved. In virtually all age groups, however, Texas lags the nation in college participation and completion rates (Finney, Perna, and Callan 2014). Creusere et al. (2014) report that Texas college completion rates are well below those of other large states, including New York, California, and Florida—all hosts to large immigrant populations.

By comparison to the nation, the relative youthfulness of Texas' population presents an enormous opportunity for future educational investments: 23 percent of Texas residents were ages 14 and under in 2010 compared with the national average of 20 percent. But Texas has a poor record in student progression through the secondary and postsecondary education pipeline. Less than 14 percent of the state's ninth graders complete high school on time, go directly to college, and graduate within six years of enrollment (Creusere et al. 2014). This average conceals large racial and ethnic differences: 20 percent of white ninth graders

but only 10 and 11 percent of black and Hispanic ninth graders complete college within 10 years of beginning high school. This dismal record places Texas near the bottom—fifth from last place—among states on this educational metric.

Large and persisting racial and ethnic differences in educational attainment should concern education and political leaders because the fastest-growing groups are also the most vulnerable. Latinos are the prime example because they trail Asians and Anglos on many measures of social and economic well-being (Mather and Jarosz 2014). Yet, the swelling Hispanic population also provides the state an opportunity to harness a demographic dividend because the Anglo school-age population is rapidly shrinking, as figure 5.5 shows. Texas is unique in this respect because of its rapid growth, but whether the expanding youth population becomes an asset or liability remains uncertain.

The age–education profile for the Anglo population shares several features with the national average in figure 5.4, including large shares of college-educated boomers, rising shares of seniors, and shrinking youth cohorts. Compared to the nation, however, Anglo Texas is older and Hispanic Texas is younger, on average. In 2010, retirement-age seniors compose 16 percent of Anglo Texans and 5 percent of Hispanic Texans, but approximately 13 percent of the national population. At the other end of the age distribution, 29 percent of Hispanics were under age 15 compared with 17 percent of Anglos. Both the shape and shades of the age–education pyramids signal risk and opportunity for Texas' economic future, depending on progress toward closing college attainment gaps and ensuring that the swelling preschool-age and primary-school-age Hispanic cohorts are grade ready as they progress through the educational pipeline.

The Perryman Group (2007:45) admonition about the changing, growing Hispanic population bears repeating: “If these potential employees fail to receive proper training, this population increase could quickly transform from an asset to a liability.” Despite signs of improvement, Texas remains below the national average in most areas of higher education performance, and political consensus about the need to close gaps has not been matched by investments commensurate to the task, particularly during economic downturns (Finney, Perna, and Callan 2014).

That Texas Hispanics are coming of age in an aging Anglo society is another compelling reason to ramp up investments to close racial and ethnic college attainment rates, but poses yet another barrier to maximizing productivity of minority youth. Not all political leaders appreciate how much the future well-being of aging Anglos is inextricably tied to the educational attainment of the state's minority youth. Beyond generating a productivity boost, educational investments in minority youth cohorts will also help balance the support demands of the state's aging Anglo population. With ample evidence that returns on investments in education more than offset the investments themselves and that the gains are long lasting (Combs 2014; Strayhorn 2005), Texas can increase its stock of human capital and galvanize its huge economy by upgrading the K–12 system, expanding capacity at four-year institutions, making college more affordable and significantly boosting BA attainment rates. This is a tall order but not as large as the economic consequences of underinvestment (Gordon 2013; Perryman Group 2007).

### Concluding Thoughts

Texas faces formidable, but achievable, challenges to harness a demographic dividend by building its human capital stock with a particular focus on its rapidly growing Hispanic school-age population. As the US post-World War II experience attests, rapid population growth is not an insurmountable challenge for increasing human capital and can yield handsome returns (Cox and Alm 2001; Gumport et al. 1997; National Research Council 1995). Population is the foundation for creation of human capital, provided there is unwavering commitment to close attainment gaps. Following the example of South Korea, to which Texas is often compared, the state is positioned to harness a demographic dividend by redoubling its commitment to raise BA completion rates to the national average and closing racial and ethnic performance and attainment gaps. Beyond its value in maintaining the state's competitiveness in the global economy, investment in higher education is a social commitment to the well-being of future generations. The opportunity to harness a demographic dividend is not open-ended, however; Mexican fertility is approaching replacement, and the fertility of US immigrants also has been on a downward spiral, especially since the Great Recession (Livingston and Cohn 2012).

In hindsight, it is clear that the goals established in *Closing the Gaps* represent an important, but minimally adequate, plan to achieve the workforce needs for 2020 and beyond partly because demographic growth exceeded initial projections and partly because state education budgets sustained huge cuts in the wake of the Great Recession (Leachman and Mai 2014). These short-term funding concessions impart long-term damage to the state economy and also compromise the future of Texas' swelling minority population. Balancing budgets on the shoulders of future generations is bad public policy. Building the state's human capital stock for long-term growth requires a steadfast commitment to educational investment—even during economic downturns. Political will, not population growth and diversification, is the ultimate Texas challenge.

### Notes

1. See <http://databank.worldbank.org/data/download/GDP.pdf>.
2. US Census Bureau, Current Population Survey, 2010 Annual Social and Economic Supplement, Table 1. Educational Attainment of the Population 18 Years and over, by Age, Sex, Race, and Hispanic Origin: 2010.
3. See [https://www.census.gov/content/dam/Census/library/infographics/educ\\_2014.pdf](https://www.census.gov/content/dam/Census/library/infographics/educ_2014.pdf).
4. Morgan Smith (2014a) reported that in the 2012–2013 school year, the state's budget allowed for \$8,200 per student, falling to 47th rank.
5. That students from many Organization for Economic Cooperation and Development (OECD) nations fare better than the United States on these metrics does not bode well for long-term economic competitiveness (OECD 2014). In math, the United States ranked twenty-sixth, on par with Hungary and Russia, and in science, the United States came in twenty-first, ahead of Russia but on par with Italy and Portugal.
6. Estimates of graduation rates differ from the source, with a recent estimate from the Texas Education Agency at 88 percent (Smith 2014a).

7. This rather optimistic scenario may not withstand further scrutiny because graduation rates and dropout rates are calculated in different ways. Cohort rates that trace the share of ninth graders who graduate in four years are the most reliable, but period completion rates are often skewed because they are restricted to students who persisted to their senior year.
8. In addition to raising enrollment and completion rates, the bold initiative sought to heighten the research profile of Texas public universities compared with those of other states. Partly in response to changing demographics and to economic needs, the targets were raised in 2006 and again as specific targets (e.g., BA completion rates) were achieved (<http://www.theccb.state.tx.us/reports/PDF/1724.PDF?CFID=19557895&CFTOKEN=80754564>).
9. The 5.7 percent enrollment target was based on the projected population for 2015, which has since been surpassed. This means that the enrollment target for “success” will be lower.
10. The plan designated specific targets for associate degrees and certificates as well, but given the heterogeneity of the two-year programs, I focus on baccalaureate degrees.
11. Although it is unclear whether time-to degree has been rising, the stagnant cohort completion rates suggest this possibility. Cuts in financial aid after 2008 affected the 2006 enrollment cohort in ways that could lower timely completion rates, for example.
12. See <http://databank.worldbank.org/data/download/GDP.pdf>; [http://lwd.state.nj.us/labor/lpa/industry/gsp/gsp\\_index.html](http://lwd.state.nj.us/labor/lpa/industry/gsp/gsp_index.html).
13. See <http://www.wiche.edu/info/knocking-8th/profiles/tx.pdf>.

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