



## NEVER GET OLD A HISTORY FRAMEWORK: HOW AGE FACTORS, WASTED RESOURCES AND EXCLUSIONARY SCRIPTS COEXIST<sup>i</sup>

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### Abstract:

Cognitive capabilities and expertise vis-à-vis private-public industry, governmental policies and academia interact with age factor complexities in the long term, leading to wasted resources via exclusionary provisions within labor markets. This article examines published results and work-based practices evidencing workplace trends where advantages and disadvantages merge into a historical normalcy and a new market fit. Clearly, the highly competitive and ever-changing workplace is not exceptionally accommodating to older employees. An exclusionary script evolves around the workplace worldwide as the age factor limits employment options for the 65–75+, consequently generating wasted resources later in life. Ordinarily, old age falls outside standard economic employment normalcy, thus yielding circumscribed feedback to older jobseekers regardless of experience, skills or thematic interest. Considering the current worldwide high educational level of young entrants in the labor market, that cyclical scenario is not likely to transform. That cyclical transformation will accelerate with the advancement of AI, as it involves all age groups with overwhelming results on employment trends for the immediate future worldwide. From an educational perspective, young children are selectively educated to enter a significantly specialized labor force early in life. In the long term, the aging employee with limited lifetime employment opportunities and savings or low economic resources falls into an inescapable downward financial future. Alternatively, for successful business owners in agriculture, construction, maintenance, service and most micro-macro-enterprise businesses, success patterns, and family businesses, retirement and age factors are inconsequential. Successful family macro-enterprise businesses have a long history of going public as products, equity and holdings convert into stock market shares and/or cash portfolios, leading to inheritance trusts conceivably passed on for generations. Therefore, ageless choices coexist following an independent model based on a well-

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<sup>i</sup> NUNCA ENVEJECAS: UN MARCO HISTÓRICO: CÓMO COEXISTEN EL DESPERDICIO DE RECURSOS ENTRE FACTORES DE LA EDAD, Y GUIONES EXCLUSIONISTAS

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grounded business continuum. Age, retirement and employment primarily impact payroll employees. On the other hand, the high supply and low demand for PhDs in private-public industry and academia generates an age factor atmosphere as protectionism and discrimination conceive a dynamic labor market metric.

**Keywords:** ageism, business success and industry, exclusion, higher education, organizational counterforces

**Resumen:**

Las capacidades cognitivas y la experiencia en relación a la industria público-privada, las políticas gubernamentales y academia interactúan con las complejidades del factor edad lo cual en el largo plazo, conlleva a un desperdicio de recursos en base a disposiciones excluyentes en los mercados laborales. Este artículo examina los resultados publicados y las prácticas laborales que evidencian tendencias en el lugar de trabajo donde las ventajas y desventajas se fusionan con la normalidad histórica en una nueva adaptación al mercado. Es evidente que el entorno laboral, altamente competitivo y en constante evolución, no ofrece muchas oportunidades a los empleados mayores. A nivel mundial, se genera un patrón excluyente en el ámbito laboral, ya que la edad limita las opciones de empleo para las personas de 65 a 75 años o más, lo que consecuentemente se convierte en un desperdicio de recursos en la vejez. Generalmente, la vejez queda fuera de la normalidad económica del empleo, lo que resulta en una retroalimentación limitada para quienes buscan trabajo, independientemente de su experiencia, habilidades o intereses. Dado el alto nivel educativo actual de los jóvenes que se incorporan al mercado laboral en todo el mundo, es poco probable que este panorama cíclico cambie. Las transformaciones derivadas del avance de la IA afectan a personas de todas las edades, con consecuencias devastadoras para el empleo en el futuro inmediato a nivel mundial. Desde una perspectiva educativa, los niños pequeños reciben una educación selectiva que los prepara para incorporarse a un mercado laboral altamente especializado a una edad temprana. A largo plazo, el empleado de mayor edad, con ahorros limitados o escasos recursos económicos, se enfrenta a un inevitable declive financiero. En cambio, para los empresarios exitosos, la edad no representa una desventaja. Estos empresarios independientes no encuentran limitaciones debido a la edad en las economías mundiales. Para los propietarios de empresas agrícolas, de servicios, de construcción, de mantenimiento y la mayoría de las macro y micro empresas, la jubilación y la edad, son factores que no influyen negativamente en el éxito, incluidas las empresas familiares la edad resulta irrelevante. Las macro empresas familiares exitosas tienen una larga trayectoria de cotizar en bolsa, transformando sus productos, participaciones y activos en acciones o carteras de efectivo, lo que da lugar a fideicomisos hereditarios que se transmiten de generación en generación. Por lo tanto, coexisten opciones sin importar la edad, siguiendo un modelo independiente basado en un continuo empresarial bien fundamentado. La edad y el empleo afectan principalmente a los empleados asalariados. Por otro lado, la alta oferta y la baja demanda de doctorados en la industria privada y

pública, así como en el ámbito académico, generan un entorno marcado por la edad, donde el proteccionismo y la discriminación configuran una dinámica del mercado laboral.

**Palabras clave:** discriminación por edad, éxito empresarial e industria, exclusión, educación superior, fuerzas contrarias organizacionales

## 1. Introduction

Growing old is a non-alarming life cycle that should be accompanied by social, health, workplace and retirement normalcy; on the other hand, discrimination is disturbing. Inevitably, younger scientists and writers will fill pages and archives on ageism, successful and happy aging, as the aged transform into a testing variable. Thus, cognitive capabilities and conventional workplace policies interact with age factors, knowledge and experience in a challenging net of prejudices, scripts<sup>iii</sup> and assessment metrics.

In (Wang et al, 2019):

*“Population-based studies have suggested that early-life educational attainments, midlife work complexity and social engagements, late-life social, physical, and mental activities, and certain personality traits may affect late-life cognitive phenotypes.”* (p. 7)

Predicting a future psychological or physiological failure, the adequate biological age for retirement or generalizing a diminishing work performance gap amounts to speculation. Natural aging, life-long achievements, personal planning and whole-life-holistic choices are not a single age factor or a one-size-fits-all solution. Furthermore, life is full of unforeseen events where accidental physical and/or psychological forced choices abound at any age. A historical perspective allows us to identify a trajectory through time to understand a multiplicity of benchmarks.

For example, the 1798 England of Thomas Malthus (1966):

*“It has appeared that from the inevitable laws of our nature, some human beings must suffer from want. These are the unhappy persons who, in the great lottery of life, have drawn a blank. The number of these claimants would soon exceed the ability of the surplus produce to supply.”* (p. 8)

Numerous studies are inconclusive as assumptions regarding changing demographics, social needs and qualifications draw a blank. Simply put, the claimant's drawing a blank in the lottery of life, according to Malthus, is not only history, but it is

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<sup>iii</sup> Scripts in our application are inquiry, decision standards and trends applicable to age and employment. Generally, such scrutiny leads to full, part-time, limited employment or contract opportunities. Age scripts as an assessment methodology lays a foundation to process workforce age exclusion at times linked to discrimination.

likewise a prevailing phase. Let's just fast-track to today. Work is linked to survival and quality of life for most people before and after retirement because of a variety of conditions and personal choices. Retirees feel happier after the retirement process is over. In the US, employment later in life to make ends meet is on the rise (Calvo, 2006; Calvo et al., 2009; Beehr & Bennet, 2015; Dingemans & Henkens, 2019). Technological advances will challenge the future of unskilled and skilled job applicants as advances in AI robotics outpace human productivity, replicating activity and competitiveness while improving ROI in mechanized environments.

Conventionally, in the US, the 65+ baby boomer generation will become a 72 million workforce by 2030 or 20% of the working population (White, Burns & Conlon, 2018; Vitrano & Micheli, 2025; Monnat, 2025). The aging in the US workplace is becoming a worldwide phenomenon. In this sense, work continuity, career progression and the expected retirement age policies continuously adjust as industry demographic trends and strategic management continue and improve productivity by restructuring, implementing functions or eliminating barriers. Work beyond retirement, for the most part, is a personal choice as reorganization policies for private, public, commercial and institutional interests adjust the inclusiveness of such older employees to fit specialty voids. A competitive new world continuously learns to conceive new ideas while promoting social benefits and implementing new economic tools and techniques to incorporate workplace trends into productivity growth and equality. Whereas fundamentals such as personal drive, specialty, cutting-edge skills and experiential age achievements make certain individuals capable of working years after the conventional retirement age, others do not (Atalar & Demirel, 2025; Burtless, 2013; Carta et al, 2020; Riekhoff, 2024; Crossick, 2017; Mendes & Miguel, 2024; Munnell, 2015; Olmos-Peñuela et al., 2015; Previtali & Spedale, 2021; Zaccagni et al, 2024). The progression of the workforce integration of young and older personnel benefits from the transference of knowledge and expertise to engage with educational, economic and productivity output expectations.

The US labor force breakdown by age group: 65-69, 70-74, and 75+ exhibiting a growing tendency towards working later in life. By 2030, all three groups will increase; group 65-69 will grow from 1.6 to 6.6%; group 70-74 will grow from 0.9 to 4.9%, and group 75+ will grow from 1.5 to 2.8%. The 70-74 and 75+ figures outperform the data from 2000-2010 by over 66%, which equates to a significant change: The U.S. Bureau of Labor Statistics (11/ 2021, table #1). Whereas the 65-75+ has been growing, the employees ages 25 to 54 have been slowly trending down, yet the rate for the aggregate for the 25-54 is expected to increase. These figures may potentially increase when considering partial retirement or part-time work hours as employment options. It is only natural for an older person to pursue multiple economic interests to meet economic or social needs, complementing life choices. At the same time, it falls outside the workforce norm. Whereas some retirees prefer traveling, fishing, golf or countless other hobbies based on income choices and selectivity. Others prefer work continuity originating from talent, personal drive and not strictly financial needs. Some people love to work, contribute, and

are productive later in life, integrating health, skills and experience. Wasted resources result when developed talent is excluded from the benefits of market trends, as age factors become exclusionary scripts that prevent integration.

In (Bersin et al., 2018):

*“Companies can employ people into their 60s, 70s, and beyond as the pool of traditional “working-age” (20- to 54-year-old) adults shrinks.” (p.1)*

*(...) “Traditional assumptions — that learning ends in one’s 20s, career progression ends in the 40s, and work ends in the 60s — are no longer accurate or sustainable.” (p. 7)*

In (Munnell, Sass and Soto, 2006, p. 17) a survey of 400 private sector employers found that 56% of older managers were more productive, and few said they were less productive. In (Bersin and Chamorro-Premuzic, 2019) report a Deloitte survey where 10,000 companies were asked whether age was a competitive advantage or a competitive disadvantage in their organization. Over two-thirds said it was a disadvantage. The net result is that we have two studies reporting diametrically opposite results on age factors. Analyzing the older workers' evidence shows a significant number of younger employees and managers, implying that older workers are a disadvantage. If two-thirds agree it is an advantage or fifty percent think it is a disadvantage, the work environment is already problematic. Yet two-thirds, 66% or 56%, is a separation of 10%. Why should there be any disadvantage at all in a traditional norm? Or, perhaps a significant variable is that, as technological advances replace physical human work, the older and unskilled employees, as a trend, are leaning towards a lesser impact on the workplace by these two groups.

## **2. Methodology**

A traditional history methodology organizes study results to help understand the scale of the conversation, given an ongoing awareness of age factors. As we outline benchmarks of cultural, social ramifications and concept evolution in the context of age, there is a need to differentiate sequences of time and scales to include possible discrimination or workplace dissatisfaction. Our age discussion has a broad framework, as wasted resources and other controversies are inconsequential in many industries and countries. History fills certain human spaces that otherwise would go unrecorded.

A history framework examines a wide spectrum of past records of lifelong activity, employment trends, coworker relationships, and longevity choices to narrow a link between opportunities, quality and equality that are descriptive across time. Since the components of the driving force behind work after retirement age are not a single clear characteristic, generational trends and policies reflect today's social and political behavior in motion. A traditional and nontraditional understanding of growing old helps to clarify personal choices across the lifespan within a framework of advantages and

disadvantages. In this sense, the selected literature leads to evidential clarity across historical epochs.

The literature reviewed was identified and accessed from multiple sources such as Internet Archive, Internet Archive Scholar, Pew Organization, Google Scholar and JSTOR databases, along with other online and archival sources. A number of research questions were formulated in the selection process, but not limited to: the aging workplace, ageism, work and retirement age, publication funding for 65+, non-university PhD professional research, older PhD holder publications, PhD after 65+, older self-employed, and other history and philosophy-based questions. Productivity among older and younger employees and variations of the questions produced thousands of results. For example, two digital questions were consulted on Oct. 8, 2025: from the Internet Archive Scholar, *The Aging Workplace*, produced 397, 461 results, and *Work and Retirement Age*, produced 656, 013 results. A JSTOR search in January 2026 for research age and productivity produced 345, 422 results.

The history methodology and framework time sequences divide the engagement between the past and the present, as it hints at the future as history unfolds. The rapid technological advancement and implementation of AI in the workplace will replace conventional and traditional trades and humans in the future, thus rendering age factors immaterial in many fields. The volatility that AI will create in the future for the employment market is not part of this study. Whereas the impact of AI is noticeable from a historical perspective, it is still too young as an emerging science.

## **2.1 Text and discussion; history, resources, norms and institutions**

A history review of early law, social and philosophical issues reveals how today's behavior has been learned over the years. During the first quarter of the sixteenth century, Europe experienced a population growth, generating an economic and philosophical framework aligning a traditional sequence of policies into a larger future. Let's examine the Tudor Poor Law (1494-1601) in G. R. Elton (1953) to illustrate how the young, old and poor were expected to be productive as indicated by clear practices. At the time, children five to fourteen who were considered beggars could be taken by the '*Censours or Ouerseers of pouertie and Gorrectours of Idlenes*' by law, to prevent begging and provide apprenticeship (Elton, 1953, p. 61). Whereas the Poor Law in general may be unremarkable, the path was unmistakably punitive. In the recent history of England and beyond, children would be forced to labor. Some children from ages twelve to fourteen proven refractory were to be '*whipped with roddes*' as necessary and for as long as needed. The second offense by older children and vagabonds was punishable by '*whip and ear-cropping*,' and a third offense would render them felons. The practice, in extreme cases, could cost you your life. Other age issues, such as the separation of the elderly from the community in other countries, would include abandoning in the wild for a final shamanistic natural end (Elton, 1953). The ritual killing as a separation from the community or the self-inflicted suicide has a long history (Sloan, 2025a). In B. Jovanovic

(1997), "(...) *old age is not an inevitable death sentence for individuals who have their place in society.*" (p. 141).

Let's consider the philosophical view of the early community and age practices in the Utopia of Sir Thomas More (1516/1912); "(...) *be governed of the eldest and ancientest father, unless he dote for age; for then the next to him in age is put in his room*" (p. 109). In the philosophy of Utopia, the oldest was in charge of all-around duties, work, order and household head. By 1834, the Poor Law policy had advanced with some clear definitions and social welfare benefits, e.g., apprenticeship and medical. Sidney and Beatrice Webb (1910) present how the Poor Law had progressed: "*That outdoor relief to the able-bodied and their families should be discontinued; except — (a) As to medical relief; and (b) Apprenticeship of children. No other exceptions should be made*" (p. 4). Clearly, by 1834, the UK had evolved from the '*Censours or Ouerseers of pouertie and Gorrectours of Idlenes*' of the Tudor Poor Law, through Thomas Cromwell in the 1530s and Elizabeth's reign until 1572. Hence, the state had adopted a policy to provide health and education as basic benefits of citizenship. Once again, moving into our times, those two basic issues have become the minimum of citizenship and workplace guarantees. In retrospect, even the 1834 UK poor policy provided for health and education as basic needs. Regarding old age poverty and distribution, let's take a further look at Thomas Malthus (1890/1967): "*When the demands upon this fund were great and numerous, it would naturally be divided into very small shares. Labor would be ill paid*" (p. 7). If you are 65+, there is no single clearly identifiable economic resource. Your citizenship and lifetime employment might provide a form of Social Security, welfare or retirement benefits. Even then, you may already be in poverty. The political and economic choices, ranging from social to military infrastructure, provide for policies that are divisive nationally and internationally. Choices like providing for a strong military force may be imposed while social services are neglected. In real time and history, there are only so many ways to spin the yo-yo?

## **2.2 General understandings; norm standardization and academia**

Higher education targets younger researchers, as universities have no need to host 65+ researchers. If universities host one of their own retirees, that fills the void to argue that overall, clear opportunities are in place. If a handful of academics aged 70+ have been employed at one or two universities in Europe, that will adequately fill and fit ageism away from the presumption of prejudice and discrimination.

In (Savage & Olejniczak, 2021):

*"The motivation to perform research and publish results is a complex phenomenon with differing identifiable parameters between older researchers and younger ones, so much so that no generality can be identified."* (p. 4684)

Universities' focus on young students to propel future economic value and build national interest while achieving international recognition. Thus, the numeric significance of age factors and wasted resources conforms to a limited percentile and

fluctuating number of participants. Even if the age gap between students 20 to 75 will shift away from the university's educational focus. The educational focus is best directed at emerging quality output. Let's consider that the desire to stay productive may be socially and personally motivated and not strictly for remuneration. In this sense, a knowledge choice may be amplified by a personal passionate drive or a sense of societal responsibility based on personal selectivity. Academic publications and older researchers are a basic or rather simple discussion when compared to the countless examples of industry and non-academic business research for profit exploitation, such as DNA testing leading to data-based creations.

In J.B. Branch (2025, para. 15):

*“Unlike research institutions governed by institutional review boards (IRBs), direct-to-consumer genetics companies operate with minimal oversight from regulatory bodies like the Food and Drug Administration that are tasked with regulating health products.”*

By comparison, universities and research institutions safeguard resources ordinarily unavailable to retirees and older academic researchers who are theoretically “too old to publish”. According to The (Branch, 2025), direct-to-consumer DNA issues are abusive consumerism practices, as manipulation adds to social and business practice concerns. In (Werse & Talbert, 2022): *“The gross maltreatment of older jobseekers exasperates me. It is unimaginable that ageism is a problem in 2021”* (p. 17). Ageism practices in academia, research institutes and the workplace in general are a dilemma where discrimination plays a role with inconclusive answers. Since (Morgan & Hammond, 1991), mandatory retirement for tenured faculty was terminated in the US. In the UK, resulting from the (Age Discrimination Act, 2006), a retirement age no longer exists. Such legislation attempts to control and limit wasted resources while promoting alternatives for equality and aging, but it is not a common practice worldwide. In (Shah & Udgaonkar, 2018), *“Similarly, our students do not discriminate against teachers in terms of their age, as long as they are teaching effectively, enthusiastically”, (...)*. (p. 2439).

### **2.3 Academic practice, perspectives, politicians and retirement**

Naturally, young recent high school graduates should arrive at a university where they are received by young professors and employees to share in a new dimension of education and learning. From the young students' perspective, aged 18 to 21, young is probably within the range of 25–35, whereas 50–60 may imply being too old. In such scenarios, young professors are likely to better align with undergraduate students and the conventional academic script. Graduate and postgraduate students are altogether different, as students are accepted from all age groups. In such diverse scenarios, university officials themselves may be in a higher age bracket where old and young become a balancing economic and educational act. The educational system then balances an economic formula where being too young or too old may easily coexist to a point.

In the political world, age plays a less significant role; Donald Trump, 79, Joe Biden, 82, Vladimir Putin, 72, Xi Jinping, 72 and the oldest current serving leader, Paul Biya, 92. In the business world, Warren Buffett, at 94, is not alone. An ageless business and political tendency seems to be a non-exclusionary norm. These political and business trends are unlikely to change for decades as the law of the jungle rules when the cheat and the grudger (Mackie, 1978, p. 460) fight to own the world. OECD countries fall short of basic rights such as national respect for borders, territories, race, religion and citizen safety among themselves. The reality is that a working age factor applies to the masses, excluding politicians, business leaders and influential people who live in a separate world reality. In James Vaupel (2000, p. 197): *“Instead, you probably want to mix education, work, and leisure over the course of your life”*.

In Gary Burtless (2013):

*“In fact, people with advanced schooling are much more likely to work past 65 than those who have less education. In the early 1990s, nearly 60 percent of men age 60-74 who had doctoral or post-college professional degrees were in the labor force.”* (p. 3)

Again, retirement normalisation occurs mostly among the average workers in the common labor force. Our discussion lies within the normalization of an inclusive workforce adapting to societal life choices, which include an understanding of natural development rights.

## **2.4 The ruthless, presidents and kings**

It is well documented that an unnamed number of presidents, ministers and kings, of considerable age, have left a nasty scar and not just a mark throughout history. Narrowing the field, freely elected politicians in democratic states try to behave within norms, yet many behave like *“cheats and grudgers”* (Mackie, 1978). Presently, the unwarranted hatred of the powerful threatens humanity's equality and values as history unfolds. Hatred as a politician's working tool in many countries arises from a democratic state as *suckers* vote ruthless leaders into power. Hatred by powerful rulers is fueled by pure evilness, gold, greed, corruption and a deep desire for ethnic cleansing as a complex methodology to enslave and plunder the masses<sup>iv</sup>. Naturally, the powerful fail when they run out of *suckers* to vote for them, as they will never run out of victims. Hatred requires victims to achieve power, gold, corruption and any state, religion, or country will do, yet Muslims and communists fit to perfection. Any state or person can be regarded as a threat to the world, as an agent of evil or a terrorist, as a consequence of corrupt perception manipulation. History will document today's chaos and evilness as any people and countries can be targeted as a convenient path to power and riches by the ruthless. Post

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<sup>iv</sup> Headed by a ruthless and genocidal leader, Benjamin Netanyahu born in (1949). Dr. John Mearsheimer, born in (1947), is one of many who openly refers to Israel and the USA as genocidal states for crimes against humanity. Victims of Israeli terrorism are clearly judged and sentenced based on ethnicity, religion and nation to forcefully, cheat and remove their lands and resources at any cost.

Second World War, enemies have been heavily standardized and designated to fit the challenging characteristics imposed by colonial and empire-driven nations, in decadence, still exploiting the vulnerable. Yet, more specifically, few dare to challenge the normality of the ruthless, as Gaza, Palestinians and Muslims are exterminated in plain sight by Israel. Prime Minister Pedro Sanchez took a noteworthy stance for Spain and Europe against the USA war of aggression including Iran to balance the pendulum between hatred, equality and the protection of the most vulnerable. A look at war and hatred around the globe clearly exhibits the fight for power among the “cheats and the grudgers”, impacting all people and segments of life.

## 2.5 Regarding age, mental capabilities, resources and academic scripts.

Hugo Horta and Huan Li (2024):

*“The dominance of age-based career scripts eliminates alternative career trajectories that might contribute to academic development, as those following these trajectories would be relegated or even disqualified from joining the academic workforce.” (p. 1441)*

Career scripts and alternatives regarding age in this discussion fit people's futures who are already in the workforce and address later in life needs and opportunities. There are academics at risk programs, but what number is directly concerned with older academics, 65+? If an aspiring PhD student begins his/her academic journey after the age of 50, most universities would not refuse the student. Naturally, that is a segment of the academic script used to incorporate diversity. The question is whether that same university will grant the PhD candidate funding or host their own graduate project at 60?

In (Niessen, Swarowsky & Leiz, 2010):

*“In light of an aging workforce and changing work demands, the current results emphasize that organizations must shape employees’ – whether young or old – job experiences in order enable them to meet new demands and to reduce the amount of time to adapt to changes.” (p. 377)*

In (Niessen, Swarowsky & Leiz, 2010), they benefited from demographic results of the US Department of Health and Human Services (2003). In European demographic, testing the number of people aged 55 and older in the workplace is expected to increase by more than 15 percent between 2010 and 2030 (Peeters & van Emmerick, 2008; Van der Heijden et al., 2008), the workplace results from (Holman & Wood, 2003; Howard, 1995; Ilgen & Pulakos, 1999; Murphy & Jackson, 1999) and the workplace setbacks (Ilgen & Pulakos, 1999; LePine et al., 2000), sum up to change adaptation (e.g. Ployhart and Bliese, 2006, p. 6) and the test results mount up. However, results did not confirm the proposed negative relationship between age and job performance (e.g. McEvoy and Cascio, 1987; Ng & Feldman, 2008; Sturman, 2003; Waldman & Avolio, 1986) (p. 359). We return to (Werse & Talbert, 2022): *“The gross maltreatment of older jobseekers.” (p. 17)*. Or Gary

Burtless (2013): *"In the early 1990s, nearly 60 percent of men aged 60–74 who had doctoral or post-college professional degrees were in the labor force."* (p.3)

Let's review the IQ of employees for assessment. In Paul Andrew Bourne (2025):

*"The limitations of traditional IQ assessment, particularly cultural, linguistic, and socioeconomic bias, highlight the need for careful administration and interpretive caution. By deconstructing IQ testing, the essay emphasises that scores provide valuable but incomplete insights into human intelligence."* (p. 105)

If (Bourne, 2025) had included the age factor and workplace developmental issues in his research results, perhaps an even more disturbing and incomplete insight would surface. Ageism at universities seems to be primarily concerned with the young students' lack of opportunities in the marketplace. Perhaps that is naturally so, as the world belongs to the younger generation. The young should have all the benefits and advantages leading to a desirable career or stable workplace employment. The older researchers, 65+, may be more interested in publishing with more insight rather than attempting employment or economic exploitation through everyday labor. This diverse group of researchers is disregarded more so than the young career entrants, but they are representatives of a world moving forward within continuous changes.

In Antonio Frago & Josélia Fonseca (2022):

*"In short, the evidence we have shown so far shows that ageism is the most prevalent form of discrimination in Europe. Unlike racism or sexism, ageism potentially affects everybody, because we are all ageing."* (p, 3)

In (Wilkins, 2025):

*"(...) Since 1985, a growing share of those age 65 and older have chosen to participate in the labor force, because of personal preference or economic necessity. In 2024, 19.5 percent of people age 65 and older participated in the labor force."*

Aging becomes a path to acquiring manageable tools and expertise, providing a choice to participate or not in the workplace later in life. Whereas education is learning and training to be further developed throughout the labor years to gain experience. In that sense, if you train in your younger years, in your older years, you may develop a more profound meaning of how training, knowledge and experience come together. This simplistic approach identifies how resources are developed and how they are wasted or perhaps somehow disregarded while hidden in plain sight. On the other hand, (Joye & Wilson, 2015) *"As long as gender and age bias exists in the minds of students, discrimination can occur"* (p. 135).

## 2.6 Publishing and notes on teaching

Is there too much publishing in the world? Simply not so. Basically, not enough in numerous fields worldwide. Publications assist in shaping historical national character, social and political trends, so it's only natural that world education departments strive to develop academic interest in recording their early heritage and cultural identity, where publications serve such a principal interest. However, there are interpretative controversies and terminological inadequacies aside from a criminality issue within publications (Sloan, 2026). As the world refines its educational level, scholars will publish nationally to grow scientifically and culturally from a research perspective. There are endless frontiers still to be discovered around the world. And, those frontiers require guardrails to protect cultural identity and heritage. Such culturally significant material to one country may prove insignificant to other countries and disregarded in a way as to create political conflict and ruthless behavior.

The age factors and wasted resources transform or vanish as by-products of the conventionality of the workforce's inability to be inclusive. It is further noticed that there is meager research on ROI in R&D by groups of participants 60-65+, independently of thematic diversity. Occasionally, the unconventional voices of dedicated educators add to the formative capabilities and validity within some academic institutions.

One such example is the work of (Brabazon, Gribbin & Sharp, 2023):

*"I do not romanticize academic life. It is a hard life. Older students keep supervisors and our universities honest. They hold up a mirror to remind us of a bigger life and world. The lessons that we learn from these students improve our universities."* (p. 239)

*(...) "This is the research project that took 14 years, 7 supervisors and 2 universities to complete. Those 14 years convey a story of institutional failure and supervisory error. Ageism was the marinade for this failure".* (p. 251)

14 years tells a story of its own within age factors. Such age factors sum up the experience of unique situations within normal educational systems.

In (Short, 2004):

*"My own limitation is that, at age 58, I am going through the final stages of my own doctoral program and have become entrenched in reflection, research and writing, and I could potentially interpret the data based on my own experiences.* (p 34-35),

*(...) it is clear that older adults want to keep learning and will become a significant force in higher education."* (p. 105)

In the US, teachers such as Agnes Zhelesnik, "Granny", still taught at the age of 102. Imagine Granny started teaching at the age of 81. In India, Shanthamma Chilukuri,

a physics teacher, taught at 96. The list of those born to teach or study and learn at any age is extensive.

## 2.6 Trends, age and research mobility

Let's review researchers as pointed out by Marek Kwiek (2016):

*"The role of highly productive academics in knowledge production across all 11 European systems studied is pivotal: Without these 10% of academics, national academic outputs would be halved". (p. 65)*

How old is that 10%? Essentially, research between internationalists and local cooperation (Kwiek, 2020) led to (Abramo et al, 2016), "... and in the age at which these peaks take place (40, 50 or even 60 years)", (Gingras et al., 2008; Kyvik, 4 1990; Stern, 1978), (p. 3). This section's age group is a more typical age trend applicable to our discussion of productivity output, collaboration and quality in the research market. In Germany, as locals merge into a highly insecure and contested short-term contract academic labor market (Jöns & Deakin-Smith, 2025) from a British perspective, options are available. For example, the *Wissenschaftszeitvertragsgesetz*<sup>v</sup> is a fixed-term national employment contract imparted in English to German and international qualified researchers who are interested in short-term research employment. The length of these short-term research employment contracts is relevant to specific project duration expectations and discipline, based on competitiveness and quality. Standard institutional practices, at a high level of scrutiny and further development, dictate the possibilities of additional renewable terms. Whereas it creates a certain level of job insecurity for locals, it seems best appreciated by international researchers interested in collaboration before returning home. Educational frameworks that provide such programs in Germany are continuously evaluated in terms of high value and quality output, perhaps leading to program continuity. On the other hand, from a German perspective, considerations differ, and so do opinions. In (Keller & Gassmann, eds, 2025),

*Bogedan*<sup>vi</sup>, "Because Germany clearly lacks a political strategy for what constitutes a good society". (p. 6). (...) *Satilmis*<sup>vii</sup>, "The promise of educational equity and equal opportunities encounters a reality of discrimination within the higher education system, which, while no

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<sup>v</sup> *Wissenschaftszeitvertragsgesetz*, The Scientific Temporary Employment Act: *Academic Fixed-Term Contract Act* – is a legal bill that regulates fixed-term employment contracts and working conditions in the academic sector in Germany. From the *Bundesagentur für Arbeit* (29/9/2025): Of the 34.2 million employees of working age subject to social insurance contributions, around 7.8 million, or 23 per cent, were aged between 55 and 65 in 2024 – a new record high.

<sup>vi</sup> Keller, A., & Gassmann, F. (eds.). (2025). *Hochschule 2030: Claudia Bogedan, Vorwort: – Alma Mater in der Transformation*.

<sup>vii</sup> Keller, A., & Gassmann, F. (eds.). (2025). *Hochschule 2030: Ayla Satilmis, All inclusive?! – Denkanstöße gegen Diskriminierung und für Chancengleichheit im Wissenschaftsbetrieb*.

*longer denied, is still downplayed in many places, especially in its extent and institutionalized form, and receives little recognition". (p. 77). (...) Rauch & Gerloff<sup>viii</sup>, "... science is in danger of being forgotten. External pressure to cut costs and political pressure on academic freedom, while internal rigid hierarchies and a selective academic system based on precarious employment conditions are placing a massive burden on science". (p. 203)*

Internationally, Germany is a prime research destination with its own distinctive local views, which should be considered as a good thing. Internally, as expressed in (Keller & Gassmann, eds, 2025), there is a broad debate leading to confrontations and congruence of real social and political issues of substantial weight as inconclusiveness meets hope for challenge resolution. In (Conchi & Michels, 2014), mobility in Germany accounts for only 20% of PhDs, with the highest number traveling to Austria, France, Switzerland, the UK and the US. By comparison (Jiang & Shen, 2019), France, Germany, the Netherlands, Switzerland, the UK and the US were the top destinations for Chinese PhD students. The destination preferences for Germans and Chinese in these two studies are also the top destination choices for other international researchers due to high-quality output and collaboration. Returning to Germany, there are numerous programs; another, more competitive outside-the-box program is the Federal Agency for Disruptive Innovation, or SPRIND. It is noticed that Germany is highly competitive and the programs it provides to local and internationals also fall within an age factor of 35-40-50 for the most part. Within locals, the PD Prekär is a highly debated subject, leading some researchers to the *(and so, old-age poverty is often inevitable, as a topic undertaken by a VHD in a brief with a subsequent discussion at a Bonn conference on October 15, 2025. One last and curious note is that the German constitution, Article 3, #3, (Bundesamt für Justiz; BfJ), reads as follows: "No person shall be favoured or disfavoured because of sex, parentage, race, language, homeland and origin, faith or religious or political opinions. No person shall be disfavoured because of disability."* It is noteworthy that age is not mentioned in Article 3 of the German Constitution.

## **2.7 Uninsured, unusual and controversial**

Not covered by social insurance, the PD Prekär contracts fall outside the health insurance norms in Germany, yet numerical figures of the uninsured are conflicting. What are some of the circumstances? For example, the national uninsured figures stand at 61,000 to 70,000. In actuality, the uninsured figure exceeds 1 million when the homeless, undocumented migrants, refugees, and EU citizens without a transferable S1 form are unable to financially pay for health insurance (Dickmann et al., 2024; Kurz, 2022; Stötzler & Kaifie, 2023; Toth, 2020). In Christian Dumke & Andrea Kaifie (2024): *"almost 1% of German citizens only have an inadequate insurance cover, leading to an impaired medical care". (p. 2), (...) "Given the lack of research on the underinsured in Germany". (p. 4).* It is also noted that there are approximately 7.2 million uninsured in EU countries within a population

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<sup>viii</sup> Keller, A., & Gassmann, F. (eds.). (2025). *Hochschule 2030: Rauch & Gerloff, Innovation erfolgreich verhindern: Hochschulen unter Druck.*

of 450 million. The basis for the 1+% of uninsured in Germany is already estimated and reasoned in the listed and following studies. 1 million uninsured in Germany represent just around 1.15% of the population, even though that figure is questionable. In (Loi & de Vilhena, 2020), policies in Germany exclude: *“by law, public institutions in many countries - Germany included - are forbidden to survey individuals not holding a valid resident status”* (p. 2). Tracking specifics are found in Eurostat,<sup>ix</sup> as it provides some basic answers. In the EU 28, there is a much more comprehensive universal medical care at just over 1% when compared to the US, 8.8% uninsured. Kayvan Bozorgmehr & Oliver Razum (2020): *“The current landscape shows Germany as a country whose institutions are “lost” between attempts to uphold access barriers to health care to deter migrants and attempts to facilitate access to health services by making the system more efficient and equitable.”* (p. 168). In (Stötzler & Kaifie, 2023) there are 33 MediNetz non-governmental institutions in Germany that provide free medical services to the uninsured. In Mathias Zimmer (2024, p. 2), 128 facilities for people without health insurance in Germany have been identified. (...) *“The narrative of seamless health care coverage is not accurate”*. (p. 8).

In the European Commission, ERC, the narrative is that age is not a criterion. Yet, if age is not a criterion, why is a clearly defined program for 65+ only non-existent? From the ERC (2006, p. 6): *“(...) – a researcher applying for ERC funding, on behalf of the Host Institution”, (...)*. Options are severely inhibited by guidelines. If you are a retired 65+ scholar or researcher requesting funding from ERC as an independent individual, you are a non-contractual prospect. To begin, first independently find a new host institution after 65? Age factor scripts are always built into the contractual framework to extract maximum productivity from the surplus of competing candidates while limiting economic, legal and exposure and deficiencies. Contractual timeframes at institutional workhouses fill a gap between maximum profit and partial or temporary employment in a proven system where risk is absorbed and redirected back into a competing workforce for resources.

## 2.8 Time touches everyone; science and evolution

Aging is the natural relationship that exists between: life-and-death, young-and-old, happy-and-misery, health-and-illness. In this sense, our lifelong experiential knowledge has no boundaries if it is understood, promoted and protected. It stands out that, in the long term, old age is a less welcoming script at the road's end. On the other hand, it's not unusual to have university professors working into their seventies. Clearly, aging is not synonymous with outdated skills; there is always a place for accumulated knowledge to provide social and educational benefits. Such ideals fall in line with everyday living evolution, including our workplace experience, until illness naturally erodes physical and mental abilities. On the other hand, aging as a business continues to expand from vitamin and chemical supplements to advanced medical practices in an interactive financial world of spiraling medical costs that walk hand in hand with advanced

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<sup>ix</sup> Eurostat 2024; *“Unmet healthcare statistics”*; *“In 2024, 3.8% of people aged 16 years or over in the EU”* Germany unmet medical all reasons 1.2%.

technological and scientific success, with no end in sight. The fast pace of pharmaceuticals, technologies and financial medical capital growth requires regulatory and inclusive know-how to develop legal authorities and policies for all. Whereas, care and health treatments begin to surface at a young age in homes and schools, as medical visits are a routine. Health care affordability and inclusiveness for all people is the greatest problem.

## 2.9 Stress in the workforce

As an older researcher, overcoming the scrutiny of younger decision makers at universities or institutions is a first step in finding employment opportunities. As our analysis framework points out, that road is full of hurdles. Your tools are endurance, self-motivation, out-of-pocket resources and drive. In (Levin & Stephan, 1989): “(...) age is a fairly weak predictor of performance, the data suggest the presence of some aging effects” (p. 546). Academic and market volatility might arise from accommodating age factors and wasted resources in business as usual, but evidence shows that policies to accommodate changes in an aging world require robust interventions in an uphill battle. Let's say you need a host, funding or collaboration for an interdisciplinary project. To begin with, over 80% of projects are rejected. Funding for an individual has a low rate of success, and that is only if you're not a pensioner or have other sources of income. Publishing while affiliated to a university as students, professors or employees or at research institutions and publishing academic research outside universities or institutions are two separate issues. The independent academic researchers who need or depend on external support systems maneuver in a critical mode. For some, economic needs appear to be secondary (Boulton-Lewis & Buys, 2014):

*“In summary, most participants gave their main reason for continuing engagement in academic activities as interest and commitment to researching and writing.” (p. 75)*

Older researchers' experience and motivation make them more inclined to produce without economic interest or institutional assistance. Younger professionals and academic people want remuneration as a conventional work condition for age groups 40 to 55, as was the case with the PD Prekär problem impacting Germany. Working for limited pay or no pay at all is not a real option for younger academic or professional employees. Advanced economic powers set trends worldwide as a result of research capabilities, reach, and higher education structure, competing for and demanding excellence in results. Losing a successful strategic intellectual resource, even considering its faults to accommodate aged employees and educators, may create a loose end when competitiveness is challenged by younger generations. Such changes become a risk and a challenge as profit confronts equality or redistribution of economic wealth. In Geoffrey Crossick (2009, p. 9):

*“Ensuring that the researchers and the university benefit from any commercial exploitation of their intellectual property is a necessary protection, but it should not be the driver”.*

Money and economic gain do not necessarily impart equality, quality, security or equitable social benefits or cultural advantages. An educated public and practitioners gain from such inclusiveness.

### **3. Conclusion and observations**

The highly competitive, challenging and ever-changing worldwide workplace is not looking forward to employing older people. Even when ageism is a malady embedded in our societies. Whereas routine production perfection is driven by output, where older, experienced employees find a fit. New ideas, inventions and implementation are generally attributed to younger people. Ideally, we are born in a civil and moral society that provides for safety at birth, education throughout childhood, and leads to workers' security, retirement and end-of-life care. A structured national system that provides security for all aging, incapacitated and ill people, away from fundamental political debates rather than funding a strong military. There are no guarantees of a perfect job, capabilities through time, developing into success for some, as others fall into the lottery of life, where, unfortunately, they draw a blank, requiring state intervention. Business ventures and businesses can be rewarding and may provide success and a greater sense of achievement and economic safety at any point in life. Basically, work satisfaction is the result of choices and rewards given the right frame of mind and educational background within our complex world economies. For the immediate future, as demographics change and the workforce adapts to new changes, the age factor may be absorbed as a normal stage of life. It seems unavoidable that one characteristic commonly found in studies is that insufficient evidence or inconclusive results lead to untested, dummy and other variables. One such exclusion is the substitution of jobs by the implementation of AI advancements, as a growing gap between the middle and traditional classes continues to expand.

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### Conflict of Interest Statement

The author declares no conflicts of interest

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