



**From Basic Research to Institutional Intervention:
Scaling Productive Aging to Mitigate Cumulative Disadvantage**

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Introduction

As the United States population ages and becomes increasingly diverse, the concept of “productive aging”—encompassing employment, volunteering, and caregiving—offers a vital framework for bolstering both individual well-being and societal solvency. While these roles contribute trillions to the economy, they are not equally accessible nor equally rewarding. This commentary synthesizes research demonstrating that work, service, and care are critical social determinants of health, yet remain heavily stratified by race, gender, and socioeconomic status. We argue that the “win-win” outcomes seen in successful interventions, such as AARP’s Experience Corps program, must be scaled through robust institutional support. However, current policy shifts—including budgetary cuts to social safety nets and the accelerated depletion of Social Security funds—threaten to widen health and economic inequities by reducing the institutional capacity to support older adults. We call for a transition from basic research to intersectional, experimental interventions that address lifelong cumulative disadvantages, ensuring that productive engagement remains a viable choice rather than a mandated burden for all aging populations.

Uneven Outcomes of Employment as a Social Determinant of Health and Wealth

Although rarely acknowledged, work is a social determinant of health as it directly impacts economic security, mental and physical health, and social connection (Ahonen et al., 2018). A growing body of research suggests occupations that are mentally, socially, and physically complex and novel may promote brain health and delay cognitive impairment (Lee et al., 2024). Yet, the quality or rewards of work are not equally rewarding: pay inequities, measured in salary, wages, or through retirement benefits, job quality variations, and perceived discrimination persist across age, gender, race, and ethnicity. There is accumulating evidence that women and minoritized older workers do not gain the same cognitive health benefits relative to White men (Fujishiro et al., 2022; Gonzales et al., 2022). While the link between genetics (such as APOE) and productive aging is under-researched, Lee et al. (2024) recently identified a positive trend. Among APOE $\epsilon 4$ carriers, those participating in low-intensity volunteering and cognitive or physical leisure activities demonstrated better cognitive performance than their inactive counterparts. Might there be a different threshold of productive engagement and cognitive health, dependent on the genetic makeup of different populations? Aside from the effects of work on health, there is a clear economic need to delay retirement because of limited retirement savings and potential cuts to social security benefits. A consensus report by the National Academies of Sciences (2022) concluded that older adults who are able to delay retirement are generally more educated, wealthier, and healthier. Women, racial and ethnic minorities were often unable to work longer, partially due to disadvantages experienced earlier in life, such as limited educational opportunities; health shocks to themselves or family that necessitated caregiving; as well as ageism and its intersection with other forms of bias throughout the recruitment, promotion, and retention phase of work. Notable research gaps include examining the workplace context – norms, policies and practices to promote the choice to work longer, and moving the research focus from basic research to interventions that can test causal mechanisms regarding the

effects of work on health, wealth, and timing of retirement. Recognizing employment as a social determinant of health and addressing intersectionality-informed workplace disparities through improved workplace interventions and policies could expand access to the benefits of extended work life across diverse populations.

Volunteering Bolsters Health and Strengthens Social Ties for Older Adults

Older adults give their time to society in a myriad of ways. Often, they are tutors and mentors to younger generations in schools and their communities. Some take on administrative and managerial tasks in libraries, places of worship, hospitals and other nonprofit organizations. Experimental and quasi-experimental research has shown win-win outcomes for volunteers and those they serve. Formal and informal volunteering in later life is positively associated with self-report health, cognitive functioning, physical strength and balance, and fewer depressive symptoms (Morrow-Howell, 2010; Whetung & Gonzales, 2025). Formal and informal volunteering among retirees also increases the likelihood of them returning to the labor force, that is, unretiring (Gonzales & Nowell, 2016). It is theorized that helping an organization or neighbors expands weak social ties and improves overall health, all of which pulls older retirees back to the labor market often within two to four years of retirement. Children who are tutored and mentored by an older volunteer experience higher academic achievement and socioemotional learning relative to controls (AARP, n.d.). The rewards of volunteering also spillover to the neighborhood and family with older tutors sharing their skills with neighboring children. Adult children of older tutors report being less worried about mom and dad because of their volunteer activity. More than 20.7 million older adults contributed 3.3 billion hours of service in 2015, which was valued at approximately \$75 billion of economic contribution according to a federal agency, The Corporation for National and Community Service (AmeriCorps, 2015). In 2023, approximately 28% of older adults aged 55+ volunteered for an organization (AmeriCorps, n.d.) and about 62% of older adults also helped neighbors and friends, otherwise known as informal volunteering (AmeriCorps, n.d.). Nationally representative datasets consistently reveal inequitable engagement rates by gender, race, ethnicity, and education. However, the racial profile of older adults serving with AmeriCorps, a federally funded program in the United States, is more diverse than that found with nationally representative datasets (AmeriCorps, n.d.), suggesting that this federal agency is able to recruit and retain diverse populations into civil service to promote population health.

Family Caregivers are Younger, More Diverse, and Often Working

Health inequities at the population level necessitate family caregiving at the micro level. Today, family caregivers are younger than in the past, often working and providing care at the same time. Family caregiving increased from 20 million adults in 2015 to 63 million adults in 2025 in the United States, which means 1 in 4 adults are at times providing complex and demanding family care, often in isolation (AARP, 2025). Although the majority of family caregiving goes unpaid, it is valued at \$600 billion per year (Reinhard & Houser, 2023). The Administration for Community Living defines family caregiving as individuals who provide a broad range of assistance to people with chronic or disabling conditions – which often include activities of daily living such as feeding, toileting, and bathing. Given the prevalence of family caregiving, nearly

every race, ethnicity, and income bracket are impacted. Racial and ethnic minorities constitute a larger share of these caregivers than in the past. Black, Hispanic/Latino, Asian American, Native Hawaiian and Pacific Islander, American Indian and Alaska Native, and LGBTQ family caregivers and care recipients report distinct care experiences and needs for culturally appropriate care shaped by historical marginalization (Reinhard & Houser, 2023). Family caregiving is dynamic and complex, given care recipients' and providers' changing health, fluctuating work-family demands, and inconsistent formal support. While family caregiving can result in purpose in life, personal satisfaction and fulfillment, and at times promote longevity (Bhattachayya et al., 2024; Fredman et al., 2015), it can also compromise health with increased social isolation, strained family relationships, heightened stress and burnout, and physical risks from tasks such as lifting or assisting loved ones with limited mobility (Bom et al., 2019). Family caregiving often leads to lost wages, career interruptions, and out-of-pocket expenses, which reduces caregivers' capacity to save and invest for their own retirement. As a result of these suppressed lifetime earnings and savings in early and midlife, many caregivers ultimately receive less from Social Security when they retire in later life. These deleterious outcomes impact women, and women of color, more so than men, especially in later life with fewer economic resources.

Crosscutting Themes:

Institutional Capacity to Address Cumulative Dis(Advantage) and Intersectionality

Productive roles are shaped by social policies and institutional capacity to recruit, retain, and optimize older adults' engagement in work, volunteering, and caregiving (Figure 1). It is within the institutional setting, inclusive of social policies at the federal, state, and local levels, as well as the cultural societal norms and within organizations, that intervention research can address these inequities. Engagement in productive activities is also shaped by cultural expectations. Policymakers and researchers should be mindful that engagement is a choice, an opportunity, not something to be mandated or added to the already complicated constraints and obligations, especially among marginalized populations that have experienced lifelong disadvantages in education, occupations, civic activities, and family caregiving. Moreover, policymakers and researchers need to keep intergenerational conflict and harmony in mind, as divisive rhetoric can create artificial cleavages in society, resulting in discrimination and prejudice across socially constructed groups, such as young and old, White and non-White.

Research is needed to model the causal mechanisms that drive inequities across the lifespan. Adults at risk of disengagement in later life likely experienced a lifetime of disadvantages. Nationally representative data exists, such as the Health and Retirement Study and sister datasets, funded by the National Institute on Aging and Social Security Administration, should be exploited for scientific discoveries, especially in the areas of genetic and environmental diversity. The scientific insights to date warrant further support from Congress. Notably, there are major research gaps. The preponderance of the scientific base constitutes basic research, which is important, but more interventions, especially experimental research, is needed to determine the causal mechanisms that bolster health and wealth within workplaces, civic organizations, and the interaction between family and social structures. Research that examines

cohort effects also has promise, so that we can capture individual agency and structural constraints. We now need to take these basic research findings from secondary datasets and apply the learnings to real world experiments in employment, civic, and caregiver settings.

In some instances, we need to take stock of highly rigorous experimental interventions and follow-up with participants. For example, AARP's Experience Corps program matches elementary school children in second and third grades with a trained and supervised older tutor, mostly retired older African American women who live in the neighborhood and held careers in education. Experimental and quasi-experimental research demonstrated children who were matched with an older tutor showed improvements in socioemotional health and academic achievement; fewer children were referred for discipline. Brain plasticity, cognitive health, reduction in depression, and improvements in physical health were noted among older tutors. These results were achieved in spite of these schools being under-resourced and in low-income communities. Programs like these not only need to be scaled but we also need to follow these children and volunteers to determine long term effects. Were these children more likely to graduate from high school and college? Given improvements in socioemotional health, are they more likely to demonstrate higher levels of mental and physical health, social connections, and prosocial behaviors relative to the control group? Are there significant differences in career choices, income, and financial savings? Do the cognitive, mental, social, and physical health among older volunteers persist, and if so, for how long? Might high intensity volunteering expand the healthspan, and especially among minoritized groups? Collecting data on them can provide scientific insights into resilience and the institutional arrangements that narrowed, or widened, health and wealth inequities.

Older adults' experiences of (dis)advantages differ based on race, gender, socioeconomic status, explicit physical features, immigration history, and other social identities. As a prevalent source of discrimination for older adults, ageism often intersects with other systems of oppression, such as racism, ableism, and classism (Steward et al., 2023; Wang et al., 2022, 2025), creating compounded disadvantages that shape opportunities for productive engagement and their associated outcomes. Future research should take intersectional approaches to understand how multiple, interlocking identities influence productive involvement through leveraging longitudinal datasets, and primary data collection through experimental and quasi-experimental interventions. Funders and researchers should prioritize experimental interventions to test causal mechanisms that reduce health and wealth inequities while promoting inclusive engagement. Policymakers need to integrate intersectional frameworks to develop interventions that simultaneously address age-based prejudice and the intersecting structural inequities that magnify its effects on older adults' access to productive roles like work and volunteering.

Conclusion

Understanding exactly how work, volunteering, and caregiving improve health and wealth will take time, but many marginalized communities have urgent needs and significant strengths that additional investment can augment. Concurrent with the expansion of existing national programs Title V of the Older Americans Act (SCSEP), AmeriCorps, Experience Corps with AARP, we

must also create opportunities for communities to grow local programs that are already working. For example, Indigenous communities in the United States are diverse in ecology, age, health, wealth, culture, and history. To imagine a one-size-fits all approach to intervention represents a fundamental misunderstanding of these communities and overlooks existing local initiatives that may already be creating stimulating jobs, opportunities for volunteering, and support for caregivers, but lack the rigorous evidence base largely due to constrained funding opportunities. Policies that create flexible funding for local programs, especially in under-resourced communities, may be an effective strategy for increasing access to productive activities at all ages. Such strategies are not unheard of at the federal level. The Social Innovation Fund, a federal grant program created in 2009 and administered by the Corporation for National and Community Service, was designed to identify non-profit organizations around the country with potential for significant social impact and growth. Funds from this program not only helped to scale community-based organizations, but it also funded evaluations of their work to help future program refinement and expansion. Similar programs, perhaps on a smaller scale, could be leveraged to directly support existing community-driven programs and help them develop the evidence and infrastructure to achieve sustainability. In order to create community capacity to support productive activities, we must be willing to invest in the development of local programs alongside the expansion of federal ones.

The United States stands to learn from policies abroad. Providing all citizens in Singapore, for example, with educational credits and subsidies for lifelong learning and upskilling as a way to maintain their market relevance. Sweden links pension benefits directly to lifetime contributions and life expectancy, which will likely incentivize working longer. Japan revised their mandatory retirement age to 70 or companies must implement a continuous employment system that keeps older workers on the payroll through re-employment contracts. Germany allows for a combination of drawing a partial pension while continuing to work, with incentives that ensure the additional earnings lead to higher future pension payments, which could encourage phased retirement.

The United States is undergoing tremendous social policy changes, reducing institutional capacity across the federal, state, and local levels, as well as within the not for profit sector. The current administration is fundamentally shifting responsibility onto individuals and families for their own well-being. Budgetary cuts to Medicaid, SNAP, ACA, The Senior Community Service Employment Program, AmeriCorps, all represent a reduction of institutional capacity for older adults to be recruited, retained, and trained into work and volunteer roles. The long term effects of defunding the Department of Education will be revealed in the decades to come. Additional policy changes to healthcare and food support will ultimately undermine the health and well-being of the most vulnerable, which will likely further suppress the capacity of the older adult population to contribute to society through productive activities. It is important scientists continue to monitor population datasets and augment findings with primary data collection to fully characterize how these policy changes have impacted population health, health equity, and productive activities. Recent federal legislation has accelerated the depletion of Social Security Trust Funds, moving the critical year from 2034 to 2031. Between now and then, we will need rigorous research to help inform social policy, employers, and individuals on how to work

longer, while also juggling caregiving responsibilities, and possibly substituting these roles with volunteering to maintain health and social ties.

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Figure 1. Institutional Framework of Productive Aging

