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DOES THE UNDERREPRESENTATION OF YOUNG PEOPLE IN POLITICAL INSTITUTIONS MATTER FOR SOCIAL SPENDING?

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Abstract

Young people are underrepresented in most political institutions. While prior studies have investigated the causes behind the shortage of younger politicians in public office, there is a lack of research on the potential consequences for either substantive representation or policy outcomes. I theorize that the age of politicians affects how they allocate government spending on social welfare between age groups and over time. Using an original dataset of over 12,000 mayoral candidates in Japan (2006–2019) and a regression discontinuity design, I find that younger mayors increase their municipality's spending on child welfare for younger families, especially through long-term investments in infrastructure, whereas older mayors expand short-term benefits for the elderly. These findings provide evidence for a link between the descriptive and substantive representation of different age groups and suggest that greater youth representation can affect the well-being of younger people.

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Young people are underrepresented in most political institutions. Over half of the world's voters are under 40 years old, compared to 15% of national legislators (Inter-Parliamentary Union 2018). In many advanced democracies such as Japan, this disparity is even greater. Less than 7% of members of the House of Representatives are under 40, compared to nearly a third of the voting-age population. Local politicians play a critical role in the provision of government services, yet they too tend to be older than most of their constituents. The average municipal assembly member begins their term at 59 and the average mayor at 62. Just 6% of assembly members and 2% of mayors are under 40.[1]

Although scholars have studied the *causes* of the age bias in political institutions (e.g., Lawless and Fox 2015; Stockemer and Sundström 2018), there is a lack of research on the potential *consequences* for either substantive representation or policy outcomes. This is surprising given that there are well-developed literatures on how other characteristics such as race, gender, class, and sexual orientation influence elite behavior (e.g., Broockman 2013; Carnes and Lupu 2014; Lowande, Ritchie and Lauterbach 2019; Reynolds 2013). Moreover, the shortage of younger politicians across all levels of government is concerning for several reasons. There are many issues that disproportionately affect the young, from policies on education, unemployment, and childcare to those addressing longer-term challenges such as climate change, public debt, and social welfare reform. Without the greater presence of younger politicians in elected office, the policies implemented by mostly older politicians may be detrimental to both the short- and long-term interests of younger generations.

In this article, I examine how the age of mayors in Japan affects the welfare policies they enact in office. Intergenerational conflict over welfare is an especially salient issue in many advanced democracies that confront the challenges of declining birth rates and aging populations, as shrinking workforces struggle to support rising welfare costs for growing elderly populations. Japan, as the world's oldest country, is at the forefront of this demographic trend. It thus provides an ideal setting to analyze how politicians of different ages allocate

[1]Based on data collected by the author from Japanese election websites and newspaper archives.

scarce resources between competing priorities for social welfare. On the one hand, spending on child welfare for younger families can increase fertility rates and female labor force participation, which addresses the labor shortage and long-term sustainability of the welfare system (Fukai 2017; Iversen and Rosenbluth 2010). On the other hand, spending on elderly welfare can help governments keep up with the pressing financial and healthcare needs of an increasing number of senior citizens (Harper 2014; Muramatsu and Akiyama 2011).

I theorize that a politician's age can influence their welfare policies in two ways. First, I expect that age affects elite preferences for the redistribution of welfare between age groups. I anticipate that younger politicians will promote welfare policies that benefit younger families more than older politicians, who will instead favor policies that target the elderly. Second, I hypothesize that age shapes how politicians allocate welfare over time. I expect younger politicians with longer time horizons to be more willing to make long-term investments in welfare, whereas older politicians will emphasize short-term welfare spending.

I test these hypotheses using a regression discontinuity design (RDD) and an original dataset of Japanese mayoral elections matched with detailed municipal expenditures data. Younger and older mayors are not randomly distributed across municipalities, which differ in their welfare needs and preferences. By leveraging close elections between younger and older mayoral candidates, the advantage of my design is that I can estimate the causal effect of a younger (or older) candidate becoming mayor on welfare spending while holding constant the demographic composition, ideology, and socioeconomic characteristics of municipalities. Focusing on Japan offers further advantages because mayors have considerable discretion to implement their preferred welfare policies, and the municipal expenditures data allow me to identify spending targeted at different age groups and time periods. However, there is a lack of data on municipal elections. To fill in this gap, I use web scraping to assemble an original dataset of 12,191 mayoral candidates competing in 6,371 elections (2006–2019). I then supplement the findings from this new dataset with insights from interviews with 15 mayors and 20 municipal bureaucrats working inside social welfare departments.

I find a clear connection between a politician's age and their welfare policies. Younger mayors increase discretionary spending on child welfare for younger families by over 30% and double their municipality's prior investment in this area. In contrast, older mayors do not increase spending overall on elderly welfare but they do change the temporal dimension to these expenditures by decreasing long-term investment in favor of short-term benefits. Robustness checks further show that these results hold across alternative age cutoffs for younger and older mayors and are not driven by other candidate or municipality characteristics.

Overall, I provide evidence that the age of politicians matters for substantive representation and policy outcomes. While past studies on elite characteristics have tended to focus on how they influence redistribution *between groups* (Krcmaric, Nelson and Roberts 2020), my work shows that age is unique from other social identities as it also affects preferences for the allocation of welfare *over time*. Moreover, contrary to existing work on the age orientation of welfare programs, which emphasizes the role of electoral institutions (Lynch 2006; Estévez-Abe 2008), I find that even under the same majoritarian system the age of elected officials can make a substantial difference in spending that affects the public's well-being, especially individuals at the child-rearing life stage. Ultimately, my results show that the descriptive underrepresentation of young people in public office can harm their substantive representation, the degree to which their interests are reflected in welfare policies.

Age, Elite Behavior, and Welfare Policy

In most countries, elected officials tend to be older than most of the constituents they represent. Recently, this common feature of political institutions has attracted significant scholarly attention. However, studies to date have focused almost exclusively on the causes of youth underrepresentation rather than the consequences. In doing so, scholars point mainly to supply-side explanations, from a lack of political ambition among young people (Lawless and Fox 2015; Shames 2017) to restrictive political institutions such as candidate-centered electoral systems and high minimum age requirements to run for office (Joshi 2013; Stockemer

and Sundström 2018). Conversely, there is less evidence for demand-side explanations. In fact, most work finds that voters harbor stronger negative biases against older politicians and are quite supportive of having young people serve as their representatives (Eshima and Smith 2021; McClean and Ono 2020).

While research on the underlying causes behind the shortage of younger politicians is thus well under way, there is a lack of studies that explore whether this shortage affects the welfare of younger members of the public. This lacuna of research on consequences is surprising for at least two reasons. First, there is extensive research on how other aspects of a politician's biography can affect their behavior in office, from ascriptive characteristics such as gender and race to socializing experiences such as education and military service (e.g., Krcmaric, Nelson and Roberts 2020; Lowande, Ritchie and Lauterbach 2019). In general, studies find that representatives with certain characteristics and experiences often do a better job of incorporating the interests of voters with similar characteristics and experiences into the policy process. It is thus easy to imagine that age might similarly influence elite behavior and the extent to which youth interests are represented in policy outcomes.

Second, several studies find that governments differ dramatically in how they distribute welfare resources along two age-related dimensions: between age groups and over time. However, these works emphasize the role of political institutions rather than the ages of politicians. For example, Lynch (2006) argues that a country's welfare regime and type of electoral competition explain why some democracies spend much more on education and childcare for younger families, whereas others spend more on healthcare and pensions for the elderly. Studies on Japan similarly point to the electoral system as the primary reason for why the government has traditionally devoted more resources toward targeted benefits for the elderly and less toward universal programs for younger families (Boling 2015; Estévez-Abe 2008). As for the time dimension, it is often thought that the desire to win reelection leads politicians to prioritize short-term spending, which can deliver immediate welfare gains to their constituents in exchange for votes, over long-term investment, which tends to impose

costs on constituents in the short run for the potential of a greater welfare payoff in the long run. Many scholars thus argue that politicians will enact more long-term welfare policies if institutions such as term lengths, seniority systems, and safe seats can extend their expected time horizon in office (Dal Bó and Rossi 2011; Jacobs 2011; Simmons 2016; Titiunik 2016).[2]

Part of the reason for the lack of studies on the consequences of youth underrepresentation may stem from the belief that age is a "different" type of social identity (Bidadanure 2015). Unlike gender or race, age is universally experienced and changes at a uniform rate over time. While age discrimination certainly occurs, many have noted that it typically does not come with the same level of historical animosity, domination, and exclusion as other social identities (Mansbridge 1999; Phillips 1995). Others suggest that the universal nature of age could lead to greater intergenerational solidarity rather than conflict among the public (Goerres and Tepe 2010), which might indicate that younger and older politicians will promote similar welfare policies. In other words, the existing literature casts doubt on whether the findings from studies about other underrepresented groups extend to younger politicians in elected office (descriptive representation) and the policies they implement on behalf of younger citizens (substantive representation).

While few studies thus focus on age and elite behavior, there are two recent exceptions. The first is Curry and Haydon (2018), who provide evidence that older members of the US Congress are more likely than younger members to sponsor bills important to seniors, although this relationship only holds for low-salience legislation. For high-salience bills, the determining factor is instead the age demographics of a member's district. The second is Alesina, Cassidy and Troiano (2019), who find that younger mayors in Italy are more likely to increase spending in election years, which the authors argue is because of their stronger reelection concerns. However, neither study focuses on welfare policy, investigates whether a politician's age affects their decisions along both redistributive and temporal dimensions, or

[2]While these studies do not consider the age of politicians, their arguments imply that older politicians will promote more long-term investment because they are more likely to be protected by seniority systems and safe seats. In Japan, for example, studies find that electorally safe, senior politicians are more favorable toward long-term policies concerning taxes and trade policy (Kato 1994; Naoi 2015).

examines the link between the underrepresentation of young adults in political institutions and policy outcomes.[3]

This study is thus the first to systematically analyze how a politician's age affects the welfare policies they enact in office. Existing studies may be able to explain why some countries prioritize welfare spending on the elderly rather than younger families with children, or why some countries have welfare systems that are oriented more toward short-term rather than long-term spending. However, they cannot explain the substantial variation in both the type and amount of welfare services across municipalities in Japan. These municipalities share similar institutions, yet they exhibit vast differences in the level of care and protection they provide their citizens along both age group and time dimensions. Controlling for institutions and electoral conditions, I argue that the age of politicians can help us better understand this variation.

How a Politician's Age Affects Their Welfare Policies

I theorize that a politician's age will have two main effects on their welfare policies.

Age and Redistribution

My first expectation is that politicians will be more likely to promote and implement welfare policies that benefit members of their age group. There are at least three good reasons why we should expect this to be the case.

The first reason is that politicians may share the same welfare preferences as members of the public who are a similar age to them. While there is a lack of studies on elites, there is significant evidence that age influences the public's differing views about how governments should allocate welfare resources. Young people tend to favor more public spending on education, childcare, parental leave, maternity care, and family allowances, which directly benefit younger students and parents (Busemeyer, Goerres and Weschle 2009; Iversen and

[3]By relying on fixed effects regressions, both studies also face methodological challenges because there may be time-varying factors that influence both the ages of elected officials and government policies.

Stephens 2008). Older people, in contrast, typically prefer greater spending on pensions, senior services, and healthcare, which disproportionately benefit elderly retirees (Goerres 2009; Vlandas 2018).[4] If politicians bring these attitudes into office with them, then they may be willing to enact their preferred policies even if it costs them votes.

Second, age may shape a politician's electoral incentives to pursue a particular welfare agenda. Elected officials often build support groups with subsets of their constituency with whom they share a certain affinity, such as a shared social identity (Fenno 1978). Regardless of their personal preferences, a politician's age may give them a comparative advantage in making credible appeals to similarly aged voters on age-salient issues. Politicians may therefore enact the types of welfare policies that they expect will attract more votes from constituents who are closer to them in age and represent their core supporters. Elected officials may also feel pressures to emphasize certain welfare policies to avoid losing support as a result of acting contrary to voter expectations and age stereotypes.[5]

The third reason why a politician's age might influence their priorities for welfare spending is that age may affect a politician's competence in handling certain welfare issues. This competence may come from recent personal experience. Younger politicians are more likely to be raising younger children themselves, whereas older politicians are more likely to be confronting the financial and health challenges associated with aging and retirement. These skills may also reflect an informational advantage. Even if politicians do not have personal experience with welfare policies, they are likely to have similarly aged friends and peers who express their welfare needs to them. Greater information and personal experience may thus induce politicians to devote relatively more attention to those welfare policies with which they feel they have more expertise (Burden 2007).

[4]The extent of intergenerational differences in welfare preferences varies by country and policy issue (Busemeyer, Goerres and Weschle 2009). Recent experimental work by Kweon and Choi (2021) finds significant intergenerational conflict in attitudes toward welfare redistribution in Japan.

[5]For example, some research shows that female candidates are more likely to be punished by voters when they break with gender stereotypes (Huddy and Terkildsen 1993). McClean and Ono (2020) find that Japanese voters expect candidates to emphasize welfare policies important to their respective age groups, although they do not investigate whether voters punish candidates who deviate from these expectations.

While these theoretical pathways are difficult to disentangle using observational data, all three suggest that politicians will advocate more fervently for welfare policies that benefit their respective age groups. I anticipate that younger politicians will be more likely to promote policies that expand childcare facilities, tackle student debt, extend the length of parental leave benefits, invest in early childhood education, or increase the allowances and tax benefits that parents receive for having children. In comparison, I expect that older politicians will be more likely to support policies that protect or expand pensions, construct new nursing homes and facilities, use new taxes to finance social security benefits, or otherwise increase services for the elderly.

> **H1:** Younger politicians will allocate more welfare resources toward younger families than older politicians.
>
> **H2:** Older politicians will allocate more welfare resources toward the elderly than younger politicians.

Age and Time Horizons

My second expectation is that younger politicians will be more likely to increase long-term investment in welfare, whereas older politicians will prioritize short-term welfare spending.

The crux of this argument rests on the different time horizons of younger and older politicians. Relative to older politicians, younger politicians tend to have longer time horizons in terms of both their longer remaining careers and lifespans. This means that younger politicians have a longer period over which they can expect to benefit, whether politically or personally, from policies that bring longer-term social gains. Younger politicians may therefore discount the future less and care about it more, and thus be more willing to impose costs on their constituents in the short run (e.g., by increasing taxes) for the potential of a greater welfare payoff in the long run (e.g., via investment in social welfare).

While prior studies do not explore the link between a politician's age and their time horizon, there is evidence that the public's time preferences differ by age. For example,

Alesina and Passarelli (2019) show in a formal model that younger voters should be more willing than older voters to bear the short-term psychological costs associated with a policy change because they have a longer horizon over which they can benefit from that policy's improvement to the status quo. Several empirical studies similarly argue that younger people should be more likely than older people to take risks or forgo payoffs in the present for the promise of a larger payoff in the future. Evidence to support these arguments comes both from observational studies, which rely on financial and tax data to measure differences in consumption and investment behavior over time (Jianakoplos and Bernasek 2006; Palsson 1996), and experimental work, which simulates lottery or gambling scenarios (Albert and Duffy 2012; Gächter, Johnson and Herrmann 2007).[6]

Age-based time horizons may be especially influential on issues such as social welfare policy that have clear long-term implications for society. As the populations of many advanced democracies grow older, and the ratio of retirees to workers increases, there is a risk that benefits for future generations will have to be reduced for welfare systems to remain sustainable. Younger politicians may therefore be especially sensitive toward policies that address declining birth rates and female labor force participation, which directly affect the health of the future welfare system. By contrast, older politicians may be more concerned with protecting or expanding current benefits for the elderly. For example, an increase in the number of children may lead to an increase in benefits for the elderly in two decades when those children begin to enter the workforce, but the promise of such a solution is too distant in the future to significantly improve the welfare of present-day older people.

As with age and redistribution, politicians may allocate welfare in different ways over time because of their personal preferences, electoral incentives, relevant expertise, or some mixture of the three. Ultimately, I expect older politicians to be more supportive of short-term spending such as direct social payments to constituents or subsidies that immediately reduce the public costs of welfare services. In contrast, I anticipate that younger politicians

[6]For a discussion of the empirical challenges in measuring individual time preferences, see Jacobs (2011).

will promote more long-term investment in welfare such as by constructing new infrastructure or reducing present benefits to protect the future sustainability of the welfare system.

H3: Younger politicians will allocate more welfare resources toward long-term investment than older politicians.

H4: Older politicians will allocate more welfare resources toward short-term spending than younger politicians.

Research Design

Japanese Mayors

Japan offers an ideal setting to test these hypotheses because of the salience of welfare policy, the discretion that mayors have over welfare spending, and the puzzle posed by the variation in welfare services across municipalities that otherwise share similar institutions.

Thanks to its declining birth rate and rapidly aging population, social welfare has become one of the most pressing issues in Japanese politics. Japan's welfare costs, already the largest part of the government's budget, are expected to increase by 60% over the next two decades while the number of workers is set to shrink by 20% (Cabinet Office of Japan 2018).[7] With the exception of pensions, mayors are centrally involved in nearly every aspect of welfare policy, and municipalities distribute more than half (57%) of all welfare expenditures (Ministry of Internal Affairs and Communications 2020*c*).[8] Understanding how mayors allocate welfare resources between people at different life stages is thus crucially important, not only because it affects individual decisions about family planning, savings, investment, and retirement, but also because it has broader consequences for Japan's labor market, economic growth, and fiscal sustainability (Iversen and Rosenbluth 2010; Lynch 2006).

While higher tiers of government require that municipalities provide a minimum level of welfare services, mayors have significant powers to implement their preferred welfare agenda.

[7] Japan's population is also expected to decline from 127 million to 107 million by 2040.

[8] Although private companies also provide welfare services, most age-related care is either provided or heavily subsidized by the government (Estévez-Abe 2008).

In principle, mayors share these powers with municipal assemblies, but in practice, they have broad authority over welfare policy (Bessho 2012; Tsuji 2017). Mayors have the exclusive right to draft the annual budget and can introduce legislation, veto assembly resolutions, and modify the budget when the assembly is not in session. Mayors are also relatively free to enact their preferred policies because parties are less involved in local than in national politics, and nearly all mayors run as independents during elections. The level of autonomy afforded to mayors thus makes it easier to estimate the effect of a politician's age on their welfare policies without having to account for significant constraints imposed by other political actors.[9]

Studying the link between age and elite behavior in Japan also offers an opportunity to address a puzzle not readily explained by existing theories. Under Japan's unitary government structure, mayors across the country have similar institutional powers and are elected through the same plurality system to serve four-year terms with no term limits. Prior research on institutional incentives and time horizons would thus suggest that these mayors should pursue similar welfare policies (e.g., Lynch 2006; Jacobs 2011). In contrast to these expectations, however, Japanese mayors differ significantly in the level of welfare benefits they provide for younger families and the elderly, and the amount they dedicate to short-term spending compared to long-term investment (Fukai 2017; Murayama et al. 2011).

In fact, this combination of mayoral budget authority and variation in municipal welfare services often puts mayors on the front lines of responding to perceived generational inequalities in social welfare. In particular, many younger families complain about the substantial variation in childcare availability across municipalities. Despite Japan's declining birth rate, demand for publicly provided childcare has risen sharply in recent years due in large part to the increased participation of women in the workforce (Fukai 2017; Rosenbluth 2007). While some mayors have managed to keep up with demand, however, others have shied away from making the necessary long-term investments in childcare capacity. As a result, long waitlists for public daycare have become a major issue of contention in many municipalities, with

[9]In contrast, measuring the effect of a legislator's age on their welfare policies is more challenging because they have to work closely with other legislators, their party, and often the executive to pass welfare legislation.

some estimates suggesting that mas many as 600,000 to 850,000 children have been unable to find spots in recent years (Funakoshi 2013).[10]

The idea that younger mayors in particular promote investing in children matches well with the observed behavior of several mayors who have recently attracted national attention. For instance, when Shuhei Azuma, 28, managed to defeat a 61-year-old incumbent in Shijonawate to become the youngest mayor in Japan, he differentiated himself from his opponent during the campaign primarily by pledging to make increased support for child-rearing the center of his policy platform. Naomichi Suzuki, 31, in his first year as mayor of Yubari, abolished the vice mayor position and pressured the central government to restructure the aging mining town's debt repayment schedule to free up money to fund medical care for the city's infants. Suzuki went on to become the youngest governor in Japan in 2019. Finally, Naomi Koshi, 37, as mayor of Otsu, built 20 new nurseries to house 2,000 children, a program that successfully eliminated long waitlists for daycare spots in her city. She is also the first mayor in Japan to institute mandatory parental leave for both male and female city employees.

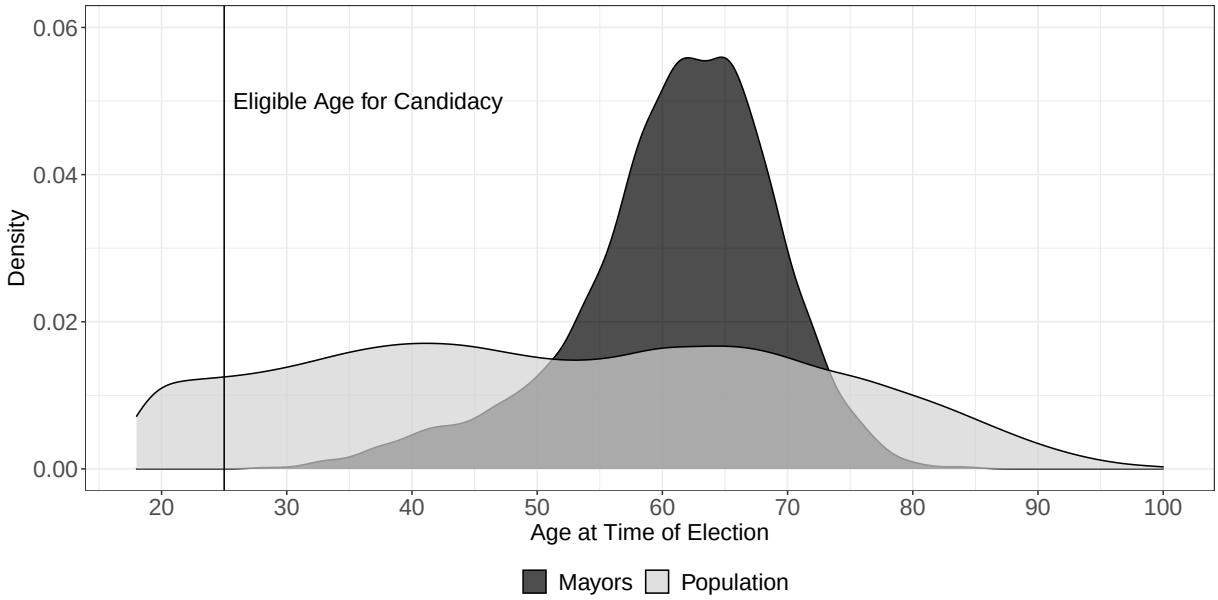
Japanese Municipal Elections Dataset

One challenge to the study of local politics in Japan has been the lack of existing datasets on either candidates or outcomes in municipal elections. This absence of systematic data on municipal politicians makes it impossible for researchers to answer questions such as whether the age of mayors affects welfare spending.

I fill in this gap by building an original, candidate-level dataset of municipal elections held between 1999 and 2019, which I call the Japanese Municipal Elections Dataset (JMED). To construct JMED, I first used web scraping to collect information on elections from go2senkyo.com, an online platform in Japan that aggregates data from newspapers, election returns, individual users, and candidates themselves. I then supplemented this information by searching through newspaper archives as well as candidate and municipal websites to

[10]The Japanese government typically estimates that only 30,000 to 45,000 children are on daycare waitlists, although this number does not include parents who have given up waiting.

Figure 1: Age Distribution of Mayors in Japan, 2006–2019



Sources: JMED; Ministry of Internal Affairs and Communications (2020*b*).

correct errors and further fill out the demographic information of candidates.

In this article I focus only on elections held after 2005, which include 6,371 mayoral elections across Japan's 1,741 municipalities. I exclude elections between 1999 and 2005, a period in which a significant number of Japan's municipalities merged. Also, the Koizumi administration implemented the "trinity reforms" in the early 2000s, which changed the nature of municipal finances, including how they funded social welfare programs (Gan 2009). Both of these factors complicate efforts to link the age of mayors to their welfare policies.

My final dataset includes information on the names, ages, gender, incumbency, partisanship, and vote totals for all 12,191 candidates who ran for mayor between 2006 and 2019. As discussed later, I further compile biographical information for a subset of politicians who competed in close races between younger and older candidates, including their level of education, party support, and experience in politics, government, or other professional fields.

Figure 1 compares the age distribution of mayors to that of the public. To run for mayor, an individual must be at least 25 years old and eligible to vote in the municipality. Mayors

elected during this period range in age from 28 to 84, although most are much older than the minimum age requirement. The median mayor's age is 62 at the start of their term and over 90% are over 50. Mayors in Japan are also almost entirely men (over 98%).

Mayors thus tend to be older than most of their constituents, whose median age is 45, and most voters, whose median age is 50. As Figure 1 shows, the greatest gap in representation occurs for younger citizens, as mayors under 50 are rare compared to the age distribution of the population. By contrast, people in their late 50s, 60s, and early 70s are significantly overrepresented in mayor's offices. For example, the number of mayors elected between the ages of 60 and 65 (2,088) during this period was almost 700 times greater than the number of mayors under 30 (three), over 18 times greater than the number under 40 (113), and nearly four times greater than the number under 50 (569).

Municipal Social Welfare

To study how a mayor's age affects their welfare policies, I merge JMED with detailed municipal budget reports published by the Japanese government (Ministry of Internal Affairs and Communications 2020*a*).[11] A benefit of this data is that municipalities distinguish between discretionary welfare spending, which is allocated during the annual budget process, and mandatory spending, which is typically ongoing and includes entitlement programs set by the central government (such as the child allowance system), interest payments on debt, and salaries for government personnel. This level of detail enables me to focus only on discretionary spending, where the mayor has more influence.[12]

Another benefit is that municipalities use discrete budget categories to account for discretionary welfare spending targeted at different age groups and time periods. The "Child Welfare" category includes spending on parental leave benefits, centers for maternity and daycare support, subsidies for parents, and benefits for children with disabilities. The national government disburses pensions, but the "Elderly Welfare" category includes public

[11]Social welfare is the largest expenditures category of municipal budgets (36%).

[12]Municipal spending on welfare is typically evenly divided between mandatory and discretionary spending.

expenditures on nursing services, subsidies, and facilities for the elderly.[13] For time periods, I use the two largest categories within discretionary spending, "Subsidies" and "Investment," as my proxies for short-term spending and long-term investment. These subsidies typically take the form of direct social payments to residents or funds used to immediately reduce the costs that the public pays to access welfare services, which mayors can use to deliver quick social gains to their constituents. In contrast, the investment category consists almost entirely of public works spending used to construct, expand, or upgrade childcare and elderly care centers. These projects are costly in the short term and can take several years to complete, but have the potential of greater long-term social returns by expanding the quality and capacity of welfare infrastructure.

Given the wide variation in welfare spending and population demographics across municipalities, I focus on the natural logarithm of spending per capita to reduce the possibility that a few outliers could drive my results.[14] Using the government's age cutoffs for who qualifies for welfare benefits, I therefore divide child welfare expenditures by the population under 15 years old and elderly welfare expenditures by the population 65 years and older.

Regression Discontinuity Design

Identifying the causal effect of a mayor's age on welfare expenditures is not easily solved through typical OLS methods. As shown in Tables A1 and A2, municipalities that have more young mayoral candidates also tend to be younger and more populous than those municipalities that have fewer young candidates. Moreover, it is unlikely that OLS will be able to account for other, unobservable differences between these municipalities that affect local preferences regarding the age of mayors and welfare services.

To address these concerns, I use a regression discontinuity design (RDD) to analyze close elections between younger and older mayoral candidates.[15] The core assumption of

[13]Although Japan's overall welfare system is biased toward the elderly (Lynch 2006), municipalities on average spend more per capita on child welfare than elderly welfare, though there is significant heterogeneity.

[14]I adjust spending into 2015 yen using the consumer price index. The results are similar for non-logged values of spending.

[15]This approach is similar to past studies that used RDDs to estimate the effects of a mayor's gender

this design is that in close single-member district elections, in which the winner changes discontinuously at 50% of the top-two candidate vote share, which candidate wins is thought to be as-if randomly assigned so long as there is some unpredictability in the ultimate vote (Lee 2008). Because of this as-if random assignment, municipalities on either side of the 50% vote threshold should be largely similar in observable and unobservable characteristics, differing only in whether they receive the treatment of electing the younger or older mayor. In the Appendix, I conduct several placebo tests to show that municipalities on either side of the election threshold are balanced in terms of their population size, age demographics, and pre-existing social welfare infrastructure and expenditures (Tables A3 and A4). McCrary (2008) density tests further indicate that there is no evidence of sorting among younger and older politicians at the election threshold (Figure A1).

One challenge to adapting close-election RDDs to study age is that identifying who qualifies as a relatively "younger" or "older" candidate can vary depending on the cultural and institutional context (Joshi 2013; Stockemer and Sundström 2018). I begin with age cutoffs of 50 for a younger mayor and 70 for an older mayor, which represent approximately the youngest and oldest 10% of candidates, respectively (Figure 1). These ages are particularly salient for age-related welfare, as candidates in their late 20s, 30s, and 40s represent the typical age range of younger parents who receive child welfare benefits, while candidates in their 70s and 80s are in the age group most likely to receive elderly welfare benefits.

I analyze races with younger mayors separately from those with older mayors, where the reference group for both is predominantly middle-aged candidates in their 50s and 60s, who make up 80% of candidates. For the two RD analyses, I thus focus on close races in which one of the top-two candidates is under 50 (70 or older) and the other is 50 or older (under 70). The running variables are the vote margins for candidates under 50 (70 and over), and the average age gap between candidates is 19.4 years (14.3 years). After presenting the main results, I then test their robustness using alternative age cutoffs.

(Ferreira and Gyourko 2014), partisanship (De Benedictis-Kessner and Warshaw 2016; Gerber and Hopkins 2011), and race (Hopkins and McCabe 2012) on policy outcomes.

For the outcome variables, I follow the example of De Benedictis-Kessner and Warshaw (2016), who suggest differencing the dependent variable to increase statistical efficiency. This means that I estimate treatment effects on changes in welfare spending rather than on levels. The results for the first difference of my logged dependent variable can be interpreted approximately as the percentage change in expenditures due to electing a younger or older mayor.[16] My main analyses focus on the differences in spending on child and elderly welfare between the year before the election and the second year of the mayor's term.[17]

Results

Age and Redistribution

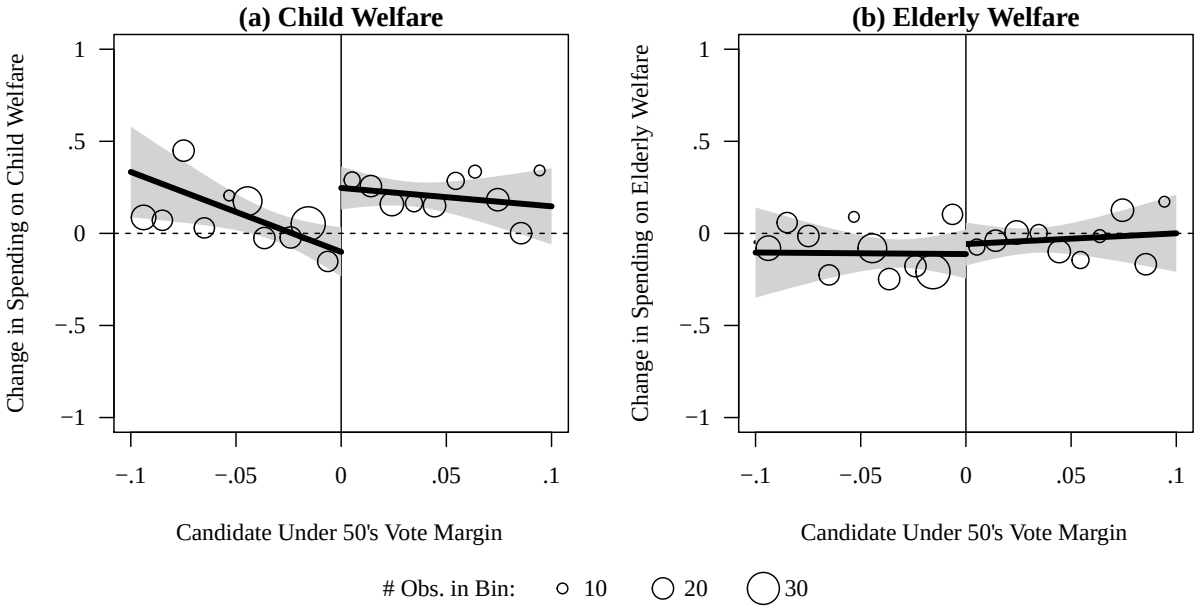
Do mayors allocate more welfare resources toward members of their age group? Figure 2 presents a graphical representation of the RD results for races with younger candidates. The results for child welfare are in panel (a) and for elderly welfare in panel (b). The y-axis in each plot is the logged per capita change in spending for each welfare category from the year before to the year after the mayoral election, and the x-axis is the vote margin for candidates under 50 in that election. The circles represent bins of the raw data and are sized according to the number of observations. On each side of the hypothesized discontinuity, where the margin of victory is equal to zero, I fit lines using a local linear smoother. The gray shaded areas represent 95% confidence intervals.

Figure 2 shows that younger mayors increase discretionary spending on child welfare relative to older mayors. Looking first at panel (a), we can see a clear, vertical jump at the election threshold. Municipalities that narrowly elect the candidate under 50 increase their spending on child welfare compared to municipalities that narrowly elect the older candidate, which tend to decrease spending on children. By comparison, the lack of a significant jump

[16] Tables A5 and A6 provide summary statistics for the RD analyses.

[17] I focus on two years later to balance between giving the new mayor time to have an impact on the budget and endogenous responses from other political actors to the mayor's influence that may arise later in the term (De Benedictis-Kessner and Warshaw 2016).

Figure 2: Younger Mayors Spend More on Child Welfare



Notes: Lines are fit using local linear regression on either side of the election threshold.

Table 1: Younger Mayors Spend More on Child Welfare

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50	.361**	.290***	.367***	.457**	.050	.098	.091	−.071
	(.146)	(.098)	(.133)	(.194)	(.105)	(.082)	(.111)	(.145)
Bandwidth	.078	.156	.200	.200	.092	.184	.200	.200
N	305	503	568	568	362	542	568	568

Notes: The optimal bandwidth (h) is chosen to minimize mean square error. *p<.1; **p<.05; ***p<.01.

in panel (b) suggests that younger mayors do not change spending on elderly welfare.

To test these results more formally, Table 1 presents several models of the RD effect. For each spending category, I first calculate the estimate using local linear regression and an optimal bandwidth (h) to minimize the mean square error (Cattaneo, Idrobo and Titiunik 2019). I then test whether the results are robust to widening the bandwidth ($2h$) to include more observations around the treatment threshold and changing the functional form to be

quadratic and cubic.[18]

The results from Table 1 reinforce the findings from Figure 2 that younger mayors direct more welfare resources toward younger families than older mayors. The effect is not only statistically significant but also substantively meaningful. Model 1 finds that mayors under 50 increase discretionary spending on child welfare by as much as 36% relative to mayors 50 and older, and this effect holds across Models 2–4. In the average municipality in Model 1, a 36% increase corresponds to spending nearly 21,000 yen ($192) more per child under 15 or 365 million yen ($3.4 million) more in total. In contrast, the effects of younger mayors on elderly welfare expenditures are not significant in Models 5–8. Together, these results offer support for H1. Younger mayors increase their municipalities' spending on benefits for younger families relative to middle-aged and older mayors.

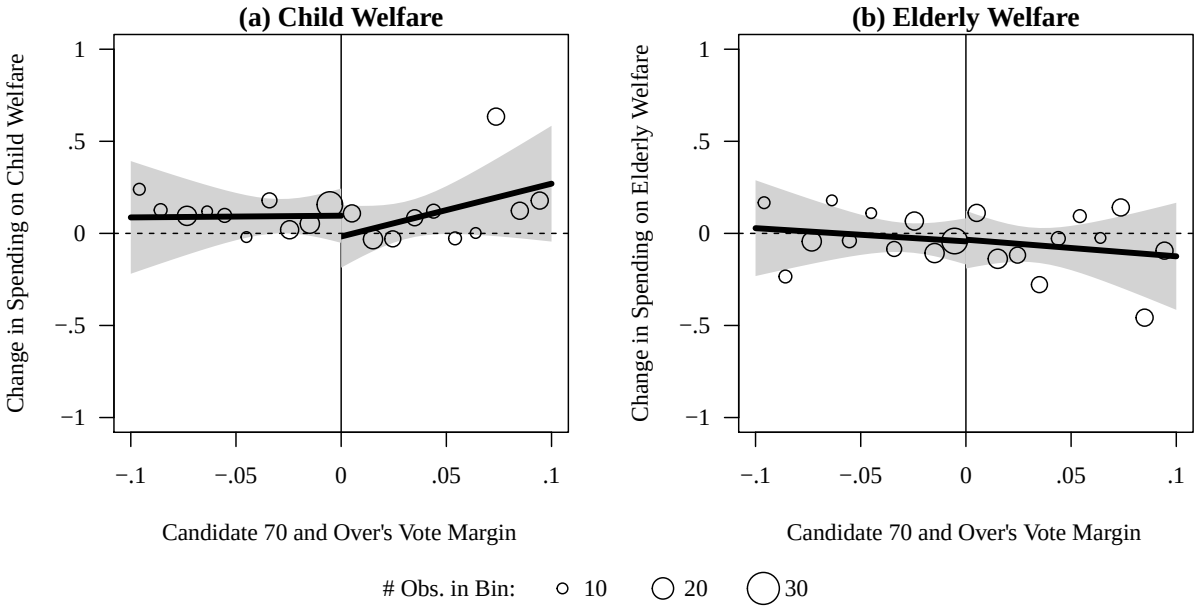
Do older mayors similarly increase spending on the elderly? To test H2, Figure 3 repeats the analysis from Figure 2 for races in which one candidate is 70 or older and the other is under 70.

The RD plots in Figure 3 show that older mayors do not have a significant impact on either child or elderly welfare expenditures. These null findings are further supported by the lack of any significant effects in Table 2. In sum, I do not find evidence in support of H2. Mayors 70 and over do not increase their municipalities' discretionary spending on welfare benefits for the elderly relative to mayors under 70.

Together, these results offer support for an asymmetric effect of a mayor's age on their welfare spending. Younger mayors allocate more resources toward younger families, but older mayors do not similarly distribute more resources toward the elderly. Notably, the increases made by mayors under 50 on child welfare spending do not come directly at the expense of elderly welfare. These asymmetric effects could reflect the asymmetric nature of age-related welfare. There may be a stronger link between age and redistribution among younger mayors because younger people can expect to become older and benefit from elderly

[18]Standard errors clustered by municipality are in parentheses.

Figure 3: Older Mayors Do Not Spend More on Elderly Welfare



Notes: Lines are fit using local linear regression on either side of the election threshold.

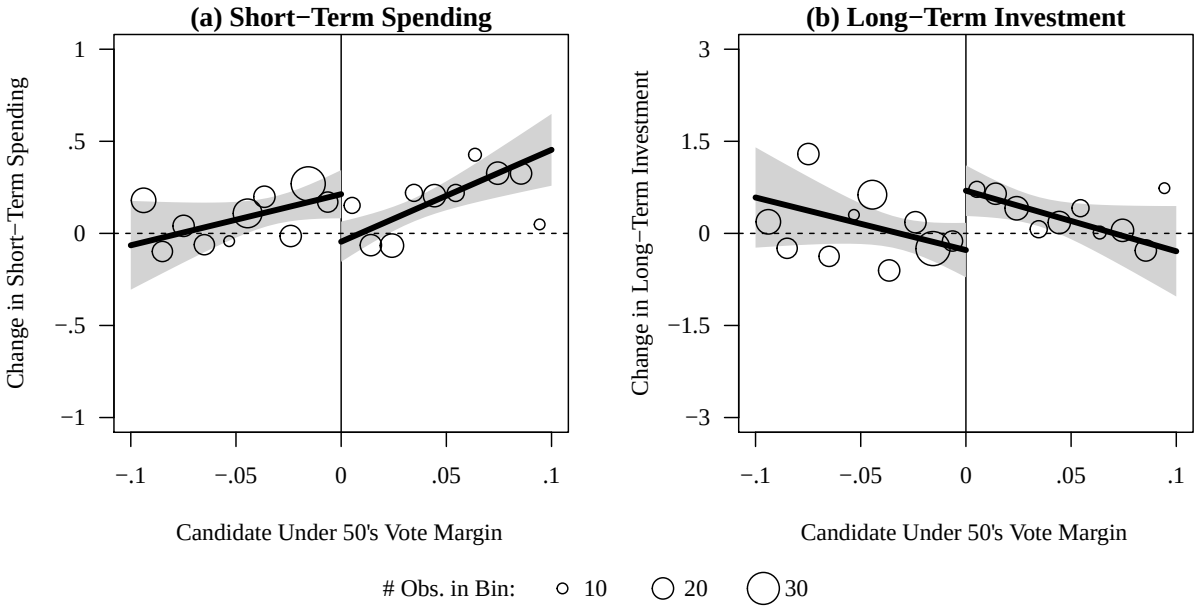
Table 2: Older Mayors Do Not Spend More on Elderly Welfare

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over	−.092	−.037	−.115	−.105	.009	−.049	.040	.078
	(.137)	(.104)	(.161)	(.219)	(.112)	(.087)	(.122)	(.150)
Bandwidth	.123	.246	.200	.200	.098	.196	.200	.200
N	346	509	468	468	291	463	468	468

Notes: The optimal bandwidth (h) is chosen to minimize mean square error. *p<.1; **p<.05; ***p<.01.

welfare in the future, whereas older people will not benefit from child welfare. It is also possible that older constituents have a much stronger constraining effect on mayors than younger constituents because of their greater political participation, which could explain the null effect of a mayor's age on elderly welfare.

Figure 4: Younger Mayors Increase Long-Term Investment in Child Welfare



Notes: Lines are fit using local linear regression on either side of the election threshold.

Table 3: Younger Mayors Increase Long-Term Investment in Child Welfare

	Δ Child Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50	−.231**	−.194***	−.274***	−.393***	.999**	.714**	1.011**	1.309**
	(.101)	(.084)	(.100)	(.119)	(.475)	(.318)	(.433)	(.642)
Bandwidth	.062	.124	.200	.200	.079	.158	.200	.200
N	248	443	568	568	307	506	568	568

Notes: The optimal bandwidth (h) is chosen to minimize mean square error. *p<.1; **p<.05; ***p<.01.

Age and Time Horizons

Do younger mayors allocate more welfare resources toward the long term than older mayors? To investigate H3, Figure 4 begins by exploring the impact of mayors under 50 on short-term spending and long-term investment in child welfare.

Figure 4 finds that younger mayors make significant changes to both aspects of the child welfare budget, albeit in opposite directions. As suggested by H3, panel (b) finds that mayors in their 20s, 30s, and 40s increase their municipality's long-term investment in child welfare relative to mayors 50 and older. In doing so, however, panel (a) finds that younger mayors also decrease short-term spending relative to middle-aged and older mayors, albeit by a smaller percentage.

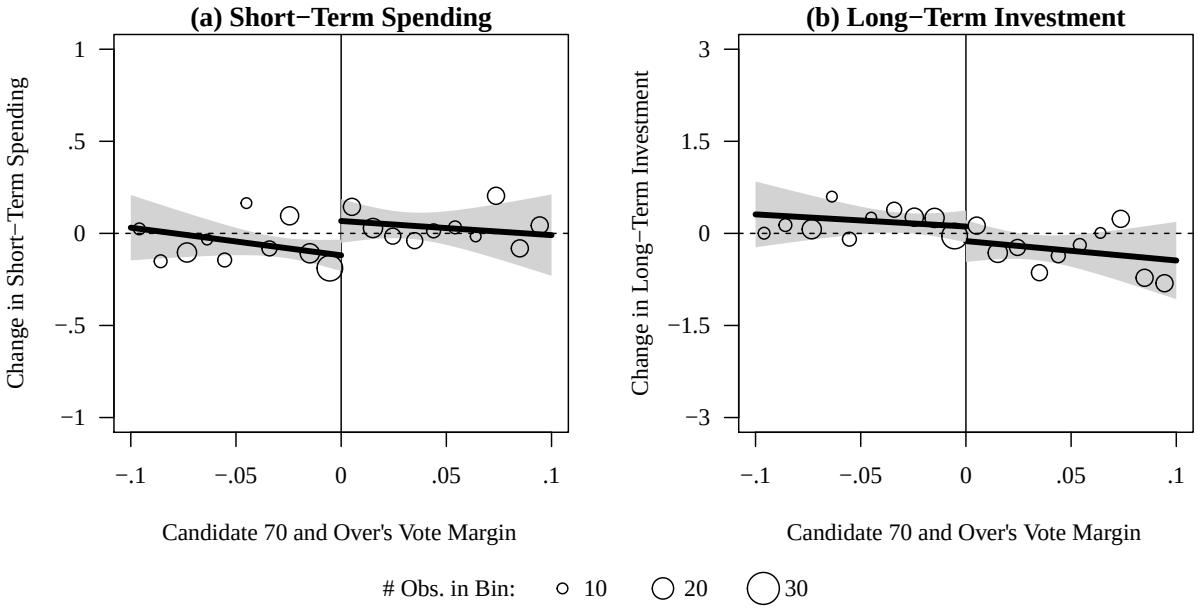
Table 3 supports these findings. Younger mayors decrease short-term spending by 23% (Model 1), but increase long-term investment by nearly 100% (Model 5). These estimates are robust to each of the eight specifications shown in Table 3 and offer strong evidence in support of H3. Younger mayors expand long-term investment in child welfare more than middle-aged and older mayors.

If younger mayors are more likely to shift spending on children toward the long term, then do older mayors shift spending on the elderly toward the short term? Figure 5 tests H4 by analyzing whether mayors 70 and over change the temporal nature of welfare benefits provided for the elderly in their municipalities.

Figure 5 shows that older mayors have a smaller, albeit statistically significant effect in the opposite direction. The jumps at the election threshold suggest that older mayors increase short-term spending on the elderly but decrease long-term investment. As shown in Table 4, the estimated effects are clearer for spending than investment. Model 1 finds that mayors 70 and over increase short-term spending on elderly welfare by 19% relative to mayors under 70. The results also indicate that older mayors reduce long-term investment in elderly welfare, although the effects only reach statistical significance in Model 6.

In sum, I find that while the effect of a mayor's age on the redistribution of welfare between age groups is asymmetric, the effect on how mayors allocate welfare over time is more symmetric. Younger mayors are willing to decrease short-term spending that benefits younger families to increase long-term investments in child welfare infrastructure. Older mayors prefer instead to direct spending on the elderly toward the short term, and if anything

Figure 5: Older Mayors Increase Short-Term Spending on Elderly Welfare



Notes: Lines are fit using local linear regression on either side of the election threshold.

Table 4: Older Mayors Increase Short-Term Spending on Elderly Welfare

	Δ Elderly Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over	.190**	.153**	.215***	.259**	−.228	−.419**	−.205	.058
	(.074)	(.059)	(.079)	(.108)	(.234)	(.191)	(.245)	(.295)
Bandwidth	.097	.194	.200	.200	.088	.176	.200	.200
N	285	461	468	468	263	440	468	468

Notes: The optimal bandwidth (h) is chosen to minimize mean square error. *p<.1; **p<.05; ***p<.01.

they are willing to decrease the level of long-term investment in elderly welfare.

Robustness Checks

In the Appendix, I conduct several analyses to assess the sensitivity of these findings. Placebo tests show that younger and older mayors do not influence areas of the welfare budget

that they should be unable to change—namely, areas that are determined by the central government according to formulas based on income and demographics (Tables A7 and A8). The lack of any significant results suggests that my findings capture the role of mayoral discretion and not changes in municipal income levels or age demographics over time.

The results are also robust to alternative age cutoffs for both younger and older mayors (Figures A2, A3, A4, and A5). The RD estimates of younger mayors on child welfare spending (H1) and long-term investment (H3) remain statistically significant for any cutoff between the ages of 42 and 52 with peaks at 43 and 44, respectively. At the peaks, the results suggest that younger mayors increase discretionary spending on child welfare by 42% and investment by 154% relative to middle-aged and older mayors. In the case of older mayors and short-term spending on elderly welfare (H4), the RD effect is significant for cutoffs between 67 and 73, with a peak of a 21% increase at 68.[19] Additional tests also show that the results are not driven by candidates close to one another in age who happen to fall just on either side of the chosen age cutoffs (Tables A9, A10, A11, and A12).

Ruling Out Alternative Explanations

Apart from robustness checks, I test two alternative explanations. The first is that my focus on welfare spending could be obscuring a broader relationship between the age of mayors and municipal expenditures or revenues. However, I find no evidence that a mayor's age significantly affects other budget categories (Tables A13 and A15). Notably, younger and older mayors do not differ systematically in the transfers they receive from the central government (Tables A14 and A16), which represent a key revenue source for municipalities (Catalinac, Bueno de Mesquita and Smith 2020). Instead, mayors fund their welfare policies by reallocating money within the budget and, in the case of younger mayors, issuing municipal bonds to fund long-term investments in childcare.

A second alternative explanation is that there could be some other factor that is correlated both with a mayor's age and their welfare policies, and it is this factor that drives the

[19]Below 42 and above 73, the number of observations starts to become too small to estimate an RD effect.

observed effects. The RD balance tests discussed earlier provide some reassurance that this is not the case, as municipalities that narrowly elect younger or older mayors are similar in observable characteristics (Tables A3 and A4). All results also hold with the inclusion of control variables and year fixed effects (Tables A17, A18, A19, and A20). To further address this concern, I collected extensive information on the candidates in the RDDs, including their gender, incumbency status, education, partisan support, and prior professional, government, and political experience. I find no evidence that age is purely a proxy for some other ascriptive characteristic or experience that can explain the observed patterns in welfare spending (Figure A6 and Table A21), which gives me further confidence in my results.

Heterogeneous Effects by Median Age of Population

I also explore potential heterogeneous effects between a mayor's age and the age demographics of their municipality. For example, a municipality with more young residents could heighten the electoral incentives of younger mayors to target similarly aged voters, or it could have a constraining effect on older mayors by making them pay more attention to welfare issues important to young people. However, I find no robust evidence of interaction effects between the age of mayors and the median age of their municipalities on either child or elderly welfare spending (Tables A22, A23, A24, and A25). The absence of any interaction effects suggests that younger and older mayors spend similar amounts on elderly welfare but different amounts on child welfare across younger and older municipalities. The persistence of these asymmetric effects raises concerns about whether younger citizens can get sufficient substantive representation if they lack descriptive representation in the mayor's office, which represent the vast majority of municipalities.

Evidence from Interviews with Mayors and Bureaucrats

Lastly, I draw on data collected during fieldwork in Japan to further support the main arguments and illustrate the mechanisms at work. This evidence includes interviews conducted with 15 mayors of different ages and 20 bureaucrats in social welfare departments across 20

municipalities in Japan in October 2018 and July 2019.[20]

Local officials were near unanimous in emphasizing the central role of mayors in determining a municipality's welfare expenditures. As one mayor put it, "Mayors have four key powers concerning welfare policy: making policy decisions, directing human resources to carry out that decision, organizing the budget to fund it, and, perhaps most critically, convincing the public that the policy is necessary."[21] Especially in the case of investment in child welfare, local bureaucrats stressed the importance of the mayor's leadership, "from finding the necessary funds, land, and teachers to open a new childcare center to addressing concerns from nearby residents about increased noise and traffic."[22] Many officials spoke about daycare projects that "never got past the planning stages or failed partway through" in neighboring municipalities, where older mayors were "not sufficiently concerned with the daycare shortage problem to take on the political risk of upsetting older homeowners."[23]

Interviews also helped to shed light on some of the mechanisms underlying the empirical findings. For example, regarding the asymmetric effects of age on welfare spending, every mayor spoke openly about the disproportionate power of older voters in elections and the difficulty in attempting to transfer welfare resources from the elderly to younger families. One younger mayor even described directly asking a group of older residents if they would be willing to accept less welfare to free up funds for children but found "such strong opposition that [they] decided to find money in other areas of the budget instead."[24] Likewise, while every mayor said that their goal is to represent "every member of their city," they were also keenly aware of how their age influenced voter perceptions of them.[25] Mayors revealed that they were more likely to spend their free time with similarly aged people, have members from their respective age groups in their official support groups (*koenkai*), and knew well their comparative advantage in appealing to similarly aged voters by drawing on their relevant

[20]See Appendix for details on interviews.
[21]Author interview, October 25, 2018.
[22]Author interview, October 18, 2018.
[23]Author interview, July 10, 2019.
[24]Author interview, October 24, 2018.
[25]Author interview, July 2, 2019.

personal experiences and expertise.[26]

Finally, when mayors discussed how their ages affected their preferences about welfare, the focus was often about timelines rather than redistribution. Younger mayors reported feeling that their age gave them a "stronger sense of crisis about Japan's population shrinking in the future."[27] They talked about "implementing policies that are sustainable for the next 20 to 30 years" and the "downstream benefits to investing in child welfare not only for the low birth rate problem, but also for increasing the number of women who work and encouraging more people to move to [their] municipality."[28] Older mayors, on the other hand, felt that their "age and life experience gave [them] a clearer sense of what is achievable within a mayor's term," and said that they could have the "greatest impact by focusing on the immediate needs of their constituents" in confronting the challenges associated with an aging population.[29]

Discussion

There is significant evidence that social identities such as race, gender, class, and sexual orientation affect elite behavior. In this article, I provide evidence that the age of politicians also matters for substantive representation and policy outcomes. Younger mayors enact substantially different welfare policies than older mayors. The election of a younger mayor leads municipalities to increase their discretionary spending on child welfare by 36% and double their prior investment in younger families. While older mayors do not spend more overall on elderly benefits, they do increase short-term spending by 19%.

These findings add to our understanding of why governments differ in the age and time orientations of their welfare programs and suggest that the age bias of political institutions deserves further attention. While the purpose of this article is not to offer specific recommendations about the optimal mix of welfare expenditures, the results do suggest that any

[26] Author interviews, October 5 and 24, 2018; July 8, 2019.
[27] Author interview, October 31, 2018.
[28] Author interviews, October 11 and 15, 2018.
[29] Author interviews, October 5 and 26, 2018.

reforms to increase the presence of younger people in public office will have policy implications. On the one hand, individuals who are worried about intergenerational conflicts over social welfare might view the asymmetric effects of a politician's age on welfare policies as good news. Younger mayors do not seek to defund programs for the elderly to increase benefits for younger families. On the other hand, the results and interviews reinforce past studies on the disproportionate power of the elderly in elections, casting doubt on whether younger people can garner sufficient support for issues that are important to them if they lack descriptive representation.

This paper also contributes to the literatures on elite behavior and representation by showing how a politician's characteristics can affect how they allocate government resources not only between groups with similar characteristics but also over time. Age is thus unique from other social identities in its effect on the time horizons of politicians. Future studies should investigate the extent to which age can similarly affect the decision making of politicians on other issues that involve trade-offs between short-term costs and long-term social returns such as climate change, government debt, and trade protectionism. Similarly, researchers should explore how the age of elected officials interacts with institutions that affect their time horizons, such as term limits.

In drawing broader lessons for policy making and existing theories, it is important to address the generalizability of these findings. Concerns about generalizability are common to RDDs, which have high internal validity but struggle with external validity. The advantage of my design is that I can compare the effect of a mayor's age on welfare expenditures among municipalities that otherwise should be very similar in observable and unobservable characteristics. However, the disadvantage is that the RDD only estimates the local average treatment effect for a subset of close elections between younger and older candidates.

Notably, prior research has suggested that the uncertainty of competitive elections should shorten the expected time horizons of politicians and discourage investment. Finding a substantial effect of a mayor's age on child welfare investment following close elections in

Japan, an arguably demanding test, may indicate that age differences among politicians will translate to other advanced democracies. However, more research is needed to explore the extent to which this is the case. Japan is a rapidly aging society where social welfare is an especially salient issue and politicians tend to be much older than the average constituent. Like Japan, other advanced democracies such as Germany and Italy have rapidly aging populations, while South Korea and the United States have few young people in public office. A question for future studies is whether we see similar age differences among elected officials in their welfare policies in these settings, and how this compares to politicians in countries with much younger populations, such as Brazil and India, or countries where younger people have much greater descriptive representation in political institutions, such as Sweden and Denmark.

Similarly, researchers should look into the influence of age on elite behavior across other political offices and issue areas. While I focus on mayors to better estimate the causal effect of a politician's age on their welfare policies, other studies could test whether younger legislators are more likely than their older colleagues to serve on committees that oversee childcare issues or respond to requests for welfare services from younger citizens. Beyond welfare, we know from other research that individuals of different ages often have different views on a wide range of issues, including same-sex marriage, immigration, gender equality, global governance, and environmental protection (Munger and Plutzer 2021; Wattenberg 2007). Future work should explore the extent to which younger politicians adopt different positions on these issues in office than older politicians.

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Appendix

Contents

1 Regression Discontinuity Design

1.1 Elections Included in the RD Analysis

Table A1: Mayoral Elections With and Without Younger Candidates

	At Least One Candidate Under 50					
	Yes		No		Difference in Means	
	A	SD(A)	B	SD(B)	A–B	SE(A–B)
Municipality						
Population (thousands)	150.179	(318.947)	59.942	(154.489)	90.238***	(11.167)
% Under 15	0.128	(0.022)	0.122	(0.024)	0.005***	(0.001)
% 15 to 64	0.605	(0.049)	0.584	(0.054)	0.021***	(0.002)
% 65 and Over	0.267	(0.064)	0.293	(0.072)	−0.026***	(0.002)
Region						
Hokkaido	0.065	(0.247)	0.107	(0.309)	−0.041***	(0.01)
Tohoku	0.065	(0.247)	0.144	(0.351)	−0.079***	(0.01)
Kanto	0.275	(0.447)	0.164	(0.37)	0.111***	(0.016)
Chubu	0.166	(0.373)	0.183	(0.387)	−0.017	(0.014)
Kansai	0.185	(0.389)	0.121	(0.326)	0.064***	(0.014)
Chugaoku	0.054	(0.225)	0.062	(0.241)	−0.009	(0.009)
Shikoku	0.042	(0.2)	0.058	(0.233)	−0.016**	(0.008)
Kyushu and Okinawa	0.148	(0.355)	0.162	(0.368)	-0.014	(0.013)
Election						
Year	2011.660	(3.49)	2011.454	(3.46)	0.206	(0.13)
Contested	0.894	(0.308)	0.601	(0.49)	0.293***	(0.013)
Winning Vote Share	0.613	(0.095)	0.613	(0.096)	−0.0001	(0.004)
Municipalities	592		1,681		1,741	
Prefectures	47		47		47	
Elections	859		4,409		5,268	

Notes: Mayoral elections with and without at least one candidate under 50 years old among the top-two candidates. Data comes from JMED and Ministry of Internal Affairs and Communications (2020*b*). *p<.1; **p<.05; ***p<.01.

Table A2: Mayoral Elections With and Without Older Candidates

	At Least One Candidate 70 and Over					
	Yes		No		Difference in Means	
	A	SD(A)	B	SD(B)	A–B	SE(A–B)
Municipality						
Population (thousands)	62.584	(177.103)	77.113	(197.202)	−14.529**	(6.616)
% Under 15	0.121	(0.026)	0.124	(0.024)	−0.003***	(0.001)
% 15 to 64	0.583	(0.055)	0.589	(0.054)	−0.006***	(0.002)
% 65 and Over	0.296	(0.074)	0.287	(0.071)	0.009***	(0.003)
Region						
Hokkaido	0.062	(0.241)	0.108	(0.310)	−0.046***	(0.009)
Tohoku	0.128	(0.335)	0.132	(0.338)	−0.003	(0.012)
Kanto	0.196	(0.397)	0.179	(0.383)	0.017	(0.014)
Chubu	0.213	(0.410)	0.174	(0.379)	0.040***	(0.015)
Kansai	0.131	(0.337)	0.131	(0.338)	−0.001	(0.012)
Chugaoku	0.069	(0.253)	0.059	(0.236)	0.010	(0.009)
Shikoku	0.049	(0.215)	0.057	(0.231)	−0.008	(0.008)
Kyushu and Okinawa	0.153	(0.36)	0.161	(0.367)	−0.008	(0.013)
Election						
Year	2012.118	(3.533)	2011.356	(3.437)	0.762***	(0.128)
Contested	0.748	(0.435)	0.628	(0.483)	0.120***	(0.016)
Winning Vote Share	0.622	(0.100)	0.611	(0.095)	0.011**	(0.004)
Municipalities	679		1,704		1,741	
Prefectures	47		47		47	
Elections	904		4,367		5,271	

Notes: Mayoral elections with and without at least one candidate 70 years old or older among the top-two candidates. Data comes from JMED and Ministry of Internal Affairs and Communications (2020*b*). *p<.1; **p<.05; ***p<.01.

1.2 Balance Checks for Pre-Treatment Covariates

Table A3: Balance Checks for Pre-Treatment Covariates (Younger Candidates)

	Mayors Under 50 vs. Mayors 50 and Over			
	RD Estimate	SE	Bandwidth (h)	N
Population	−66,740.732	(82,202.282)	0.104	410
% Under 15	−0.005	(0.006)	0.067	264
% 15–64	−0.010	(0.011)	0.078	310
% 65 and Over	0.015	(0.016)	0.073	288
Daycare Centers	−3.221	(11.275)	0.106	347
Elderly Care Centers	−0.722	(2.588)	0.104	373
Child Welfare	−563,949.711	(542,074.691)	0.086	339
Short-Term Spending	−72,979.836	(135,317.656)	0.093	370
Long-Term Investment	−189,625.020	(158,522.914)	0.088	345
Elderly Welfare	−363,049.914	(390,140.029)	0.104	409
Short-Term Spending	−114,875.591	(131,305.013)	0.104	408
Long-Term Investment	−176,209.647	(194,550.293)	0.095	379
Total Expenditures	−31,365,088.517	(34,793,449.345)	0.102	401

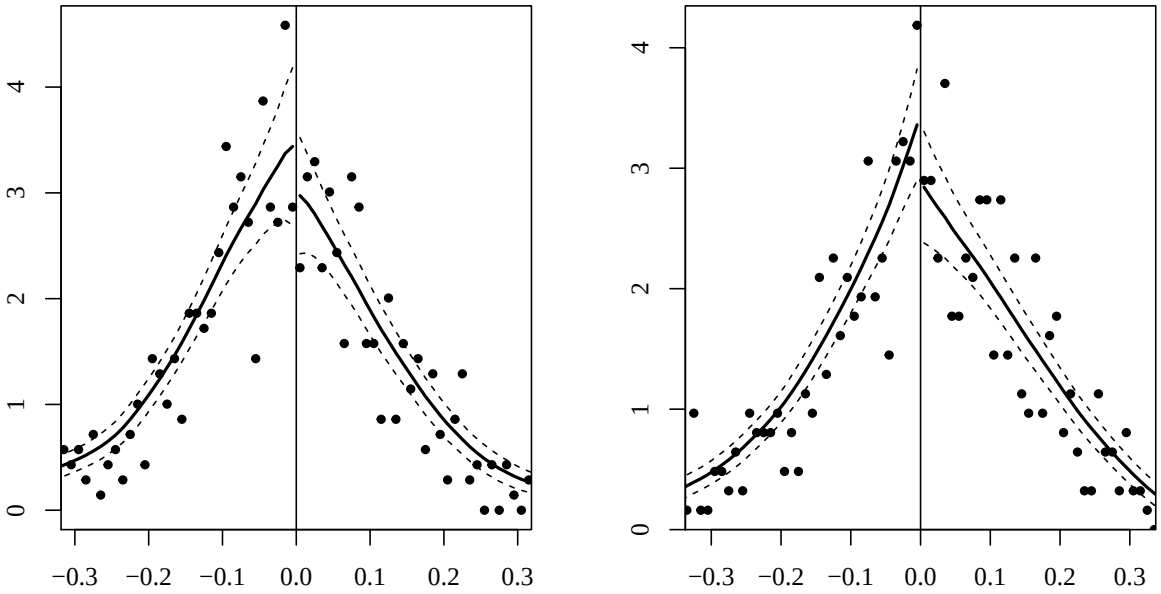
Table A4: Balance Checks for Pre-Treatment Covariates (Older Candidates)

	Mayors 70 and Over vs. Mayors Under 70			
	RD Estimate	SE	Bandwidth (h)	N
Population	−15,590.471	(19,029.447)	0.095	299
% Under 15	0.003	(0.006)	0.069	224
% 15–64	−0.004	(0.013)	0.092	291
% 65 and Over	−0.001	(0.018)	0.077	254
Daycare Centers	1.207	(5.124)	0.066	180
Elderly Care Centers	−0.031	(0.837)	0.078	225
Child Welfare	120,777.202	(161,223.258)	0.062	207
Short-Term Spending	−12,155.519	(64,898.253)	0.072	234
Long-Term Investment	4,290.211	(41,496.095)	0.068	222
Elderly Welfare	29,044.369	(69,295.927)	0.058	192
Short-Term Spending	−32,412.114	(17,090.081)	0.098	311
Long-Term Investment	9,041.836	(20,948.953)	0.068	222
Total Expenditures	−3,026,118.881	(6,510,814.253)	0.080	258

Notes: All models use local linear regression, where h represents the optimal bandwidth chosen to minimize mean square error. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

1.3 McCrary Density Tests

Figure A1: McCrary Density Tests for RDDs



(a) Candidate Under 50's Vote Margin

(b) Candidate 70 and Over's Vote Margin

Notes: Panel (a) shows the density of the candidate under 50's vote margin is continuous at the threshold. Panel (b) similarly shows that the density of the candidate 70 and over's vote margin is continuous at the threshold.

1.4 Summary Statistics

Table A5: Summary Statistics for Regression Discontinuity Analysis (Younger Candidates)

	Mean	SD	Min	Max	N
Candidate Under 50's Vote Margin	−0.016	(0.148)	−0.424	0.440	698
Δ Child Welfare Spending	0.144	(0.533)	−2.070	3.188	698
Δ Short-Term Spending	0.126	(0.556)	−4.917	2.621	698
Δ Long-Term Investment	0.220	(1.746)	−6.229	6.115	698
Δ Elderly Welfare Spending	−0.060	(0.495)	−2.588	2.262	698
Δ Short-Term Spending	−0.044	(0.417)	−2.961	3.076	698
Δ Long-Term Investment	0.023	(1.026)	−3.959	3.940	698

Notes: Mayoral elections where one candidate is under 50 years old. Variables show the change in logged per capita spending on child and elderly welfare from the year before to the year after the election.

Table A6: Summary Statistics for Regression Discontinuity Analysis (Older Candidates)

	Mean	SD	Min	Max	N
Candidate 70 and Over's Vote Margin	0.002	(0.156)	−0.449	0.500	626
Δ Child Welfare Spending	0.129	(0.62)	−2.645	3.559	626
Δ Short-Term Spending	0.107	(0.673)	−3.066	3.785	626
Δ Long-Term Investment	0.162	(1.841)	−7.211	7.679	626
Δ Elderly Welfare Spending	−0.061	(0.551)	−4.667	2.316	626
Δ Short-Term Spending	−0.033	(0.419)	−2.616	2.848	626
Δ Long-Term Investment	−0.051	(1.162)	−5.868	5.386	626

Notes: Mayoral elections where one candidate is 70 or over. Variables show the change in logged per capita spending on child and elderly welfare from the year before to the year after the election.

2 Robustness Checks

2.1 Placebo Tests

Table A7: Mandatory Expenditures Placebo Check (Younger Mayors)

	Effect of Electing a Mayor Under 50			
	RD Estimate	SE	Bandwidth (h)	N
Child Welfare				
Δ Social Assistance	0.007	(0.046)	0.077	299
Δ Personnel	0.013	(0.045)	0.060	237
Elderly Welfare				
Δ Social Assistance	0.040	(0.062)	0.119	425
Δ Personnel	−0.030	(0.086)	0.085	327
Δ Transfers	−0.008	(0.040)	0.066	257

Table A8: Mandatory Expenditures Placebo Check (Older Mayors)

	Effect of Electing a Mayor 70 and Over			
	RD Estimate	SE	Bandwidth (h)	N
Child Welfare				
Δ Social Assistance	0.060	(0.063)	0.106	306
Δ Personnel	−0.019	(0.057)	0.096	285
Elderly Welfare				
Δ Social Assistance	0.0002	(0.069)	0.108	311
Δ Personnel	0.054	(0.091)	0.115	324
Δ Transfers	0.023	(0.035)	0.067	205

Notes: All models use local linear regression, where h represents the optimal bandwidth chosen to minimize mean square error. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

2.2 Alternative Age Cutoffs for Candidates

Figure A2: Robustness to Different Age Cutoffs for Younger Candidates (Child Welfare)

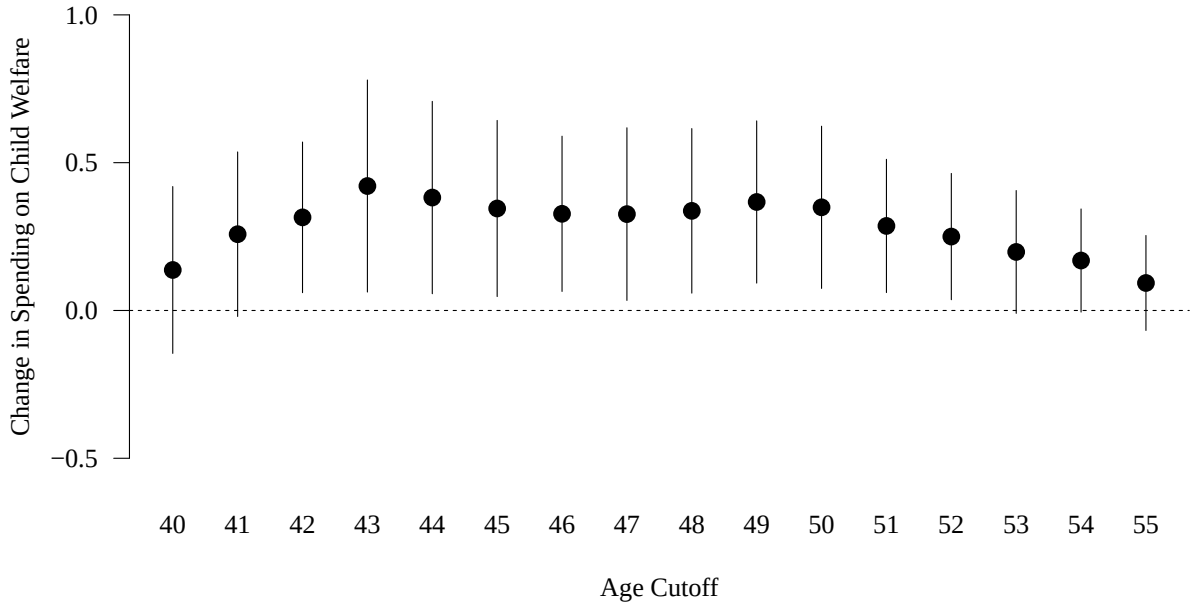
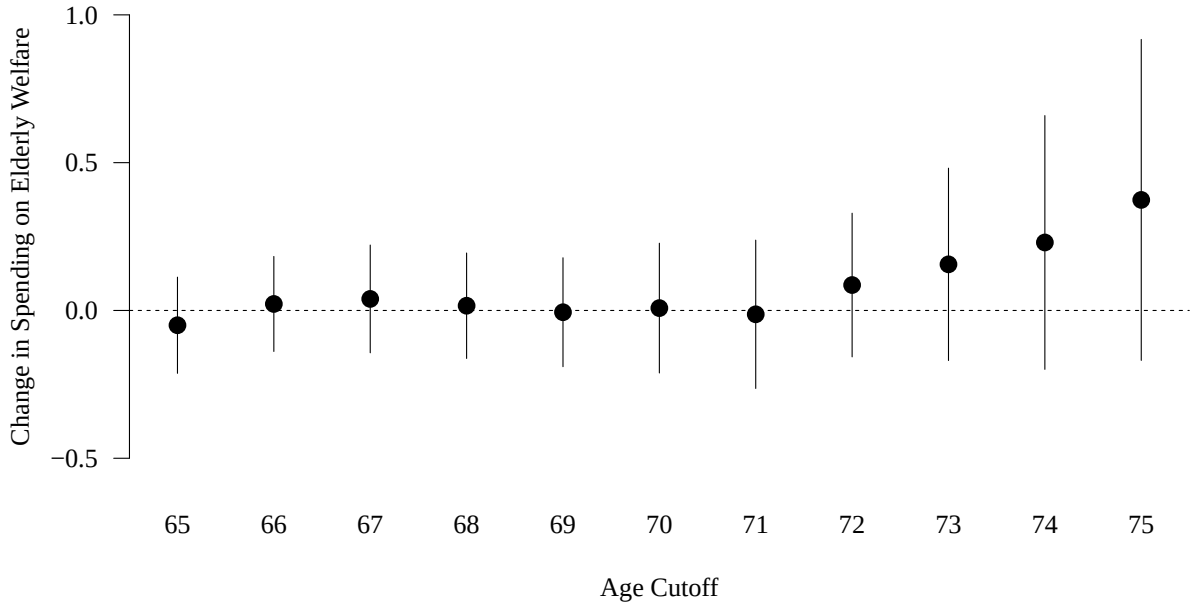


Figure A3: Robustness to Different Age Cutoffs for Older Candidates (Elderly Welfare)



Notes: All models are estimated using local linear regression, a bandwidth chosen to minimize mean square error, and standard errors clustered by municipality.

Figure A4: Robustness to Different Age Cutoffs for Younger Candidates (Long-Term Investment)

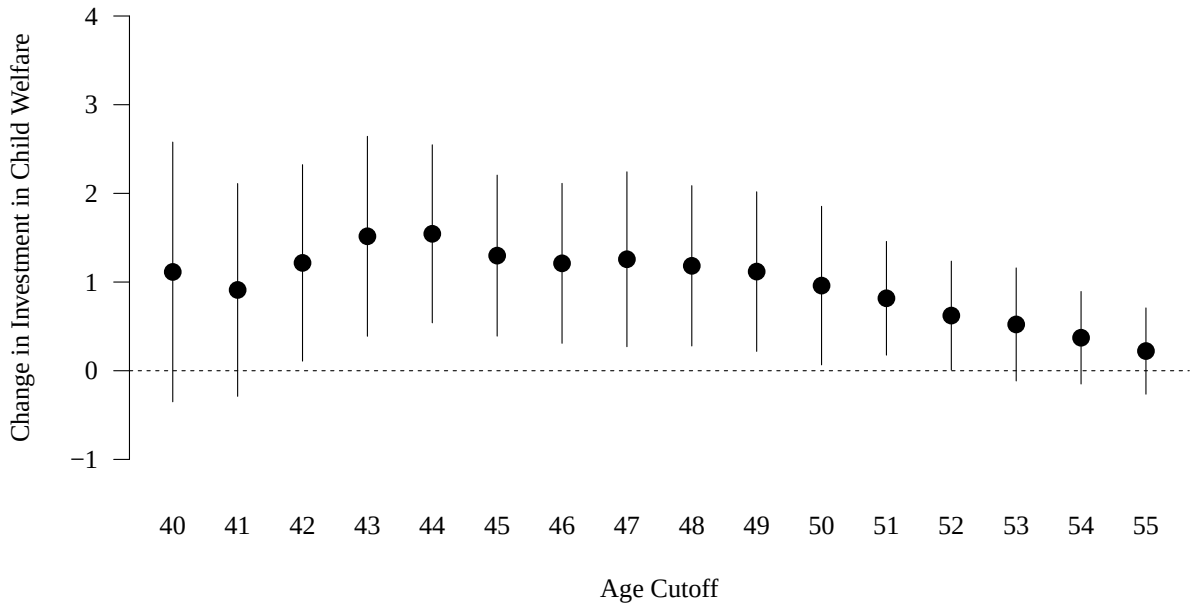
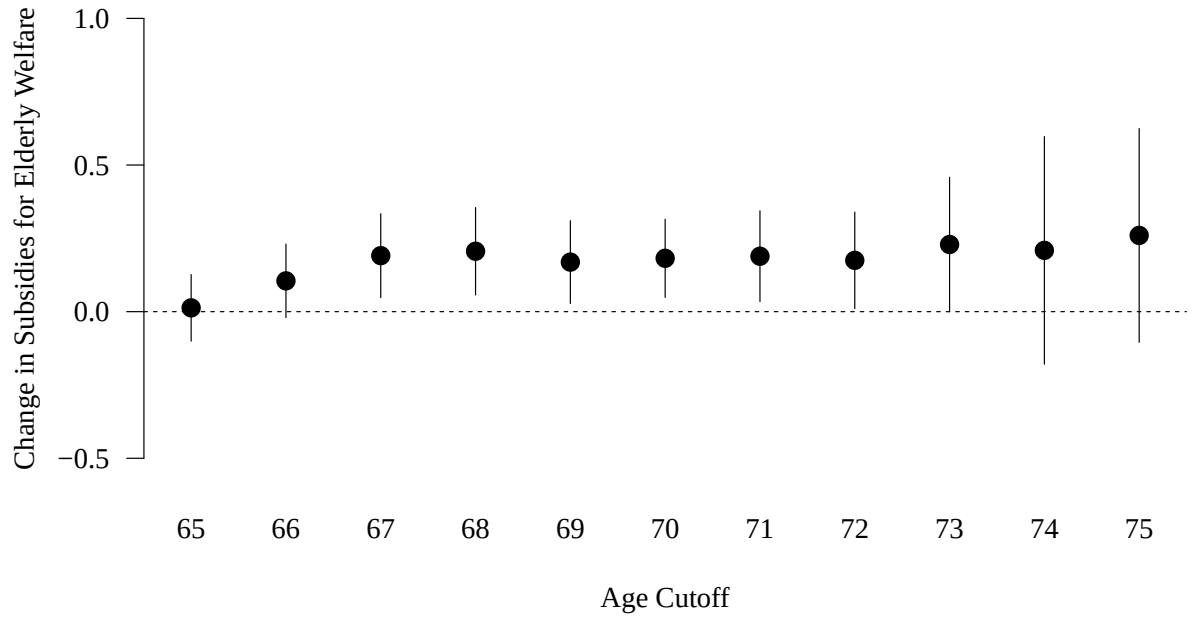


Figure A5: Robustness to Different Age Cutoffs for Older Candidates (Short-Term Spending)



Notes: All models are estimated using local linear regression, a bandwidth chosen to minimize mean square error, and standard errors clustered by municipality.

2.3 At Least 10-Year Age Gap Between Candidates

Table A9: Younger Mayors Spend More on Child Welfare (10+ Year Age Gap)

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50	.349***	.309***	.368***	.402**	.014	.049	.014	−.166
	(.129)	(.091)	(.118)	(.162)	(.099)	(.078)	(.115)	(.150)
Bandwidth	.075	.150	.200	.200	.116	.232	.200	.200
N	261	352	519	519	382	547	519	519

Table A10: Older Mayors Do Not Spend More on Elderly Welfare (10+ Year Age Gap)

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over	−.099	−.035	−.141	−.115	−.001	−.043	.046	.122
	(.132)	(.101)	(.168)	(.237)	(.110)	(.088)	(.136)	(.171)
Bandwidth	.147	.294	.200	.200	.136	.272	.200	.200
N	347	482	413	413	326	470	413	413

Notes: Sample limited to candidates who are at least 10 years apart in age. The optimal bandwidth chosen to minimize mean square error is represented by h. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

Table A11: Younger Mayors Increase Long-Term Investment in Child Welfare (10+ Year Age Gap)

	Δ Child Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50	−.150	−.110	−.186*	−.303**	.858**	.694**	.913**	1.023*
	(.098)	(.079)	(.097)	(.119)	(.427)	(.303)	(.402)	(.561)
Bandwidth	.064	.128	.200	.200	.080	.160	.200	.200
N	230	412	519	519	280	462	519	519

Table A12: Older Mayors Increase Short-Term Spending on Elderly Welfare (10+ Year Age Gap)

	Δ Elderly Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over	.197***	.137**	.240***	.292**	−.223	−.425***	−.216	.131
	(.073)	(.063)	(.087)	(.121)	(.258)	(.206)	(.285)	(.353)
Bandwidth	.124	.248	.200	.200	.107	.214	.200	.200
N	305	452	413	413	272	427	413	413

Notes: Sample limited to candidates who are at least 10 years apart in age. The optimal bandwidth chosen to minimize mean square error is represented by h. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

2.4 Mayors and Other Areas of the Municipal Budget

Table A13: Younger Mayors and the Municipal Budget

	Effect of Electing a Mayor Under 50			
	RD Estimate	SE	Bandwidth (h)	N
Expenditures				
Δ General	−0.063	(0.061)	0.107	403
Δ Welfare	0.044*	(0.022)	0.101	391
Δ Child	0.361**	(0.146)	0.078	305
Δ Elderly	0.050	(0.105)	0.092	362
Δ Social	0.027	(0.025)	0.078	306
Δ Protection	0.072	(0.053)	0.085	331
Δ Disaster	0.078	(0.102)	0.076	292
Δ Sanitation	0.036	(0.060)	0.080	309
Δ Labor	0.057	(0.106)	0.119	425
Δ Agriculture	−0.003	(0.073)	0.084	323
Δ Industry	−0.106	(0.093)	0.114	417
Δ Civil	0.047	(0.058)	0.068	264
Δ Fire	−0.010	(0.047)	0.102	392
Δ Education	0.121	(0.101)	0.073	286
Revenues				
Δ Local Allocation Tax	0.042	(0.092)	0.132	446
Δ Local Taxes	−0.017	(0.012)	0.088	340
Δ National Treasury Disbursements	0.045	(0.093)	0.081	316
Δ Prefectural Treasury Disbursements	0.088	(0.159)	0.078	300
Δ Local Bonds	0.097	(0.143)	0.071	275

Table A14: Younger Mayors and Revenues for Child Welfare

	Effect of Electing a Mayor Under 50			
	RD Estimate	SE	Bandwidth (h)	N
Δ General Resources	0.048	(0.024)	0.066	259
Δ National Treasury Disbursements	0.059	(0.106)	0.086	333
Δ Prefectural Treasury Disbursements	0.061	(0.055)	0.103	398
Δ Local Bonds	1.254***	(0.467)	0.061	243
Δ Other	−0.010	(0.128)	0.088	340

Notes: All models use local linear regression, where h represents the optimal bandwidth chosen to minimize mean square error. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

Table A15: Older Mayors and the Municipal Budget

	Effect of Electing a Mayor 70 and Over			
	RD Estimate	SE	Bandwidth (h)	N
Expenditures				
Δ General	−0.103	(0.068)	0.148	396
Δ Welfare	0.020	(0.029)	0.082	242
Δ Child	−0.092	(0.137)	0.123	346
Δ Elderly	0.009	(0.112)	0.098	291
Δ Social	−0.017	(0.028)	0.096	284
Δ Protection	0.030	(0.023)	0.058	177
Δ Disaster	0.053	(0.172)	0.099	292
Δ Sanitation	0.010	(0.064)	0.110	313
Δ Labor	0.077	(0.119)	0.122	346
Δ Agriculture	−0.070	(0.078)	0.110	310
Δ Industry	−0.009	(0.112)	0.102	299
Δ Civil	−0.020	(0.091)	0.161	414
Δ Fire	−0.003	(0.068)	0.101	295
Δ Education	0.054	(0.104)	0.104	302
Δ Debt	0.027	(0.034)	0.144	389
Revenues				
Δ Local Allocation Tax	−0.056	(0.065)	0.124	344
Δ Local Taxes	−0.033	(0.026)	0.075	226
Δ National Treasury Disbursements	−0.159	(0.139)	0.124	349
Δ Prefectural Treasury Disbursements	−0.177	(0.166)	0.094	277
Δ Local Bonds	0.238	(0.186)	0.113	316

Table A16: Older Mayors and Revenues for Elderly Welfare

	Effect of Electing a Mayor 70 and Over			
	RD Estimate	SE	Bandwidth (h)	N
Δ General Resources	0.008	(0.019)	0.142	382
Δ National Treasury Disbursements	−0.086	(0.153)	0.124	347
Δ Prefectural Treasury Disbursements	−0.0002	(0.180)	0.104	302
Δ Local Bonds	−0.114	(0.123)	0.116	325
Δ Other	0.048	(0.070)	0.156	408

Notes: All models use local linear regression, where h represents the optimal bandwidth chosen to minimize mean square error. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

3 Ruling Out Alternative Explanations

3.1 Models with Control Variables and Year Fixed Effects

Table A17: Younger Mayors Spend More on Child Welfare (With Controls)

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50	.303**	.265***	.347***	.428**	−.015	.080	.065	−.107
	(.146)	(.098)	(.132)	(.193)	(.107)	(.083)	(.110)	(.145)
Bandwidth	.077	.154	.200	.200	.087	.174	.200	.200
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y
N	299	502	568	568	335	528	568	568

Table A18: Older Mayors Do Not Spend More on Elderly Welfare (With Controls)

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over	−.178	−.063	−.149	−.139	.024	.001	.096	.142
	(.139)	(.106)	(.160)	(.218)	(.113)	(.087)	(.123)	(.152)
Bandwidth	.116	.232	.200	.200	.097	.194	.200	.200
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y
N	324	500	468	468	285	461	468	468

Notes: Controls include incumbency, gender, population demographics, and lagged expenditures. The optimal bandwidth chosen to minimize mean square error is represented by h. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

Table A19: Younger Mayors Increase Long-Term Investment in Child Welfare (With Controls)

	Δ Child Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50	−.278**	−.202**	−.278***	−.398***	.773**	.594**	.919**	1.193**
	(.098)	(.082)	(.098)	(.115)	(.366)	(.256)	(.432)	(.540)
Bandwidth	.060	.120	.200	.200	.076	.152	.200	.200
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y
N	243	443	568	568	310	506	568	568

Table A20: Older Mayors Increase Short-Term Spending on Elderly Welfare (With Controls)

	Δ Elderly Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over	.256***	.221***	.296***	.359***	−.403*	−.493***	−.166	−.034
	(.073)	(.059)	(.080)	(.110)	(.235)	(.190)	(.247)	(.298)
Bandwidth	.100	.200	.200	.200	.091	.182	.200	.200
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y	Y	Y
N	294	468	468	468	268	444	468	468

Notes: Controls include incumbency, gender, population demographics, and lagged expenditures. The optimal bandwidth chosen to minimize mean square error is represented by h. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

3.2 Compound Treatment

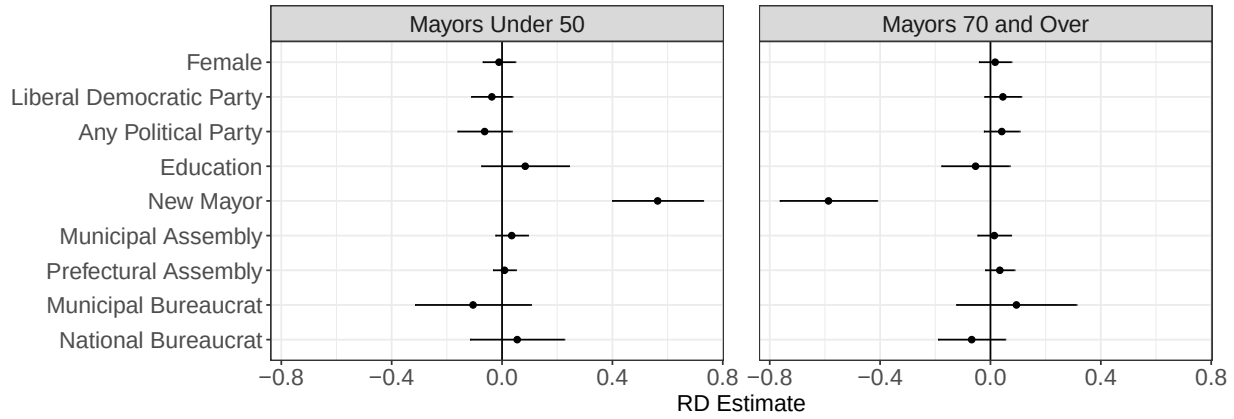
One possible alternative explanation for the main findings in the paper is that the age of mayoral candidates is obscuring some type of compound treatment. It may be that candidates of different ages share other ascriptive characteristics or background experiences in common, and it is these factors rather than age that drive their welfare policies.

Four possibilities come to mind. First, the age of mayors may be correlated with their gender. There is a large literature on how the gender of politicians affects welfare policy, with women being more likely than men to focus on childcare issues. Second, younger and older mayors may have differing levels of education. If younger mayors are more educated than older mayors, this may affect their welfare preferences and efficacy as mayors. Third, there may be a relationship between a mayor's age and their political party. While nearly every mayor in the sample officially ran for office as an independent, parties can offer their recommendations and support to candidates during election campaigns. If a mayor's age is related to their partisan support, any observable differences could be attributed more to party platforms than individual characteristics. Finally, age is perhaps most directly connected to experience. Mayors of different ages may have significantly different careers before entering office, which could affect their welfare policies.

To examine the potential influence of a compound treatment, I collected four types of biographical information on candidates using personal and municipal websites as well as newspaper coverage: gender, highest level of school completed, whether the candidate received any support from a political party, and prior experience in government. Given that I rely on information that is available online, there is some missing data. However, the regularity with which candidates list their profiles helps to avoid this problem—while there is some variation across categories, overall, I am able to collect approximately 90% of the target biographical data.

To test whether differences in backgrounds between younger and older candidates could be driving their differences in welfare policies, I again rely on RDDs to assess whether there

Figure A6: Pathways to the Mayor's Office for Younger and Older Mayors



Notes: Education is coded by the highest level of school completed: 0 (high school), 1 (college), 2 (graduate school). All models are estimated using local linear regression, a bandwidth h chosen to minimize mean square error, and standard errors clustered by municipality.

are any discontinuities in these covariates at the election threshold that suggest the presence of a compound treatment. Moreover, in the case of a potential compound effect, I also look for any evidence as to whether this characteristic can explain the observed variation between younger and older candidates in their welfare policies.

Figure A6 displays the results. While the findings suggest that there are some interesting patterns between younger and older mayors, the vast majority of individual characteristics are not statistically significant. The signs of the coefficients indicate that mayors under 50 are less likely to be women, tend to be more educated, receive less party support, and have more experience serving as a bureaucrat in national as opposed to municipal government compared to older mayors. Each of these trends is reversed for mayors 70 and over. The lack of significant differences along these dimensions in the RD tests, however, means that it is unlikely that they are behind the observed patterns in welfare expenditures.

The one category where a significant difference exists between younger and older mayors is their prior experience as mayor. Mayors under 50 are significantly more likely to be entering the mayor's office for the first time, while mayors 70 and over tend to have prior experience as mayor. Interestingly, younger mayors in the sample are not less likely to have experience in elected office than older mayors. Younger mayors are more likely to enter office with expe-

Table A21: New Mayors Do Not Spend More on Child or Elderly Welfare

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
New Mayor	.075	.043	.080	.084	.042	−.001	.038	.085
	(.081)	(.059)	(.088)	(.118)	(.063)	(.049)	(.067)	(.085)
Bandwidth	.106	.212	.200	.200	.097	.194	.200	.200
N	1,149	1,698	1,660	1,660	1,082	1,638	1,660	1,660

Notes: The optimal bandwidth chosen to minimize mean square error is represented by h. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

rience serving in the municipal assembly, prefectural assembly, or House of Representatives than older mayors, although the RD estimates are not statistically significant.[30]

Is the difference in past mayoral experience the main driver of differences between younger and older mayors in their welfare policies? I take two approaches to assess this possibility. First, as discussed in the main text, Tables A17, A18, A19, and A20 show that the main results are robust to controlling for each candidate's experience in office. Second, Table A21 estimates the RD effect of electing a new mayor on welfare expenditures. To do so, I use a similar RD approach as the main results, but instead focus on the 2,239 elections in the dataset where the top-two candidates feature an incumbent facing off against a challenger candidate. Table A21 finds that there is no significant effect of electing a newcomer on either child or elderly welfare. Although not shown in the table, I similarly find no effect of new mayors on short-term spending or long-term investment for either welfare category. As a result, it is unlikely that the effect of age is purely a proxy for past mayoral experience. Overall the results in this section do not suggest that some other factor correlated with age is the main reason for differences between younger and older mayors in their spending on child and elderly welfare.

[30]One mayor in the sample served previously in the House of Councillors and one mayor served previously as governor. These offices are omitted from Figure A6 because there are too few cases to estimate an effect.

4 Heterogeneous Effects by Median Age of Population

Table A22: Younger Mayors, Population Age, and Social Welfare Expenditures

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50 × Median Age of Population	0.023	0.018	0.131	0.171	0.002	0.009	0.078	−0.760
	(0.019)	(0.014)	(0.103)	(0.510)	(0.017)	(0.014)	(0.102)	(0.501)
Mayor Under 50	−0.753	−0.570	−5.464	−5.773	−0.070	−0.358	−3.742	33.039
	(0.924)	(0.701)	(5.096)	(25.214)	(0.824)	(0.665)	(5.035)	(24.786)
Median Age of Population	−0.011	−0.005	−0.065	−0.315	0.003	−0.0002	−0.020	0.337
	(0.013)	(0.010)	(0.059)	(0.262)	(0.011)	(0.009)	(0.058)	(0.257)
Bandwidth	.078	.156	.200	.200	.092	.184	.200	.200
N	305	503	568	568	362	542	568	568

Table A23: Older Mayors, Population Age, and Social Welfare Expenditures

DV:	Δ Child Welfare Spending				Δ Elderly Welfare Spending			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over × Median Age of Population	−0.038**	−0.027*	−0.119	−0.487	0.012	0.019	−0.011	−0.178
	(0.018)	(0.015)	(0.134)	(0.656)	(0.017)	(0.015)	(0.121)	(0.596)
Mayor 70 and Over	1.866**	1.323*	5.349	23.961	−0.617	−1.032	1.336	11.571
	(0.929)	(0.787)	(6.870)	(33.737)	(0.895)	(0.751)	(6.215)	(30.676)
Median Age of Population	0.015	0.013	0.006	−0.548	−0.011	−0.010	−0.007	−0.174
	(0.012)	(0.010)	(0.092)	(0.371)	(0.011)	(0.010)	(0.084)	(0.337)
Bandwidth	.123	.246	.200	.200	.098	.196	.200	.200
N	346	509	468	468	291	463	468	468

Notes: The optimal bandwidth chosen to minimize mean square error is represented by h. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

Table A24: Younger Mayors, Population Age, and Child Welfare Expenditures

	Δ Child Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor Under 50 × Median Age of Population	−0.006	−0.013	−0.135	−0.320	−0.012	−0.012	0.198	−0.107
	(0.019)	(0.015)	(0.107)	(0.531)	(0.063)	(0.048)	(0.348)	(1.726)
Mayor Under 50	0.048	0.426	4.646	10.006	1.553	1.266	−5.958	16.827
	(0.965)	(0.748)	(5.308)	(26.276)	(3.142)	(2.373)	(17.249)	(85.419)
Median Age of Population	0.004	0.011	0.082	0.186	0.026	0.028	−0.034	−0.510
	(0.014)	(0.010)	(0.061)	(0.273)	(0.044)	(0.033)	(0.198)	(0.886)
Bandwidth	.062	.124	.200	.200	.079	.158	.200	.200
N	248	443	568	568	307	506	568	568

Table A25: Older Mayors, Population Age, and Elderly Welfare Expenditures

	Δ Elderly Welfare Spending							
DV:	Δ Short-Term Spending				Δ Long-Term Investment			
Specification:	Local Linear		Quad.	Cubic	Local Linear		Quad.	Cubic
Bandwidth:	h	$2h$	.2	.2	h	$2h$	.2	.2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Mayor 70 and Over × Median Age of Population	0.010	0.015	−0.069	−0.094	−0.014	0.004	0.147	−0.862
	(0.013)	(0.010)	(0.085)	(0.417)	(0.039)	(0.031)	(0.250)	(1.229)
Mayor 70 and Over	−0.317	−0.633	4.326	7.050	0.526	−0.589	−5.833	53.140
	(0.643)	(0.529)	(4.348)	(21.466)	(1.979)	(1.586)	(12.832)	(63.224)
Median Age of Population	0.013	0.004	0.138**	0.235	−0.017	−0.017	−0.034	−0.122
	(0.008)	(0.007)	(0.058)	(0.236)	(0.023)	(0.020)	(0.172)	(0.695)
Bandwidth	.097	.194	.200	.200	.088	.176	.200	.200
N	285	461	468	468	263	440	468	468

Notes: The optimal bandwidth chosen to minimize mean square error is represented by h. Standard errors clustered by municipality are in parentheses. *p<.1; **p<.05; ***p<.01.

5 Interviews with Mayors and Bureaucrats

Semi-structured interviews were conducted under the University of California, San Diego's Human Research Protections Program's Protocol (Project 181763). The project was deemed exempt from full IRB review because the subjects are all public officials and the confidentiality of the interviewees will be maintained throughout the research and thereafter.

Interview subjects were selected from a complete list of current Japanese mayors and municipalities (via JMED). Selection for interviews was random, although I over-sampled local officials according to three criteria: i) municipalities with relatively younger or older mayors (under 50 or 70 and over), ii) municipalities with mayors whose last election was part of my RD analyses, and iii) municipalities within a few hours train ride from Tokyo or Osaka (for practical purposes, as this is where I was based). I contacted the offices of local officials by email to request an appointment and continued until I reached my target goal of at least 30 participants: 15 mayors and 15 municipal bureaucrats.

The interviewees were informed about the aims of the project, interview process, confidentiality, and informed consent procedures. All interviews were audio-recorded, conducted in the Japanese language, and lasted an average of 45 minutes. All participants were made aware during consent that they had the right to stop the recording or erase the recording at any time during the interview. The audio files were professionally transcribed by someone who signed a non-disclosure agreement. I then personally translated the selected quotes in this article into English.

To protect the confidentiality of my participants, all of the interview notes and recordings are kept in password-protected files on a private computer and labelled using date and unique identification numbers. There is no electronic record of interviewee names, and the key linking identification numbers to interviewee names is kept in my locked office. In the main text, I list interview dates but not locations to protect the anonymity of interviewees.