The Aging Readiness & Competitiveness Report

BRAZIL





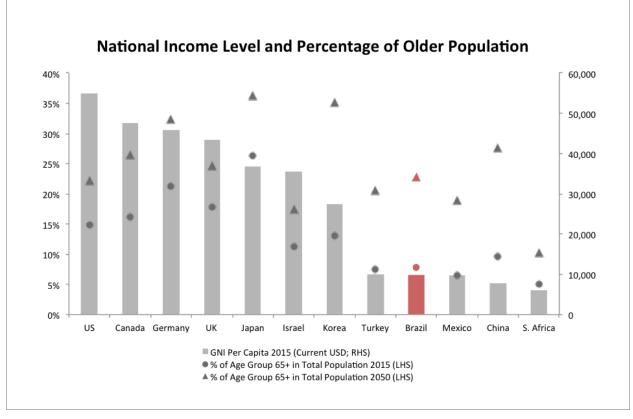
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Brazil's relatively young population is set to age rapidly over the next several decades. Brazil only recently became an "aging" society in 2012, when the share of its population age 65 and older exceeded 7 percent of the total population. As of 2015, Brazilians age 65 and older accounted for just 7.9 percent of the total population,¹ lower than the 8.6 percent of upper-middle-income country average.

¹ IBGE. http://www.ibge.gov.br/apps/populacao/ projecao/.

However, the share of the older population is projected to triple by 2050 and reach 22.8 percent, driven by improved life expectancy and declining fertility rates. Brazil's pace of aging, in terms of growth in the share of the older population, will be the fastest among all the countries covered in this study. By 2050, Brazil will have the world's fourth-largest older population, behind only China, India, and the United States.²

² UN Population Prospects 2015.



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(Sources: OECD, United Nations, World Bank)

Today's older population in Brazil enjoys relatively low levels of poverty, largely thanks to the country's generous pension system. Only 3.5 percent of Brazilians aged 65 and older live below the poverty line of USD 2.5 per day at Purchasing Power Parity, among the lowest in the Latin American region.³ The generous pensions also lead to the better financial well-being of older adults than of younger people just 4.2 percent of Brazilians age 60 and older live in poverty, less than one-third of the percentage for those ages 25 through 59.4 The generous pensions, including social security for formal-sector retirees and non-contributory pensions for rural workers and those in extreme poverty, have also contributed to Brazil's older-age workforce participation rate being lower than those in most other countries in Latin America.⁵

Aging has not yet become a matter of wide public interest in Brazil. Over the past two elections, in 2014 and 2016, not a single major candidate for president or mayor talked specifically about older Brazilians.⁶ Lack of attention to the looming demographic shift is clear in the government's failure to fully implement its policies that have been established "Brazil has excellent legal instruments in relation to its older population, but the law does not function as it should have. Good policies exist, but in practice the implementation is not sufficient."

 Maria Angelica Sanchez, former President of the Gerontology Department at the Brazilian Society for Geriatrics and Gerontology

since 1980s to protect the rights and interests of senior citizens. Early steps have been taken to improve transportation and housing accessibility and prevent elder mistreatment, but the slow pace of implementation remains an issue. However, some positive signs have come out of the government's recent efforts, including a push at the state and municipality levels for building age-friendly cities and healthcare plans oriented specifically toward older Brazilians.

The productive potential dormant in the older population still tends to fly under the radar of policymakers and the private sector. However, this could change as Brazil is projected to start to exit the "demographic bonus" ⁷ in 2020, when the ratio of the number of people ages 0 through 14 and 65 and older to the number of people ages 15 through 64

³ Mariano Bosch, Angel Melguizo and Carmen Pagés, *Better Pensions, Better Jobs: Towards Universal Coverage in Latin American and the Caribbean*, Inter-American Development Bank, 2013. https://publications.iadb.org/bitstream/ handle/11319/462/Better_Pensions_Better_Jobs. pdf?sequence=8.

⁴ Bosch et al. 2013.

⁵ International Labor Office Statistics.

⁶ Interview with Henrique Noya, executive director of the Instituto de Longevidade Mongeral Aegon, March 2017.

⁷ While there is no unified definition or measurement of "demographic bonus," it is generally considered to be a period when the proportion of people of a potentially productive age grows steadily in relation to those of potentially inactive ages.

hits an inflection point.⁸ Indeed, social awareness about the economic potential of older adults is beginning to grow, as evidenced in several recent hiring programs launched by private employers that target experienced talents. Another event to watch that will no doubt have a major effect on the older population in Brazil is pension reform, a controversial undertaking driven by the government's desire to pursue long-term fiscal sustainability, but it has attracted widespread opposition, and its success is by no means assured. Technology remains an area in which older Brazilians are lagging behind. The market for digital products specifically targeting older people is still in an early stage, but the private sector has slowly become interested in courting older consumers, especially when it comes to digital healthcare products. The government has also played a role in developing this market by funding the development of information and communication technology products aimed toward older consumers.

 ⁸ UN Population Prospects; World Bank, 2011, https://openknowledge.worldbank.org/bitstream/ handle/10986/2351/
 644410PUB00Gro00ID0188020BOX361537B. pdf?sequence=1&isAllowed=y.

Community Social Infrastructure

With a relatively young population and immediate development priorities, accommodating aging has not yet become a public policy priority. Starting in the 1980s, Brazil put in place a set of legal safeguards to protect the rights of older adults as part of its broader effort to pursue social inclusiveness, but in practice policy implementation has fallen short in areas such as transportation and housing accessibility. However, as the Brazilian population begins to age, and independence increases, support for "active aging" is gaining ground, exhibited by efforts of some local governments, like the state of São Paulo, as well as leading NGOs, to promote age-friendly cities.

Social Connection

The family is the basic social unit in Brazil. Households in Brazil are traditionally multigenerational; children often stay in their parents' home until marriage, and older Brazilians traditionally live with their children. However, an increasing number are now living alone. Since 1992, the number of people age 60 or older who live by themselves has more than tripled, accounting for 15.7 percent of the older population as of 2015.⁹ ¹⁰ While this growth has been largely driven by improved longevity, experts have noted that several other factors also could have contributed. For example, the fragmentation of families has increased as many children live in different cities from those of their parents, and more and more older Brazilians want to maintain independence in their later life and no longer perceive "living alone" as a sign of abandonment but rather one of autonomy.¹¹

Overall, older Brazilians maintain close social connections. Eighty-seven percent of those age 50 and older believe they have family members or friends who will help them when needed, the highest percentage among the five developing countries covered in this study.¹² The majority of older people feel well connected with local communities – nearly 92 percent of respondents age 50 and

⁹ IBGE, 2016. *Synthesis of Social Indicators: An Analysis of the Brazilian Population's Life Conditions.* http://biblioteca.ibge.gov.br/biblioteca-catalogo?vi ew=detalhes&id=298965.

¹⁰ Claudia Collucci. "Number of elderly that live alone triples in 20 years." *Folha de São Paulo*. December 25, 2013. http://www1.folha.uol.com. br/equilibrioesaude/2013/12/1389765-numerode-idosos-que-moram-sozinhos-triplica-em-20anos.shtml.

¹¹ Ibid.

¹² HelpAge International 2015. Global AgeWatch Index 2015. Gallup Analytics.

older in the World Values Survey said they felt like a part of their local community.¹³

Mistreatment of older adults is a significant problem in Brazil, and, according to a report from the Special Secretary of Human Rights, more than 80 percent of it occurs within the household.¹⁴ Physical aggression is reported as the most common form of mistreatment in research by police agencies and health entities, but Ana Lúcia da Silva, general coordinator of the National Council for the Elderly, also points to other issues, such as negligence and financial abuse. "Oftentimes, family members are the perpetrators," she explains, whether the mistreatment is abandonment, economic abuse, or neglect.¹⁵ While abuse can be reported to police stations, complaint-handling services lack the necessary equipment and specialized service centers.¹⁶

The aging population, with growing desire for independence, warrants supportive community social infrastructure. Following the 1988 Federal Constitution, a milestone

in the country's legitimization of social rights,¹⁷ Brazil established a set of laws to protect the rights of older adults. These provisions are aimed at creating conditions to promote their autonomy, integration, and participation in the society. In spite of the advanced legal framework, without a sense of urgency, policy implementation has been uneven, particularly in the areas of transportation, housing, and elder abuse prevention. As put by Maria Angelia Sanchez, the former president of the Gerontology Department at the Brazilian Society for Geriatrics and Gerontology, "Brazil has excellent legal instruments in relation to its older population, but the law does not function as it should. Good policies exist, but in practice the implementation is not sufficient."¹⁸ That said, recent efforts arising out of local authorities and NGOs demonstrate positive signs for improvements in supportive social infrastructure for independent, aging Brazilians.

Physical Infrastructure

Overall, lack of accessibility in both transportation and public buildings has been a major barrier to older adults' mobility in Brazil. Only 45 percent of Brazilians age 50 and older are satisfied with the public transportation system, lower than in all OECD countries as well as other developing countries covered in

 ¹³ WORLD VALUES SURVEY Wave 5 2005-2008 OFFICIAL AGGREGATE v.20140429. World Values Survey Association (www.worldvaluessurvey.org).
 Aggregate File Producer: Asep/JDS, Madrid SPAIN.
 ¹⁴ Special Secretary for Human Rights. "Data from Disque 100 show that more than 80 percent of violence cases happen within the household." June 15, 2016. http://www.sdh.gov.br/noticias/2016/ junho/dados-do-disque-100-mostram-que-maisde-80-dos-casos-de-violencia-contra-idososacontece-dentro-de-casa

¹⁵ Interview with Ana Lúcia da Silva, general coordinator of the National Council for the Rights of the Elderly. September 2016.

¹⁶ *Rede Mobilizadores.* "On the International Day of the Elderly, the country has little to celebrate." 1 October 2015. http://www.mobilizadores.org.br/ noticias/no-dia-internacional-do-idoso-pais-tempouco-a-comemorar/

¹⁷ The Elderly and Their Experience in Brazil. http:// redfame.com/journal/index.php/ijsss/article/ view/606

¹⁸ Interview with Maria Angelia Sanchez, former president of the Gerontology Department of the Brazilian Society for Geriatrics and Gerontology. September 2016.

this study.¹⁹ Buses dominate Brazil's public transportation system. However, they are tall, and older people tend to have trouble passing through their turnstiles. According to Ana Lúcia da Silva, the necessity of frequent transitions between bus routes also creates additional challenges to older adults' mobility.²⁰

Recognizing that mobility is a critical factor in maintaining independence, the Brazilian government has made some effort to address the cost of transportation. It has subsidized older people's use of public transportation since 2003, when the Statute of the Elderly was passed.²¹ Brazilians age 65 and older can use urban public transportation free of charge. When traveling on interstate buses, they are also entitled to reduced or waived fares.²² Interstate buses are required to offer two free seats for older people on every trip. When there are more than two older riders, the others receive a 50 percent discount if they earn less than double the minimum wage.²³ While the Statute of the Elderly as a whole applies to Brazilians over the age of 60, the transportation provision only applies to those over 65. For those ages 61 and 65, access to low-cost transport depends on local legislation. Cities such

as São Paulo, which had approved free transportation for those over 60, are now looking at repealing that subsidy in order to save money.²⁴

The issue of accessibility also exits at public facilities like hospitals. A study of 41 Brazilian cities examining the architectural barriers in basic healthcare units found that about 60 percent did not allow adequate access for people with functional disabilities.²⁵ A lack of uniform sidewalks has also been a challenge to safe movement of older adults and people with disabilities,26 and the residences of 24.2 percent of older people responding to a 2010 survey did not even have sidewalks (while only 13.6 percent did not have pavement).²⁷ Low-income older adults are most vulnerable. In favelas (i.e., slums within urban areas), housing is often located on hillsides and is accessed by narrow passages and steep stairs, causing significant risk of falls for older adults.²⁸

¹⁹ HelpAge International 2015. Global AgeWatch Index 2015. Gallup Analytics.

²⁰ Interview with Ana Lúcia da Silva, general coordinator of the National Council for the Rights of the Elderly. September 2016.

 ²¹ See the Statute of the Elderly at http://www.
 planalto.gov.br/ccivil_03/leis/2003/L10.741.htm.
 ²² Ana Amélia Camarano. *IPEA Texto para Discussão 1840: Estatuto do Idoso: Avanços com Contradições.* 2013.

²³ Public Policy for Social Assistance for the Elderly, 2012, http://www.desenvolvimentosocial.sp.gov. br/a2sitebox/arquivos/documentos/biblioteca/ publicacoes/volume2_Politicas_publicas.pdf.

²⁴ See, for example, Giba Bergamin, Jr. et al.
"Doria intends to re-evaluate free bus tickets for the elderly in Sao Paulo." *Folha de São Paulo*. November 18, 2016. http://www1.folha.uol.com. br/cotidiano/2016/11/1833292-doria-pretendereavaliar-tarifa-gratuita-de-onibus-a-idosos.shtml.
²⁵ World Report on Disability 2011, World Health Organization, The World Bank, http://www.who.int/ disabilities/world_report/2011/en/.

²⁶ Interview with Ana Lúcia da Silva, general coordinator of the National Council for the Rights of the Elderly. September 2016.

²⁷ IBGE, 2016. *Synthesis of Social Indicators: An Analysis of the Brazilian Population's Life Conditions.* http://biblioteca.ibge.gov.br/biblioteca-catalogo?vi ew=detalhes&id=298965.

²⁸ Housing for Older People. ILC-Brazil. http:// www.ilcbrazil.org/wp-content/uploads/2014/03/ housing_for_older-people_country-paper_brazil. pdf.

Housing

Housing is another area where implementation has lagged.²⁹ The 1994 National Policy for Older Adults defined a number of actions to provide suitable housing for older adults, including improvement of access to adequate housing and accessibility for those with decreased physical capabilities. However, as of 2010, fewer than 70 percent of Brazilians over the age of 60 lived in adequate housing.³⁰ Great regional variation also existed - around 79 percent of older people in the Southeast had adequate housing, while only 36 percent of those in the North did.³¹ In addition, interior layouts of both single-level housing and apartments are often not age-friendly or fully accessible for older adults.³² A study on universal design in 2011 revealed that out of 14 construction companies surveyed, ten had not considered offering accessible housing due to the higher cost of doing so.33

One high-profile effort to improve housing for older Brazilians is the *Minha Casa, Minha Vida* (My House, My Life) program, a flagship program of the Workers' Party administration launched in 2009. MCMV provides subsidized housing for low-income Brazilians with federal funds distributed through municipal authorities, and it sets aside 3 percent of its units for older persons and persons with disabilities.³⁴ By 2015, 1.96 million houses had been subsidized by MCMV.³⁵ While not intended exclusively for older people, MCMV has introduced important advances in housing policy, thanks to its reorganization of bureaucracy, increase in resources, and social inclusion of different populations.³⁶

Active Aging and Age-Friendly Cities

In spite of the relatively young population, the concept of "active aging"³⁷ is gaining traction in Brazilian society. Strongly advocated by leading NGOs like ILC-Brazil, "active aging" has been incorporated into some state- and municipal-level efforts to develop "age-friendly" cities and communities, particularly in the wealthier South and Southeast.³⁸ A further push was made by the federal government in

²⁹ Ibid.

³⁰ "Adequate housing" is defined by the System of Health Indicators and Accompaniment of Policies for the Elderly (SISAP-Idoso) as having fewer than two people per room, waste collection, access to the general water supply, and access to sewage systems.

³¹ SISAP-Idoso. http://www.saudeidoso. icict.fiocruz.br/index.php?pag=ficha_ sub&cod=H04P000

³² Housing for Older People. ILC-Brazil.

³³ *Portal de Acessibilidade RS.* "Real estate market will debate accessibility in conference." September 6, 2011. http://www.portaldeacessibilidade.rs.gov. br/portal/index.php?id=noticias&cod=2010.

³⁴ Housing for Older People. ILC-Brazil.

 ³⁵ Maria Rita Loureiro, Vinicius Macário and Pedro Henrique Guerra, "Legitimidade e efetividade em arranjos institucionais de políticas públicas: o Programa Minha Casa Minha Vida", *Revista de Administração Pública*, 49(6): 1531–54.
 ³⁶ Ibid.

³⁷ Active aging is defined by the World Health Organization as the process of optimizing opportunities for health, participation, and security in order to enhance quality of life as people age. (Source: WHO, http://www.who.int/ageing/active_ ageing/en/.)

³⁸ Interview with Maria Angélica Sanchez, former president of the Gerontology Department at the Brazilian Society for Geriatrics and Gerontology (SBGG). September 2016.

2013 as President Dilma Rousseff of the left-leaning Workers' Party signed the "National Commitment to Active Aging" decree, calling for the federal, state, and municipal governments to join forces to encourage active aging.³⁹

The state of São Paulo, whose percentage of people age 65 and older (8.75 percent as of 2015) is above the national average (7.9 percent),⁴⁰ stands out for having undertaken a statewide, comprehensive initiative since 2012. It created the Elder-Friendly Cities Seal to encourage cities and public and private entities that are concerned with the older population. Six hundred and thirty-seven cities have already committed to the program.⁴¹ In order to receive full recognition as an age-friendly city, a city government must also complete a sequence of steps that include creating a City Council for the Elderly, completing policy assessments, registering all low-income older adults in the public services system (CadÚnico) and at community health centers (UBS), and other actions deemed appropriate by the individual city.⁴² The program is a joint effort of different state ministries. It has financial backing from the State Fund for the Elderly, which receives funds from the state of São Paulo, the federal government, and city governments, as well as donations and fines collected for elder abuse.⁴³ This fund, as of 2017, has more than BRL 10 million (USD 3.05 million).⁴⁴

The state of São Paulo is also working to expand the network of social assistance, particularly through Community Centers for the Elderly (CCIs) and Day Centers for the Elderly (CDIs).45 The state is aiming to build 195 CCIs, which provide independent older adults (age 60 and older) with community space for leisure and socializing. It has also been working to build 103 CDIs, which provide daily care for semi-dependent people age 60 and older, prioritizing families who are unable to care for their older family members during the day due to work or study. It is steadily building and inaugurating new units, and money has been made available for more.⁴⁶ Experts argue that this effort reflects a significant movement at the local level in Brazil toward supporting older adults with larger networks of community centers and day centers.⁴⁷ This

 ³⁹ Guide for the Policies, Programs, and Projects of the Federal Government for the Elderly, 2014.
 ⁴⁰ http://www.ibge.gov.br/apps/populacao/ projecao/.

⁴¹ http://www.desenvolvimentosocial.sp.gov.br/ portal.php/programas_spamigodoidoso.

⁴² "How to Turn Into a Elder-Friendly City: Criteria for Obtaining the Elder-Friendly City Seal," State Government of São Paulo, 2012, http://www. desenvolvimentosocial.sp.gov.br/a2sitebox/ arquivos/documentos/518.pdf.

⁴³ "How to Turn Into a Elder-Friendly City: State Elderly Fund," State Government of São Paulo, 2012, http://www.desenvolvimentosocial.sp.gov.br/ a2sitebox/arquivos/documentos/832.pdf.
⁴⁴ Jornal da 3a Idade. "State Elderly Fund for SP has R\$10 million for projects registered by 3/2." January 13, 2017. http://www.jornal3idade.com. br/?p=11737.

⁴⁵ Secretary of Social Development. "São Paulo Elder-Friendly City." http://www. desenvolvimentosocial.sp.gov.br/portal.php/ programas_spamigodoidoso.

⁴⁶ http://www.florianopesaro.com.br/index.php/ governo-de-sao-paulo-libera-r-325-milhoes-paraatendimento-a-populacao-idosa/.

⁴⁷ Interviews with Ina Voelcker, International Longevity Centre-Brazil, and Emanuel de Araujo Dantas and Edvaldo Duarte Barbosa, Ministry of Social Welfare, September 2016.

is especially relevant as it becomes more common in Brazil for all adult household members to be employed, which makes caring for older adults during the workday more difficult.

Leading NGOs have also been active in cooperating with corporations and local governments to promote the development of age-friendly cities that are tailored to local needs. One interesting program is "Municipalities for All Ages," which was established in 2015 by ILC-Brazil in partnership with CPFL Energia S.A., a major Brazilian energy company. CPFL Energia finances the project under a federal policy that allows corporations to make a tax-deductible donation of up to 1 percent of their income tax to municipal funds for older people.⁴⁸ To participate in the program, municipalities must commit the funds to an initial diagnosis of the urban conditions of the cities and field studies with residents about the needs of older people in their cities. By using this process, ILC-Brazil intends to help cities create an action plan for improvements to mobility and the creation of community spaces. The first city to participate in the program was Veranópolis, in the state of Rio Grande do Sul. Having completed the initial phase, the municipality has committed to implementing the action plan that was developed for it, and it has recently joined the World Health Organization's Global Age-Friendly Cities and Communities Network.49

⁴⁸ Interview with Ina Voelcker, International Longevity Centre-Brazil, September 2016.

⁴⁹ ILC-Brazil. *Moving Towards Age-Friendly Municipalities*. http://ilcbrazil.org/news/movingtowards-age-friendly-municipalities/; ILC-Brazil. "Developing Age-Friendly Cities in Brazil." http://ilcbrazil.org/news/1414/.

Productive Opportunity

Tapping productive opportunity among the older population is not a priority for the Brazilian government, which has focused on addressing immediate development issues, such as poverty, inequality, and credit booms. Rather, actions that have emerged in recent years aiming to seize on the productive potential of older talents have been mainly driven by the private sector.

Labor Force Participation of Older People

Labor force participation among older Brazilians has dropped dramatically over the past several decades. The participation of people age 65 and older in the job market fell by nearly two-thirds in Brazil, from 60 percent in the 1970s⁵⁰ to 21 percent in 2014, mainly due to access to public pensions, social benefits, and increased payouts.⁵¹

The Brazilian government has been racing to tackle various development issues arising out of the country's rapid

economic growth over the past several decades. These challenges, including alleviating poverty and inequality and containing credit booms, have overridden all others, including productive opportunity. The government has successfully lifted millions of people out of intense poverty by establishing a full social safety net. Between 1990 and 2011, the percentage of Brazilians living in poverty (defined as an income of PPP\$2 per day)⁵² dropped by three-quarters, from 29.3 percent to 6.8 percent.⁵³ Social welfare programs - such as Bolsa Família, financial aid provided to poor families - have used direct cash payment as the primary tool to support vulnerable groups. These benefits, however, have resulted in unintended disincentives for labor force participation.

One case of such disincentives is noncontributory pensions provided by the public social welfare system since the 1990s. For example, 1) Rural Social Welfare (PSR) provides an entitlement of a pension equivalent to one minimum wage for agricultural workers, with the eligible age of 55 or older for women, and 60 or

⁵⁰ Queiroz and Lobo (2016). The Evolution of the Elderly Labor Force Participation and Retirement in Brazil 1980-2025. Preliminary Draft.

⁵¹ OECD Statistics; Queiroz and Lobo (2016). The Evolution of the Elderly Labor Force Participation and Retirement in Brazil 1980–2025. Preliminary Draft. Also, information provided by the Social Communications Division of IBGE, personal correspondence, April 2017.

 ⁵² In the term of purchasing power parity (PPP).
 ⁵³ https://ieconomics.com/brazil-povertyheadcount-ratio-at-dollar2-a-day-ppp-percent-ofpopulation.

older for men;⁵⁴ 2) Continuing Benefits Program (BPC) gives a pension equivalent to one minimum wage to people who are age 65 and older or who have disabilities, and live in households with an income below the national poverty line, which is a monthly income of less than one-quarter of the national minimum wage.⁵⁵ As the government has raised the minimum wage more than sevenfold since 1997 (from BRL 112 (USD 34) per month to BRL 937 (USD 286) per month as of March 2017),⁵⁶ these pension payouts that are pegged to the minimum wage have risen as well. According to a 2013 study by the Inter-American Development Bank, Brazil's non-contributory pensions are among the most generous in Latin America, paying retirees up to 32.6 percent of the country's GDP per capita, second only to the system in Venezuela.57

Older Brazilians tend to work in the informal sector, including those who retire from the formal sector and continue to work informally in order to avoid social security taxes and those who have been working in the informal sector in most of their lives. While there have been no studies directly examining the effect of non-contributory pensions on informal market participation among older Brazilians, according to Carmen Pagés-Serra, the Chief of Labor Markets and Social Security Unit for the Inter-American Development Bank, non-contributory pensions tend to make workforce participation decrease among older adults, even if the drop is not as abrupt as for formal-market workers.⁵⁸

Improving the Financial Literacy of Older Adults

Containing credit booms is another development priority for the Brazilian government. While over-indebtedness is a growing concern for Brazilians in general, it is particularly prevalent among older people. The age group of 65 and older has the highest percentage of delinquency at 25 percent. One factor that contributes to this over-indebtedness is the use of *credito consignado* (roughly translatable as "entrusted credit"), a type of loan that is leveraged against income

⁵⁴ Armando Barrientos. 2012. "Social Transfers and Growth: What Do We Know? What Do We Need to Find Out?" World Development 40(1): 11-20. http://linkinghub.elsevier.com/retrieve/pii/ S0305750X11001422 (November 4, 2014). ⁵⁵ Armando Barrientos and Claudio Santibáñez. 2009. "New Forms of Social Assistance and the Evolution of Social Protection in Latin America." Journal of Latin American Studies 41(01): 1. http://www.journals.cambridge.org/abstract_ S0022216X08005099 (November 30, 2014). ⁵⁶ https://ieconomics.com/brazil-minimum-wage. ⁵⁷ Mariano Bosch, Angel Melguizo and Carmen Pagés, Better Pensions, Better Jobs: Towards Universal Coverage in Latin American and the Caribbean. Inter-American Development Bank. 2013.

⁵⁸ Interview with Carmen Pagés-Serra, chief of Labor Markets and Social Security Unit for the Inter-American Development Bank. March 22, 2017. However, exceptions include small noncontributory pensions, such as those in Colombia, which can remove liquidity floors and encourage older adults to work more by allowing poor families more room to maneuver. Colombia's noncontributory pensions, however, provide less than one-sixth of Brazil's payouts (5.1 percent of GDP/ capita).

and is available to workers, retirees, and National Social Security pensioners. A credito consignado loan has lower interest rates and taxes relatively to other personal credit products and can be easily extended regardless of creditworthiness, as it is discounted directly from a person's paycheck. This often results in overreliance on the loans. According to the Ministry of Social Security, 78 percent of social security beneficiaries hold at least one credito consignado loan. Once a retiree's borrowing reaches the cap of a credito consignado loan (i.e., 30 percent of a person's income), he or she would have to resort to other credit products. As a result, many older adults, particularly those with low income and limited financial knowledge, tend to become trapped in a cycle of debt and find it increasingly difficult to meet their financial commitments.59

Academics contend that financial abuse, which often is conducted by family members⁶⁰ and currently accounts for 21 percent of elderly abuse reports, is another cause of the over-indebtedness among older adults.⁶¹ Field research conducted by the Association for Financial Education of Brazil (AEF-Brasil), a social and economic development organization, showed that family members are often the ones who urge older adults to take loans used toward satisfying consumption needs.⁶²

In response, the government is partnering with AEF-Brasil to provide financial education to retirees with an income of up to twice the minimum wage.63 The program is aimed at improving their ability to manage their incomes, protecting them from credito consignado risks, and reducing over-indebtedness. Based on the initial field study phase from 2013 to 2014, the partners have developed educational content tailored to older adults in both urban and rural contexts. From its pilot phase through the end of 2016, the project aimed to provide financial education to approximately 1,400 retirees. The city of Londrina, in the state of Paraná, joined the project in July of 2016. The workshops take place in Community Centers for the Elderly, a locally run component of the Brazilian Ministry of Social Assistance,

⁵⁹ *Germany Trade and Invest.* "Designing Financial Education Methodologies to Improve Financial Behavior among Low-income Women and Retirees in Brazil." January 8, 2016. https://www. gtai.de/GTAI/Content/DE/Trade/Fachdaten/ PRO/2015/12/Anlagen/PRO201512145006. pdf?v=1.

⁶⁰ Interview with Ana Lúcia da Silva, general coordinator of the National Council for the Rights of the Elderly. September 2016.

⁶¹ *CreatiUPF*. "Creati receives "Financial education for the elderly" workshop. http://www.creati.upf. br/index.php/noticias/92-creati-recebe-oficinaeducacao-financeira-para-idosos.

⁶² Germany Trade and Invest. "Designing Financial Education Methodologies to Improve Financial Behavior among Low-income Women and Retirees in Brazil." January 8, 2016. https://www. gtai.de/GTAI/Content/DE/Trade/Fachdaten/ PRO/2015/12/Anlagen/PRO201512145006. pdf?v=1.

⁶³ AEF Brasil. Work Plan. http://www.vidaedinheiro. gov.br/docs/-24-23-07-2015-Plano-de-Trabalho---2015_16.pdf.

and will orient students on how to improve their quality of life through good use of their retirement benefits.⁶⁴ The program is currently in 49 cities in 16 states. It is still in its pilot project stage, and its impact is being evaluated; the report was released in May of 2017. It has had notable impact, involving 6,500 people, including retirees and women who receive social assistance.⁶⁵

More broadly, financial education programs have been expanding across Brazil, with 803 financial education initiatives across the country. Of those registered, 47 percent are run by companies (private or public), 19 percent by individuals, 23 percent by government agencies, and 11 percent by NGOs. Over half of them (55 percent) are concentrated in the Southeast, 32 percent in the South, 16 percent in the Center-West, and 3 percent in the North and Northeast.⁶⁶

Barriers to Older Adults' Participation in the Workforce

Older Brazilians who want to stay active in the workforce face a range of barriers. As in other countries, a prejudice among employers about older employees is prevalent in Brazil. In a survey conducted by PwC of 108 private employers in 2012 and 2013, only 37 percent considered the older-age workforce as a potential source to help address talent scarcity, and only 12 percent had made efforts directly to attract talents in this age group.

A lack of flexibility, a difficulty using new technologies, and a difficulty in staying up to date with the demands of the market have been employers' primary concerns associated with hiring older adults.67 Antônio Leitão, an institutional manager at the Mongeral Aegon Longevity Institute, also points out that employers often perceive older employees as costing more, particularly when it comes to skilled labor, and are therefore wary of hiring them.68 The prejudice can run in both directions, too, according to Henrigue Nova, the Executive Director of the Mongeral Aegon Longevity Institute (Instituto de Longevidade Mongeral Aegon), as some older workers can be resistant to taking retraining courses or to working under younger bosses.⁶⁹ In short, some employers tend to neglect the productive potential of older people and have overall unfavorable perceptions about them.

⁶⁴ Juliana Gonçalves. "Secretary for the Elderly opens registration for financial education workshops." July 26, 2016. http://www.londrina. pr.gov.br/index.php?option=com_content&v iew=article&id=24570:secretaria-do-idosoabre-inscricoes-para-oficinas-de-educacaofinanceira&catid=108:destaques.

 ⁶⁵ AEF Brasil. http://www.aefbrasil.org.br/index.
 php/aef-brasil-apresenta-tecnologias-ineditas programa-educacao-financeira-foco-adultos/.
 ⁶⁶ National Financial Education Strategy.

http://www.vidaedinheiro.gov.br/docs/ RelatorioEstatisticoENEF.pdf.

⁶⁷ PricewaterhouseCoopers. Aging of the Work
Force in Brazil. March 2013. https://www.pwc.com.
br/pt/publicacoes/servicos/assets/consultorianegocios/pesq-env-pwc-fgv-13e.pdf
⁶⁸ Interview with Antônio Leitão, institutional
manager at Instituto de Longevidade Mongeral
Aegon, March 2017.

⁶⁹ Interview with Henrique Noya, executive director of the Instituto de Longevidade Mongeral Aegon, March 2017.

The low level of education of today's older population is another major barrier to their participation in the labor market; the average years of schooling for Brazilians age 60 and older were 5.9 in 2015, and a whopping 25.7 percent of Brazilians age 65 or over are illiterate.⁷⁰ As Noya points out, learning technology and languages (including writing Portuguese correctly) can be a challenge for many older employees.⁷¹

Older workers are more likely to face a decline in productivity than are younger workers, but they are not acquiring sufficient training to keep them at a necessary level of productivity to compete for good jobs. While some public universities – including the Federal University of São Paulo and the University of Campinas – provide certain programs that target older people, they primarily aim to support their physical and mental health rather than tapping their productive potential.⁷²

One program that has potential to help mitigate this problem is the National Program of Access to Professional Education and Employment (PRONATEC or "*Programa Nacional de Acesso ao* Ensino Técnico e Emprego"), which was launched by the Ministry of Education in 2011 with the intention of expanding and democratizing education and increasing the educational opportunities available to workers.⁷³ Although it does not specifically target the older population, PRONATEC focuses on promoting social and productive inclusion and offers financial assistance to low-income individuals (Bolsa Formação Trabalhador, or "Worker Education Grant") by sponsoring vacancies at professional education institutions that are already well-established in the market.74 PRONATEC aims to expand access to VET and has increased the numbers of institutions and courses available to the public. As of 2017, it offers 646 types of short gualification courses⁷⁵ and 227 technical courses.76 and has had 11.4 million registrations for courses since its launch.77

⁷⁰ IBGE, 2016. Synthesis of Social Indicators: An Analysis of the Brazilian Population's Life Conditions. http://biblioteca.ibge.gov.br/biblioteca-catalogo?vi ew=detalhes&id=298965.

⁷¹ Interview with Henrique Noya, executive director of the Instituto de Longevidade Mongeral Aegon, March 2017.

⁷² University of Campinas. "O Programa UniversIDADE." http://www.programa-universidade. unicamp.br/sobre.php?s=SOBRE_O_PROGRAMA; Unifesp. "Universidade Aberta à Terceira Idade." http://www.unifesp.br/reitoria/proex/uati.

⁷³ Ana Valeska Amaral Goems. "What can we say about Pronatec?" August 2016. http:// www2.camara.leg.br/documentos-e-pesquisa/ publicacoes/estnottec/areas-da-conle/ tema11/2016 9576 pronatec ana-valeska. ⁷⁴ British Council. "Report: Vocational Education in Brazil: A Guide for International Cooperation." August 2015. https://www.britishcouncil.org/ education/ihe/knowledge-centre/nationalpolicies/report-vocational-education-brazil. ⁷⁵ Pronatec Program Guide, 4th edition. 2016. http://portal.mec.gov.br/index.php?option=com docman&view=download&alias=41261-guiapronatec-de-cursos-fic-2016-pdf&category_ slug=maio-2016-pdf<emid=30192. ⁷⁶ National Technical Program Guide, 3rd edition. 2016. http://portal.mec. gov.br/index.php?option=com_ docman&view=download&alias=41271-cnct-3-edicao-pdf&category_slug=maio-2016pdf<emid=30192.

⁷⁷ Ministry of Education. *Pronatec*. http://portal. mec.gov.br/pronatec. Accessed March 13, 2017.

Nevertheless, the oldest members of society have not significantly felt the benefits of PRONATEC. In fact, only 2 percent of those who registered for PRONATEC courses from 2011 through 2014 were 55 or older, and only 0.2 percent were 65 and older.⁷⁸ In response to the lack of older students in PRONATEC courses, one deputy⁷⁹ introduced a bill that would increase the number of courses directed toward older people and establish a fixed number of grants available for those over 60. The sponsor of the bill, Deputy Roney Nemer, noted in the press that "the lack of sufficient slots in college courses for the elderly public is notorious, in addition to the evident difficulties that age imposes when one wants to return to the classroom."80 The bill has been approved by its committee, but it has yet to go before the Chamber as a whole.⁸¹

Pension/Retirement Reform

Brazilian workers in the formal sector tend to retire early and then continue to work in the informal sector. Under Brazil's social security system (the General Regime for Social Welfare, or RGPS), people are entitled to retire with a full pension based on one of two conditions: 1) by length of service or contributions, having contributed to social security for 35 years for men, and 30 years for women; or 2) by age 65 for men, and 60 for women, with a minimum contribution record of at least 15 years.82 Because the first pathway has been the most common for Brazilians to retire, and it has no minimum age of eligibility, Brazil has been one of the few countries in the world to effectively not have a minimum retirement age.⁸³ According to Mariano Bosch of the IADB, Brazil is currently "on the route of high benefits, low retirement age."84 As a result, Brazilians on average retire at the low age 58,85 and many continue to work in the informal sector in order to avoid social security taxes.86

⁷⁸ Secretary of Information Management and Evaluation. *Evaluation of Pronatec: Aspects Related to Efficiency, Efficacy, and Effectiveness of the Program between 2011 and 2014.* http://www.spe. fazenda.gov.br/notas-e-relatorios/estudo-sobre-opronatec/apresentacao-pronatec-mds.pdf.

⁷⁹ Member of the Chamber of Deputies (*Câmara dos Deputados*), the lower house of the National Congess of Brazil.

⁸⁰ Câmara Notícias. "Security approves bill that includes the elderly in Prouni and Pronatec." 26 January 2016. http://www2.camara.leg. br/camaranoticias/noticias/EDUCACAO-E-CULTURA/502981-SEGURIDADE-APROVA-PROJETO-QUE-INCLUI-IDOSOS-NO-PROUNI-E-PRONATEC.html.

⁸¹ Câmara dos Deputados. "Bills and Other Projects." Accessed April 5, 2017. http://www. camara.gov.br/proposicoesWeb/fichadetramitacao ?idProposicao=964530

⁸² OECD (2015). Pensions at a Glance.

⁸³ Reuters, "Brazil, with no minimum retirement age, committed to pension reform –official," August 22, 2016. http://www.reuters.com/article/brazilpensions-reform-idUSL1N1B312F.

⁸⁴ Interview with Mariano Bosch, senior specialist at Labor Markets and Social Security Unit for the Inter-American Development Bank. September 2016.

⁸⁵ Alexandro Martello, "Average retirement age is among the lowest in the world." G1. 1 October 2016. http://g1.globo.com/economia/ noticia/2016/10/media-de-idade-daaposentadoria-esta-entre-menores-do-mundo-dizgoverno.html.

⁸⁶ Growing Old in an Older Brazil. World Bank. 2011, pp. 75, 78.

One of the key proposals of President Michel Temer's administration has been pension reform, which could have a significant impact on older-age labor force participation, particularly for those in the formal sector. Temer proposed his reform plan in December of 2016, primarily with an eye toward curtailing the current fiscal deficit amid mounting debt and decelerating economic growth. Henrique Meirelles, Temer's Finance Minister, said that was not a choice but rather "a necessity" for Brazil's public finances. According to Meirelles, the government's primary expenditures have increased from 10.8 percent of GDP in 1991 to almost 19 percent of GDP today, and the biggest culprit for this increase has been pensions.87

One key component of the reform proposal has been to set the minimum retirement age at 65 (with 25 years of contribution) for both men and women. While this reform would require a constitutional amendment, the government proposes that the minimum retirement age be adjusted in tandem with increases in life expectancy without the need to adopt a new constitutional amendment.⁸⁸ The minimum retirement age would apply to all men under 50 and women under 45 once

⁸⁷ Marta Cavallini. "Welfare reform is not a decision, it's a necessity, says Meirelles." *G1*. March 9, 2017. http://g1.globo.com/economia/noticia/reforma-da-previdencia-nao-e-decisao-e-necessidade-emfuncao-das-contas-publicas-diz-meirelles.ghtml.
 ⁸⁸ *BrazilGovNews*. "Pension reform proposal sets minimum age of 65 for retirement." 6 December 2016. http://www.brazilgovnews.gov.br/ news/2016/12/pension-reform-proposal-sets-minimum-age-of-65-for-retirement.

the legislation were to come into effect. For men 50 and older and women 45 and older, their retirement would follow the existing rules, but the required contribution period would be extended by 50 percent, essentially delaying their exit from the workforce.

Congress plans to make a decision on the proposal in the first half of 2017 (although delays on legislation are extremely common). The Temer administration feels that the legislation will pass, and at one point it claimed to have the support of over 80 percent of legislators, exceeding the threshold of 60 percent.89 The reform has, however, met with fierce opposition from labor unions, with demonstrations being organized in March of 2017 in at least 23 out of the 27 states, and strikes in some others.⁹⁰ The legislation is already meeting opposition in Congress as well, not only because of the establishment of a minimum retirement age, but also because of its increase for the minimum contribution period.⁹¹ Temer's allies in

⁸⁹ Sami Adghirni and Mario Sergio Lima. "Brazil Government Rules Out Changes to Pension Reform Plan." Bloomberg Politics. January 23, 2017. https://www.bloomberg.com/politics/ articles/2017-01-23/brazil-government-rules-outchanges-to-pension-reform-plan. ⁹⁰ Marcelo Corrêa et al. "Welfare reform transforms into a battle." O Globo. March 16, 2017. http:// oglobo.globo.com/economia/reforma-daprevidencia-se-transforma-em-batalha-21068079. ⁹¹ Câmara Notícias. "PEC of Welfare reform receives 146 parliamentary amendments." March 14, 2017. http://www2.camara.leg. br/camaranoticias/noticias/TRABALHO-E-PREVIDENCIA/524236-PEC-DA-REFORMA-DA-PREVIDENCIA-RECEBE-146-EMENDAS-PARLAMENTARES.html.

Congress have already proposed 146 amendments to the initial legislation,⁹² and key allies have balked at some of the measures, with one calling them draconian and saying that it would be "impossible" to vote on the bill as it was.⁹³ Other Congressmen have looked to exclude certain constituencies from the rules, and Temer has already agreed to exclude state and municipal public servants from the reform's provisions.⁹⁴

That said, should the legislation end up passing, it could extend people's stay in the workforce. According to a study by CELADE, the Population Division of ECLAC of the United Nations, increasing the average age of retirement by two years would mitigate the effects of an aging population on productivity in Brazil through 2040.⁹⁵

Expanding Productive Opportunity

With a large working-age population, the Brazilian government has generally not paid much attention to the productive opportunity of older adults. In fact, there is no significant government program to support or improve market conditions for older jobseekers. However, an increasing number of efforts have been made by a variety of non-governmental entities over the past couple of years, demonstrating a rising societal awareness of great productive potential among the older population.

Some private companies, such as fastfood chains Pizza Hut and Bob's Burgers, have started to create employment programs targeting older workers. Yet, these programs only focus on low-paid work and unskilled labor and are often undertaken more for publicity than to cause actual changes in hiring policy. According to Leitão, few companies have programs to recruit older people for skilled labor or more senior posts, largely because of the perceived high cost of hiring more experienced workers. ⁹⁶

The companies that have looked to hire older adults for senior positions, though, have been rewarded, according to Noya. Dotz, a company that provides benefits for customers along with the purchases they make, was inspired by the Robert de Niro movie *The Intern* and decided to create a technology manager position aimed at candidates over age 55 at the end of 2015. It received more than 1,500 résumés and hired three applicants. The program has been such a success, with both the new employees and the old employees learning from one another,

⁹² "Battle." http://oglobo.globo.com/economia/ reforma-da-previdencia-se-transforma-embatalha-21068079.

⁹³ Senado Notícias. "Renan Calheiros states that the government has already made welfare reform unviable." March 15, 2017. http://www12.senado. leg.br/noticias/materias/2017/03/15/renancalheiros-afirma-que-governo-ja-inviabilizou-areforma-da-previdencia.

 ⁹⁴ Bruno Peres and Marcelo Ribeiro. "Temer removes state and municipal public servants from welfare reform." March 21, 2017. http://www.valor. com.br/politica/4908686/temer-tira-servidoresestaduais-e-municipais-da-reforma-da-previdencia.
 ⁹⁵ CEPAL. "Brazil's ageing future: turning points and policy options: a look towards 2040 and beyond." January 2013. http://www.cepal.org/en/ publications/37641-brazils-ageing-future-turningpoints-and-policy-options-look-towards-2040-and.

⁹⁶ Interview with Antônio Leitão, institutional manager at Instituto de Longevidade Mongeral Aegon, March 2017.

that the president of Dotz is already considering a second round of hires.⁹⁷

The Brazilian Service of Support for Small and Micro-Enterprises (SEBRAE), a nonprofit social service, has also started a program called *Senhor Orientador* (roughly translatable as "Older Advisor"), with retired employees over the age of 60 from the *Banco do Brasil*, a governmentowned bank. Small business owners are invited to submit business plans to SEBRAE, which are then evaluated by these retired professionals, with a certain number receiving a line of credit from Banco do Brasil.⁹⁸ According to Noya, the results of this program have also been very encouraging.⁹⁹

Meanwhile, some non-governmental organizations have emerged in recent years to provide job-search assistance to older people. MaturiJobs, a social business launched in 2015 by software engineer Mórris Litvak, aims to provide job opportunities by connecting people age 50 and older to employers, with service fees paid by employers. MaturiJobs' site registers people over the age of 50 who want to work, and connects them with employers, who post advertisements looking specifically for workers of that profile. As of July of 2016, it had helped 3,000 people find jobs in a range of areas, including law, strategic planning, and engineering.¹⁰⁰ The large base of users provided a base to engage companies, the government and society at large to help them understand that aging has already arrived.¹⁰¹

The Mongeral Aegon Longevity Institute, which was established by the Dutch insurance company Aegon in 2016, is another new organization that also offers support to older Brazilians' job placement. It has many different operations, including an online portal that offers people age 50 and older free services, including résumé evaluation and interview training, as well as professional-requalification courses that cover computer skills, language, and entrepreneurship.¹⁰² One of its ongoing

⁹⁷ Interview with Henrique Noya, executive director of the Instituto de Longevidade Mongeral Aegon, March 2017. Also see http:// institutomongeralaegon.org/trabalho/dotz-buscavoz-da-experiencia-em-decisoes-com-programageracao-senior.

⁹⁸ Sebrae. "Senhor Orientador will support small businesses in accessing credit." https://www. sebrae.com.br/sites/PortalSebrae/noticias/senhororientador-dara-suporte-a-pequenos-negocios-noacesso-a-credito,ca5245b735dca510VgnVCM100 0004c00210aRCRD.

⁹⁹ Interview with Henrique Noya, executive director of the Instituto de Longevidade Mongeral Aegon, March 2017.

 ¹⁰⁰ Gilberto Dimenstein. "Startup helps professionals older than 50 find jobs." *CBN*. July 22, 2016. http://cbn.globoradio.globo.com/
 comentaristas/mais-sao-paulo/2016/07/22/
 STARTUP-AJUDA-PROFISSIONAIS-COM-MAIS-DE-50-ANOS-A-ENCONTRAREM-EMPREGO.htm.
 ¹⁰¹ TV Cultura. "Company launches re-placement service for people older than 50." July 16. 2015. http://cmais.com.br/jornalismo/radar/empresalanca-servico-de-recolocacao-para-pessoas-commais-de-50-anos.

¹⁰² Aegon. "Who We Are." http://

institutomongeralaegon.org/quem-somos#instituto http://www.cnseg.org.br/fenaprevi/servicos-apoio/ noticias/instituto-de-longevidade-mongeral-aegon. html;

Aegon, "Aegon's retirement research expands to Brazil." April 12, 2016. https://www.aegon.com/en/ Home/Investors/News-releases/2016/retirementresearch-expands-to-Brazil/

projects that could have a significant impact on the older-age job market is a proposed bill called the Special Regime for Retired Work (RETA). According to its institutional manager, Antônio Leitão, this project was developed with economists and is designed to mesh with the Statue for the Elderly, which directs the government to encourage the hiring of older Brazilians, but does not say how to do so.¹⁰³ RETA, however, would incentivize the hiring of people older than 60 by exempting companies from paying certain taxes if they were to hire these workers.¹⁰⁴ Yet, according to Henrique Noya, its executive director, raising public awareness of this project has been a significant issue, despite its anticipated benefits. Changing the public discourse and making this bill a priority have proven to be frustrating challenges.¹⁰⁵

¹⁰³ Interview with Antônio Leitão, institutional manager at Instituto de Longevidade Mongeral Aegon, March 2017.

¹⁰⁴ http://institutomongeralaegon.org/nossasiniciativas/projeto-de-lei-reta.

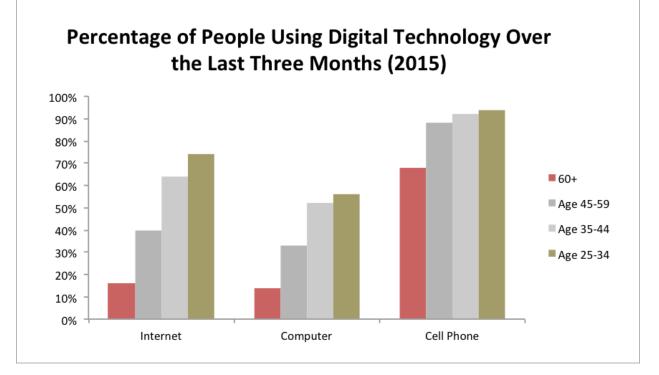
¹⁰⁵ Interview with Henrique Noya, executive director of the Instituto de Longevidade Mongeral Aegon, March 2017.

Technological Engagement

Interest in the older-age market is growing among the Brazilian technology sector, as some local companies, led by startups, have started to develop products that are driven by information and communication technology (ICT) to meet needs of older adults and their families. The government has also increased support by funding innovations that assist with independent living of older adults and people with disabilities. However, the digital divide between older adults and the rest of the population, as well as the government's lack of effort to improve the digital inclusion, remain barriers to fully unleash the economic potential in this market.

The Digital Divide

Like counterparts in other countries, older Brazilians are slower than the younger population to adopt digital technologies, including computers, cell phones, and the Internet. According to a 2015 survey by the Center of Studies on Information and Communications Technologies (CSICT), only 16 percent of respondents age 60 and older had used the Internet in the previous three months, compared with 58 percent for respondents of all age groups. The CSICT survey also found that digital divide is greater in the use of the Internet than in the use of computers and cell phones.



(Source: The Center of Studies on Information and Communication Technologies)

Lack of interest is the top reason cited by three-quarters of the respondents who had never used the Internet; the other two major reasons are lack of computers skills (71 percent) and a lack of need (60 percent).¹⁰⁶

The government has not taken much direct action in helping to integrate older Brazilians into the digital world. Public access centers, including local area network houses and telecenters, are the major venues that the government uses to provide Internet access to the general public and, in some cases, to offer computer sessions to communities.¹⁰⁷ As of 2013, there were 9,514 of these centers across the country, and 4.6 million people were using these centers each year.¹⁰⁸ However, these facilities have primarily benefitted youth rather than older Brazilians. A 2013 survey on centers of public access in Brazil showed that 62 percent of the users were ages 16 through 24, while people age 60 and older only accounted for 4 percent. Older people's

low participation in the public access centers is partly attributed to their fear of losing dignity with the high presence of youth¹⁰⁹ or a lack of activities targeted toward them.¹¹⁰

Despite this significant gap in Internet use, older adults who do use the Internet have followed younger users more closely in terms of online shopping, representing great potential for e-commerce businesses. While people age 50 or older accounted for 22.5 percent of the total population of Brazil in 2015,¹¹¹ they contributed to 33 percent of total online orders and 35 percent of annual e-commerce revenue, translating into BRL15.6 billion (around USD 4.3 billion¹¹²), according to a 2016 study by Instituto Locomotiva and Ebit. E-commerce is popular mainly because online ordering and delivery services allow older adults, who often face more mobility issues, to shop from home and save them from carrying heavy products themselves. In addition, the growing prevalence of

¹⁰⁶ The Center of Studies on Information and Communication Technologies. ICT Household Survey 2015. http://www.cetic.br/pesquisa/ domicilios/indicadores.

 ¹⁰⁷ Nemer, D., Gross, S., and True, N. (2013). *Materializing digital inequalities*. Proceedings of the sixth international conference on information and communications technologies and development notes – ICTD '13 - volume 2 (pp. 108–11). New York: ACM Press. doi:10.1145/2517899.2517915.
 ¹⁰⁸ CETIC.br. (2014). *Pesquisa sobre o uso das Tecnologias de Informação e Comunicação – TIC Centros Públicos de Acesso 2013*. Retrieved April 10, 2015, from http://cgi.br/publicacao/pesquisa-sobre-o-uso-das-tecnologias-de-informação-e-comunicação-tic-centros-publicos-de-acesso-2013/.

 ¹⁰⁹ Roman, R., and Colle, R. (2002). *Creating a participatory telecentre enterprise: UNESCO-CI*.
 Participatory Communication Research Section in the annual meeting of International Association for Media and Communication Research, Barcelona. Retrieved from http://portal.unesco. org/ci/en/ev.php-URL_ID=15767&URL_DO=DO_TOPIC&URL_SECTION=201.html.
 ¹¹⁰ Susan M. Ferreira et al. "Going Beyond Telecenters to Foster the Digital Inclusion of Older People in Brazil: Lessons Learned from a Rapid Ethnographical Study." *Information Technology for Development* 22 (2016): 26-46. http://www.tandfonline.com/doi/full/10.1080/02681102.201 5.1091974.

¹¹¹ UN Population Prospects 2015. https://esa. un.org/unpd/wpp/.

 $^{^{112}}$ Based on average 2016 exchange rate (1USD = 3.632 BRL).

smart phones and the availability of applications have enabled older consumers to make online purchases through just a few clicks.¹¹³

Digital Technology Initiatives Targeting Older Adults

While the government has not made significant progress on digital training for older people, it has increased support for the development of products and solutions that utilize digital technologies to improve older people's independence or wellbeing in recent years. The government launched a national plan in 2011 called Living Without Limits (Viver sem Limite), which aims to incentivize new initiatives and actions to benefit Brazilians with disabilities, including older people.¹¹⁴ Nine percent of the population has some disability. Of those 65 and older, 67.6 percent have some disability,¹¹⁵ with 33 percent of older adults having difficulties walking or climbing stairs without assistance.116

One arm of this plan was the Program for Innovation in Assistive Technology, which has provided more than BRL 175 million (USD 53.5 million) in funding. Funds are provided to winners of public contests, mainly in the form of reimbursable credit for Brazilian companies and nonreimbursable funding for universities and research institutes.¹¹⁷ In its latest public contest, which took place in 2015 and 2016, 14 out of 270 entries received funding, with individual awards ranging from BRL 690,000 to BRL 3.8 million (USD 204,840 to USD 1.16 million).¹¹⁸ The winning entries included Lifesenior, a continuous monitor of emergency situations developed by the Brazilian Union for Education and Assistance, a Remote Care System for Elderly Individuals developed by the University Research Foundation in Curitiba, and the Virtual Assistant for Social Inclusion and Autonomy (AVISA), a cellular application for those with visual disabilities that was developed by the Center for Research and Development in Telecommunications. Among them,

¹¹³ João Sorima Neto and Roberta Scrivano. "New public online: country already has 52 million elderly with access to the Web." *O Globo*. August 14, 2016. http://oglobo.globo.com/economia/novo-publico-na-rede-pais-ja-tem-52-milhoes-de-idosos-com-acesso-web-19918051.

¹¹⁴ Special Secretary for Human Rights. "Living without Limits." http://www.sdh.gov.br/assuntos/ pessoa-com-deficiencia/programas/viver-sem-limite.

¹¹⁵ https://noticias.uol.com.br/cotidiano/ultimasnoticias/2012/06/29/idosos-e-mulheres-saomaioria-entre-portadores-de-deficiencia-apontaibge.htm.

¹¹⁶ SIS 2016.

¹¹⁷ FINEP. "Innovation in Assistive Technology." http://www.finep.gov.br/apoio-e-financiamentoexterna/programas-e-linhas/inovacao-emtecnologia-assistiva; Ministry of Communications. "FINEP launches \$25 million contest for assistive technology projects." October 13, 2015. http:// www.mcti.gov.br/noticia/-/asset_publisher/ epbV0pr6eIS0/content/finep-lanca-edital-de-r-25-milhoes-para-projetos-de-tecnologia-assistiva; jsessionid=9D127B3CC6A9CDE8482D780D1C1 B75A8

¹¹⁸ FINEP. "Final Result." June 2, 2016. http:// www.finep.gov.br/images/chamadaspublicas/2016/02_6_2016_Resultado_Final_ dentro_do_limite_de_recursos.pdf.

AVISA has reached the commercial market, which had had 28,000 downloads as of January of 2017.¹¹⁹

Private-Sector Engagement

Today, as a whole, major technology companies in Brazil tend to center product development around the needs of children and the youth, who are digital natives, rather than older consumers, who are viewed as digital migrants.¹²⁰ The technology sector has struggled to understand the needs of older people as it emerged catering to the young.¹²¹ However, large technology companies have indeed started to provide solutions for improving the accessibility of digital devices for older people. They have been doing this by, for example, adding features that enable large letters and keys.¹²²

Nevertheless, interest in the older-age market has gradually been growing among the Brazilian technology sector, with startups being the most active force, although still at an early stage. An "There are definitely more and more projects and services on digital and assistive technology [targeting older people], although not as many when compared with the U.S. or other developed countries. There is not a lot of government involvement in this area. It's mainly come from the private sector who identify it as a niche market."

- Ina Voelcker, ILC-Brazil

increasing number of companies and entrepreneurs who have identified older people as a niche market are working to develop products or services that meet their needs, according to Ina Voelcker of ILC-Brazil.¹²³ Yet, according to Antônio Leitão, the startup sector is still finding its footing when it comes to selling to older customers. At the moment, there is little systematic planning in the sector about how to target older customers, and neither industry nor investors are particularly interested in those types of projects, especially beyond the health sector.¹²⁴

Technology that supports older adults' independent living while providing remote monitoring and emergency service is an area that local companies have been tapping into. Among the products already on the market is the Digital Caretaker

¹¹⁹ "App for Visually Disabled from the CPqD will also help the elderly." *MobileTime*. January 30, 2017. http://www.mobiletime.com.
br/30/01/2017/app-para-deficientes-visuais-do-cpqd-ajudara-tambem-a-idosos/465822/news. aspx.

¹²⁰ Bruno Capelas. "The Internet can make the elderly more independent. *O Estado de São Paulo*. August 15, 2016. http://link.estadao.com.br/ noticias/geral,a-Internet-pode-tornar-os-idososmais-independentes,10000069423.

 ¹²¹ "Connected elderly generate a demand for innovation." *O Estado de São Paulo*. http://link. estadao.com.br/noticias/geral,idosos-conectadosgeram-demandapor-inovacao,/10000069420.
 ¹²² Ibid.

 ¹²³ Interview with Ina Voelcker, International Longevity Centre-Brazil, September 2016.
 ¹²⁴ Interview with Antônio Leitão, institutional manager at Instituto de Longevidade Mongeral Aegon, March 2017.

(*Cuidador Digital*),¹²⁵ a device used like a collar or bracelet that is currently available for BRL 590 (USD 162). When pressed, the emergency button sends a signal to a mini-system installed in the home. The mini-system, which uses cellular network and requires a plan, then calls up to five contacts with audio captured from the residence. The Digital Caretaker also has an internal microphone that allows the user to talk when the button is pushed. Another product is the Easy-Glic,¹²⁶ a non-invasive device (flexible intelligent bracelet) made for older adults

that detects states of hypoglycemia. It monitors body temperature and humidity and detects changes that are consistent with a hypoglycemic state. When changes are detected, the device sends out alerts to the user through vibrations, red LED lights, and a mobile app, as well as alerting contacts who are registered to the app. It was scheduled to be launched by November of 2016 with a retail price of BRL 620, but is not yet available for purchase.¹²⁷

¹²⁵ *Cuidador Digital.* https://www.cuidador.digital/. ¹²⁶ "Connected elderly generate a demand for innovation." *O Estado de São Paulo.* http://link. estadao.com.br/noticias/geral,idosos-conectadosgeram-demandapor-inovacao,10000069420.

¹²⁷ *EasyGlic*. http://www.easyglic.com/quemsomos. html.

Although below the regional average, the longevity and healthy life expectancy of Brazilians have increased significantly over the past decade, partly thanks to the improvements in the country's healthcare system. However, major gaps exist when it comes to older citizens in both medical and long-term care. These weaknesses have only recently provoked responses and new programs from the government, which target older adults, while some also have the potential to lead to improvements in other parts of the Brazilian healthcare system.

Improvement in Health

The health of Brazilians, including older people, has significantly improved over the past several decades. Life expectancy (LE) of Brazilians ages 60 through 64 gained 2.8 years from 1990 through 2015, reaching 20.9 years as of 2015; at the same time, healthy life expectancy (HALE) of people ages 60 through 64 increased by 2.1 years to 16.2 years. Brazil's improvements have exceeded those of other Latin American and Caribbean counterparts, helping to reduce the gap between Brazil and the regional average on both lifespan and "health span." ¹²⁸

The growth in both longevity and "health span" in Brazil has mainly been attributed

to advancements in the healthcare system, in addition to improvements in living conditions. By introducing a dual healthcare system in 1988, Brazil guaranteed the right to free healthcare for all citizens through the Unified Health System (SUS) and allowed for the parallel existence of a private healthcare system.¹²⁹ Today, all Brazilians are covered under SUS, while more than one-quarter are also covered under private health plans.¹³⁰

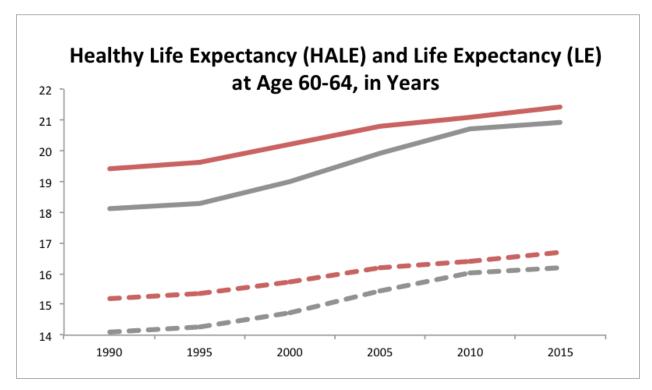
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¹²⁸ Global Burden of Disease Study 2015. Seattle,WA: Institute for Health Metrics and Evaluation (IHME), 2016.

¹²⁹ Before the return of democracy, Brazil's healthcare system was rather ramshackle. Sanitaristas (health professionals, local health authorities, and left-wing health experts) led a reform movement in the Constituent Assembly of 1988, which produced the 1988 Constitution (still in effect today). The sanitaristas wanted more focus on basic preventive medicine and universal access and less on expensive curative medicine. In the end, they won, as the 1988 Constitution proclaimed universal right to healthcare and the state's obligation to meet that through a free, universalized health system, the Unified Health System (SUS). However, they did not get a law passed to nationalize all healthcare. Conservative politicians opposed it partially because they were afraid it would threaten their clientelist networks. The resulting dual healthcare system is a type of compromise. (Source: Borges Sugiyama, Natasha, and Wendy Hunter. 2013. "Whither Clientelism? Good Governance and Brazil's Bolsa Familia Program." Journal of Comparative Politics 46: 43-62.)

¹³⁰ James Macinko and Matthew Harris. "Brazil's Family Health Strategy — Delivering Community-Based Primary Care in a Universal Health System." *New England Journal of Medicine* 372 (2015): 2177-2181.

http://www.nejm.org/doi/full/10.1056/ NEJMp1501140.





According to Ana Lúcia da Silva of CNDI, one major achievement under the public healthcare system that gives more focus to preventative measures has been the annual vaccination program.¹³¹ The program was introduced in 1999 in order to protect older adults from influenza, pneumonia, and tetanus, and all vaccinations are free. Older adults are given influenza shots in a nationwide campaign every year, as well as antipneumonia and anti-tetanus vaccinations at regular intervals. According to the Ministry of Health, the program has significantly helped older adults to stay healthy while reducing hospital expenditures. For example, studies show that for people age 60 and older,

¹³¹ Interview with Ana Lúcia da Silva, general coordinator of the National Council for the Rights of the Elderly. September 2016.

vaccination reduces the number of hospitalizations for pneumonia by up to 45 percent.¹³²

Like counterparts in other countries, older Brazilians have nevertheless seen improvement in "health span" lag behind that in longevity. From 1990 through 2015, the gap between LE and HALE in people ages 60 through 64 widened by 18 percent to 4.7 years.¹³³ Chronic, non-communicable diseases (NCD) are becoming the major health risks for older Brazilians. As compared to most developed countries, the

¹³² Luiz Garces-Leme and Mariana Deckers Leme. "Costs of elderly health care in Brazil: challenges and strategies." *Medical Express* 1(2014). http:// www.scielo.br/scielo.php?script=sci_arttext&pid =S2358-04292014000100003.

¹³³ Global Burden of Disease Study 2015. Seattle, WA: Institute for Health Metrics and Evaluation (IHME), 2016.

epidemiological transition in Brazil has also witnessed a coexistence of old and new health problems: despite the predominance of chronic and degenerative diseases, communicable diseases still play an important role.¹³⁴ The 2013 National Health Survey found that 55.6 percent of respondents age 60 or older felt that their health was fair, bad, or very bad.¹³⁵ As a result, demand for both long-term care and medical care from older adults is due to increase.

Long-Term Care (LTC)

Brazil's current social welfare policies do not specifically address LTC for older adults, although locally based efforts have been made to provide care assistance through day centers.¹³⁶ Indeed, ILC-Brazil, a leading civil organization, contends that LTC is the weakest area in Brazil's healthcare system for older adults.¹³⁷ Brazil's legislation has bestowed the main responsibility on the family, and LTC is not covered under the SUS health plan. Older people are eligible for institutional placement only if they are indigent and completely lacking family support. Institutional care in Brazil is very limited, available in fewer than 30 percent of

Brazilian municipalities and concentrated in the Southeast and in the larger cities, and the majority of the institutions are philanthropic in nature. As a result, fewer than 1 percent of older people reside in care institutions.¹³⁸

While home-based care is the most prominent component of the LTC provided to older adults, the government's support for older adults and their families is very limited. Cost of formal caregivers is not covered by either the SUS health plan or the supplement health insurance, and it completely comes out-of-pocket for care service recipients.¹³⁹ Often, only middle- or upper-class households can afford formal caregivers, and for those who cannot, family members have to assume the responsibility of caring for their older relatives.¹⁴⁰ However, the government does not provide financial subsidies in any form or require employers to provide paid leave to support these family members. Nevertheless, family members receive certain assistance in care skill training, as they can access free courses in caregiving through various universities

¹³⁴ Growing Old in an Older Brazil. World Bank.2011.

¹³⁵ IBGE, 2016. Synthesis of Social Indicators: An Analysis of the Brazilian Population's Life Conditions. http://biblioteca.ibge.gov.br/biblioteca-catalogo?vi ew=detalhes&id=298965.

¹³⁶ Interview with Emanuel de Araujo Dantas and Edvaldo Duarte Barbosa, Ministry of Social Welfare, September 2016.

¹³⁷ Health and Health Care in Brazil. ILC-Brazil 2013. Interview with Ina Voelcker, International Longevity Centre-Brazil, September 2016.

 ¹³⁸ Institute of Applied Economic Research. "71 percent dos municípios não têm instituições para idosos." May 24, 2011. http://www. ipea.gov.br/portal/index.php?option=com_ contelnt&view=article&id=8574.
 ¹³⁹ Interview with Martha Oliveira, National Agency of Supplementary Health (ANS), March 2017.

 ¹⁴⁰ Interview with Ina Voelcker, International Longevity Centre-Brazil, September 2016.

and hospitals,¹⁴¹ and at least one private healthcare plan, Prevent Senior, provides training courses for them.¹⁴² These are generally federal universities, which are public, or government programs.

Piloting Programs to Improve the Healthcare System

Despite Brazil's significant progress in the healthcare system, the country is not adequately prepared to accommodate the growing needs for medical care from the aging population. Brazil does not have a developed network in place to care for the older population, especially in the area of home health, as the primary ways that older people are cared for are through emergency care or hospitalization, or by going directly to specialists. For example, there are no general practitioners for primary care whom they could see to monitor medications.¹⁴³

In an attempt to resolve this problem by integrating and centralizing the fragmented system, the National Agency of Supplementary Health (ANS), which regulates providers of private health plans, recently launched a pilot project called Projeto Idoso Bem Cuidado (roughly translatable as the "Well-Cared-For Elderly Project") in 2016. The project aims to create a model for care service provision for older adults who have private health plans, who tend to be wealthier but also have greater demands for healthcare.144 To some degree, the ANS also hopes that this new model can serve as a more efficient model of private healthcare in general, perhaps leading to advances for other parts of the Brazilian healthcare system.¹⁴⁵

Under this model, a doctor and a nurse become the primary points of reference. From there, these doctors refer patients to specialists and organize their healthcare.¹⁴⁶ Private healthcare operators and service providers may voluntarily participate in the project. Those who express interest and fill out the necessary forms will be invited to participate in a pilot implementation process of the project, following the specific guideline of the project. The new model is intended to address and restructure the current service provision models and wages for healthcare workers

¹⁴¹ See, for example, UFMG Nursing. "Hospital das Clínicas da UFMG oferece curso gratuito de cuidador de idosos com 10 mil vagas."http://www. enfermagem.ufmg.br/index.php/noticias/274hospital-das-clinicas-da-ufmg-oferece-cursogratuito-de-cuidador-de-idosos-com-10-mil-vagas; Bernadette Kreutz Erdtmann et al. "Training for Elderly Caregivers." UDESC em Ação 6(2012). http://www.revistas.udesc.br/index.php/ udescemacao/article/viewFile/2443/pdf_89; São Camilo Educational Center. "Training for Elderly Caregivers." http://rs.saocamilo.br/extensao/ rio-grande-do-sul/capacitacao-para-cuidador-deidoso/; PRONATEC. "Free training course for elderly caregivers." http://pronatec.pro.br/curso-gratuitocapacitacao-de-cuidadores-de-idosos/. ¹⁴² Interview with Martha Oliveira, National Agency of Supplementary Health (ANS), March 2017. ¹⁴³ Interview with Martha Oliveira, National Agency

of Supplementary Health (ANS), September 2016.

¹⁴⁴ Ibid.

 ¹⁴⁵ Agency of Supplementary Health. "Well-caredfor Elderly Project." http://www.ans.gov.br/gestaoem-saude/projeto-idoso-bem-cuidado.
 ¹⁴⁶ MV. "Well-cared-for Elderly Project: Know what it's like and how it affects health care operators."
 October 27, 2016. http://www.mv.com.br/pt/blog/ projeto-idoso-bem-cuidado--saiba-o-que-e-ecomo-ele-impacta-as-operadoras-de-saude.

in the supplementary system, funneling requests through a primary physician before involving specialists.¹⁴⁷ According to Martha Oliveira of the National Agency of Supplementary Health (ANS), almost 70 healthcare institutions are already participating in the project, and there has already been a noticeable drop in visits to specialists since it began running.¹⁴⁸

¹⁴⁷ Agency of Supplementary Health. "Well-Caredfor Elderly Project." http://www.ans.gov.br/gestaoem-saude/projeto-idoso-bem-cuidado.

¹⁴⁸ Interview with Martha Oliveira, National Agency of Supplementary Health (ANS), March 24, 2017.