

¹ Big Spenders: Large-N Measures of Urban Regimes in Japanese Cities

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³ **Abstract**

This is the abstract. It consists of two paragraphs.

⁴ *Keywords:* urban regime, cities, policy, social welfare, social capital, Japan

⁵ **1. Introduction**

Who governs? As cities face increasing threats from climate change and climatic hazards, the coalitions and interests of power brokers who govern our cities are likely changing. Since Dahl's (1961) case study of New Haven's mayor posed the famous question, "Who Governs?", scholars have puzzled over the governance of cities: Much attention has been paid to different types of coalitions (Munoz and Henry, 1986; Stone, 1989; Stoker and Mossberger, 1994; Gilliam, 1996; Davies, 2017; Russo and Scarnato, 2018), mayors (Ramirez-Perez et al., 2008; de Benedictis-Kessner and Warshaw, 2016; Freier and Thomasius, 2016; Einstein and Glick, 2018), and interest groups (Logan and Rabrenovic, 1990; Mossberger and Stoker, 2001; Cooper et al., 2005; Portney and Berry, 2016; Anzia, 2019) that govern city politics. Urban regime scholars argue that the powerbrokers together constitute an "urban regime" (Stone, 1993), coined in Clarence Stone's (1989) study of Atlanta politics. "Urban regime" refers to elected officials and unelected powerbrokers alike, such as influential firms, NGOs, or citizens groups, who determine what policy actions a city can and cannot take (Mossberger and Stoker, 2001). As cities experience more disasters, migration, and social change in the face of storms, floods, fires, hurricanes, and other disasters, we would naturally expect these urban regimes to change. But to date, these changes have been difficult to detect systematically, with most work on urban regimes focusing on single city case studies; to date, the largest samples of cities systematically classified by urban regime has been De Socio's (2007) 24-city sample and Kilburn's (2004) 14-city sample, using Stone's (1993) 4 regime type classification.

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23 This study aims to fill that gap, introducing a framework for measuring city's propensity towards each of
24 4 common urban regime types, and evaluating the change in frequencies of urban regimes over time. I employ
25 Stone's (1993) 4-regime classification, which includes (1) caretaker, (2) developmental, (3) middle-class, and
26 (4) social welfare regimes, discussed in the literature review.

27 These categories raise natural questions in the face of climate change: In the face of crisis, have social
28 welfare regimes become more common, compared to regimes prioritizing business or middle-class interests?
29 Or, have city politics stagnated with a rise in caretaker regimes that simply maintain the status quo?
30 To answer these questions, I apply this framework to a Large-N sample of 1741 Japanese municipalities
31 over 20 years from 2000 to 2020. The Japan Statistical Bureau reports considerable annual data for each
32 municipality, allowing scholars to approximate the basic contours of cities' urban regimes by a simple,
33 publicly available proxy of each cities' governance priorities: *spending rates*. While spending cannot tell
34 us specific actors that govern, it can broadly approximate which of Stone's (1993) 4 types of regimes are
35 driving city policy. Generally speaking, a true developmental regime would spend more city funds in support
36 of business needs; similarly, a true social welfare regime would spend more in support of social welfare needs.
37 Not to replace, but to aid qualitative investigations of urban regimes, this study designs a method to make
38 Large-N comparisons among thousands of cities at a time. I posit that we can detect measurable differences
39 among cities in terms of their spending rates.

40 As a preview of my results, I find that even after accounting for population and inflation, city spending
41 rates vary substantially over time, with certain urban regimes' spending priorities becoming more common
42 with each passing year while others become less common. In particular, I document the 20-year rise of the
43 social welfare regime as the most common type of urban regime, growing from just XX% of cities in 2000
44 to YY% of cities in 2020. I also detect geographic patterns, with coastal areas investing more heavily in
45 social welfare regime priorities over time. These are exciting and heartening findings, because they indicate
46 that while national-level governance on climate has made progress with starts and stops, our cities are not
47 unilaterally gridlocked, stuck in caretaker, status quo regimes. Instead, many cities are transitioning to
48 social welfare regimes, increasing their spending on social welfare issues like food security, housing, and
49 disaster recovery above the median level nationwide.

50 **2. Literature Review**

51 *2.1 Urban Regime Theory*

52 Since Stone's (1989) examination of urban regimes in Atlanta, dozens of case studies have detailed
53 different urban regimes and governance arrangements throughout the world (Stoker and Mossberger, 1994;
54 Mossberger and Stoker, 2001; De Socio, 2007; Camou, 2014; Davies and Blanco, 2017; Rosol et al., 2017;
55 Russo and Scarnato, 2018). Over 30 years since the term's coining, urban regimes received praise (Kilburn,
56 2004; Davies and Imbroscio, 2009) and criticism (Sites, 1997; Davies, 2003; Imbroscio, 2003, 2004) for how
57 easily it can be applied to understand city politics.

58 Many regimes once thought to be long-standing have come undone and changed quickly in recent years
59 (Stone, 2015; Stone et al., 2015), making the field awash in related terms like "urban governance" (Pierre,
60 2014; da Cruz et al., 2019), governance networks (Gissendanner, 2003; Davidson et al., 2019), policy networks
61 (Bulkeley and Betsill, 2013; Hawkins et al., 2016; Wukich, 2022), public-private partnerships (Stoker, 1998;
62 Davies, 2017; Guo and Ho, 2019), and multi-tiered political orders (Stone, 2015; Weaver, 2022), or a just,
63 socially equitable city (Campbell, 1996; Fainstein, 2010). Others extended definitions of urban regimes,
64 applying versions of it to social welfare crisis in the face of mass displacement and other social crises
65 (Lambelet, 2019).

66 Nomenclature aside, these frameworks all generally aim to explain "who governs," but systematic cate-
67 gorizations of many cities at once have been rarer, usually confined to small-to-medium-N analyses (Sellers,
68 2002; Kilburn, 2004; Stone et al., 2015; Davies and Blanco, 2017). Below, I synthesize a basic typology of
69 urban regimes for measurement from the extended literature, and outline the argument for why it matters
70 'who governs' cities in the face of climate change.

71 *2.2 Redistributive Politics*

72 For the purposes of this study, urban regimes also are an effective, local level tool for thinking about
73 the broader class of politics that climate resilience initiatives exemplify: redistributive policies, a familiar,
74 long-standing, and particularly pernicious policy challenge for cities (Meltzer and Scott, 1981; Pierson, 1994;
75 Hacker, 2004; Iversen and Soskice, 2006; Mettler, 2011; Rueda and Stegmueller, 2019). National, regional,
76 and city governments each work with redistributive policies, aiming to provide en masse specific public goods
77 that are particularly difficult for residents to obtain individually, especially for vulnerable residents.

78 Previous literature dealt with electoral (Meltzer & Richards; Iversen & Soskice 2006), institutional
79 (Pierson, 1994; Hacker, 2004; Mettler, 2011), or street-level implementation (Lipsky, 1980; Hupe and Hill,

80 explanations for the success and continuity of redistributive policies. However, these studies dealt less
81 with the community resources available to cities, like partnerships with businesses (Stone, 1989; Mossberger
82 and Stoker, 2001), civil society advocacy groups (Portney and Berry, 2016), neighborhood associations
83 (Logan and Rabrenovic, 1990), and local networks (Aldrich and Meyer, 2015). These often overlooked
84 community resources can play important roles in redistributing resources to residents in need (Aldrich and
85 Kyota, 2017; Klinenberg, 2018).

86 What kinds of redistributive policies, then, were past scholars writing about? The classic example of
87 redistributive policy is social welfare support for low-income families and unemployment insurance (Pier-
88 son, 1994; Hacker, 2004), to abate the health and economic challenges of entrenched poverty (Ahammar
89 and Packham, 2020; Berkowitz and Basu, 2021). In addition to these, governments have tackled many
90 redistributive policy issues in the past. These include, for example:

- 91 • Social security policies aimed to eliminate poverty among the elderly, by redistributing the resources
92 of other age groups (Titmus 1965, Conde-Ruiz & Profeta 2007).
- 93 • Universal health care, or market solutions, both aim to eliminate loss of life and financial ruin due to
94 medical expenses, by redistributing the costs of health care issues to the entire population (Mettler,
95 2011).
- 96 • Public education sought to remedy lack of access of education and opportunity in working class families
97 by publicly funding education through the taxbase (Mettler et al., 2005).
- 98 • Highway systems (Congleton and Bennett, 1995; Zhu and Brown, 2013), electrification (Baker and
99 Phillips, 2019; Breetz et al., 2018), and public transportation (Hood, 2006) seek to connect citizens
100 and expand economic development, important to everyone, but are challenging for any one city or
101 company to pay for (Boarnet and Haughwout, 2000).

102 These redistributive programs frequently develop policy constituencies if the group benefitting from them
103 is sizable enough (Meltzer and Richard, 1981; Campbell, 2012); in some states, these programs' continuation
104 is conditional, becoming political currency for pork-barrel politics (Fukui and Fukai, 1996; Catalinac et al.,
105 2020), while in others, they become permanent fixtures in national policy (Pierson, 1994).

106 However, moving beyond these federal- or state-level examples, in fact, cities have been tackling redis-
107 tributive issues for generations (Peterson, 1981; Saiz, 1999; Tonkiss, 2020). Cities use redistributive policies
108 to remedy unequal access to employment in neighborhoods by funding public transit for all (Frankena, 1973;

¹⁰⁹ Asensio et al., 2003; Glaeser et al., 2009; Fearnley and Aarhaug, 2019; Wiesel and Liu, 2021). They may
¹¹⁰ support local businesses that might struggle to secure consistent customers by providing public venues or
¹¹¹ markets (Tangires, 1997). Cities may use public funds to free up real estate and housing available in various
¹¹² neighborhoods (Dettter and Folster, 2017), or, in the shameful history of many cities, cities can be complicit
¹¹³ in redlining and illegally restricting access to housing (Rothstein, 2017). Lately, cities' efforts at improving
¹¹⁴ health equity are especially visible, as cities conduct and manage public health campaigns, like current city
¹¹⁵ efforts to rollout testing and vaccination during the COVID-19 pandemic (Berkowitz and Basu, 2021). Some
¹¹⁶ national governments lean on cities to provide services that legitimize their state (Wallace, 2013). And in
¹¹⁷ many countries, cities play a key role in the disbursement and coordination of social welfare distribution
¹¹⁸ (Katz and Allen, 2001; Weir and King, 2021), and must secure the necessary funding for these projects
¹¹⁹ (Payson, 2022).

¹²⁰ Climate resilience initiatives, on the other hand, are a new form of redistributive policy. These initiatives
¹²¹ extend critical benefits to society, but often struggle to achieve electoral support because their benefits
¹²² are diffuse, except to the most vulnerable in society who need them. However, not all types of urban
¹²³ regimes prioritize redistributive policies like social welfare support; indeed, three out of the four regime
¹²⁴ types discussed below specifically prioritize other needs. Social welfare's relevance to climate resilience
¹²⁵ makes it especially important to identify whether social welfare-oriented regimes are increasing or declining.

¹²⁶ 2.3 Types of Urban Regimes

¹²⁷ As discussed above, Clarence Stone (1993) and later comparative studies (Kilburn, 2004; De Socio, 2007)
¹²⁸ primarily relied on 4 main types of urban regimes, including (1) caretaker, (2) developmental, (3) middle-
¹²⁹ class, and (4) social welfare regimes. Over 30 years, scholars have created numerous other types of urban
¹³⁰ regimes, sometimes conflicting or concept stretching, as some have argued (Mossberger and Stoker, 2001);
¹³¹ however, these original 4 regime types are still arguably the main types at play today. I outline in Table 1
¹³² a basic typology.

Table 1: Typology of Urban Regimes

Regime	Definition	Examples	Related	Japanese Examples
Caretaker	maintains status quo, traditional municipal service provision	New Orleans (Whelan et al. 1994)	Maintenance/Status Quo (Stone 1989) Bystander (Portz 1990) Austerity (Davies & Blanco 2017)	-
Developmental	promotes economic growth while preventing economic decline	Atlanta (Stone 1989)	Entrepreneurial Regimes (Euchner 1993) Public-Private Partnerships (Davies 2017) Player (Portz 1990) Castle Towns (Funabashi 2006; Hill & Fujita 1993)	Tokyo (Saito 2003; Tsukamoto 2012; Sorensen et al. 2010) Kitakyushu (Yeum 2002) Minamata (Funabashi 2006) Kobe Post-1995 (Edgington 2010)
Middle-Class	promotes egalitarian policies in education, health, environment, and city planning	Santa Cruz (Gendron & Domhoff 2018)	Progressive (Stone 1989) 'Anti-Regime' (DeLeon 1992)	Mitaka (Takao 2006) Kyoto (Sugiyama & Takeuchi 2008)
Social Welfare	improves conditions for working class, expands social safety net	Early Toronto (Mahon 2007)	Opportunist (Stone 1989) Activist (Clark 2001) Stewardship Regimes (Nissen 1995)	Iida (Fraser et al. 2020) Yokohama (Hayashi 2013) Mikura Ward, Kobe (Yasui 2007)

133 The first type is (1) *caretaker regimes*. In these cities, the incumbent regime seeks to maintain a city's
134 status quo (Turner, 1992; Whelan et al., 1994). The municipality provides basic services, but avoids expand-
135 ing. Past studies labeled the city of New Orleans, pre-Katrina, as a good example. Other terms capture
136 the same approximate meaning, including maintenance regimes (Stone, 1989) or bystander regimes (Portz,
137 1990), which refer to regimes that played no major role when industrial firms closed shop in the US rustbelt.
138 Relatedly, some cities have also organized under austerity regimes, focused on cutting expenses, rather than
139 expanding policies; this subtype lies somewhere between caretaker regimes and developmental regimes, as
140 they usually cut expenditures on social welfare or progressive causes, but not necessarily economic interests
141 (Davies and Blanco, 2017). To the author's knowledge, few studies have tracked caretaker regimes in Japan;
142 this study aims to help remedy that.

143 The second type is (2) *developmental regimes*. These regimes prioritize economic development and
144 business interests, while preventing economic decline (Stone, 1989; Austrian and Rosentraub, 2002; De Socio,
145 2007). A robust literature has covered these, starting with archetypes like Stone's (1989) Atlanta. Scholars
146 have proposed several subtypes over the years that group well under developmental regimes, including
147 entrepreneurial regimes, describing regimes' enticement with sports industries (Euchner, 1993), tourism-
148 focused regimes (Russo and Scarnato, 2018), public private partnerships (Davies, 2017), and player cities,
149 describing those which advocate intensely to bring in or keep industry (Portz, 1990). A related concept in
150 the Japanese literature is "castle towns," referring to cities where the entire city government and economy is
151 closely structured around one industry (Hill and Fujita, 1993). Famous examples include Minamata, which
152 suffered considerable environmental pollution due to the Chisso corporation in the 1950s (Funabashi, 2006);
153 more recent examples of castle towns are nuclear power plant host communities (Aldrich and Fraser, 2017).

154 Developmental regimes and related types have received considerable attention in Japan, with studies
155 emphasizing the neoliberal, developmental priorities of property development in post-Bubble Tokyo (Saito,
156 2003; Tsukamoto, 2012; Sorensen et al., 2010), developmental priorities in reconstruction plans from the Kobe
157 Earthquake (Edgington, 2010), and early efforts to reduce air pollution in industrial cities like Kitakyushu
158 (Yeum, 2002).

159 The third common type is (3) *middle-class regimes* (a.k.a. progressive regimes[^][Usually called progressive
160 regimes, I term these 'middle-class' regimes to avoid confusion with the next type, which support progressive,
161 redistributive policies.]). These regimes support middle-class, progressive interests like environmentalism,
162 health care, education, and quality city planning (DeLeon, 1992; Gendron and Domhoff, 2018; Rosdil, 2016).
163 Past examples include politically left-wing city politics in Santa Cruz, San Francisco, and Seattle, among

¹⁶⁴ others (Gendron and Domhoff, 2018). These regimes focus on a specific type of progressivism, namely
¹⁶⁵ egalitarian ideals, such as environmental conservation and sustainability (Rosol et al., 2017), but these
¹⁶⁶ regimes tend to support middle-class interests, rather than working class interests (Kilburn, 2004).

¹⁶⁷ Famous Japanese examples include Mitaka City, a Tokyo suburb known for progressive environmental
¹⁶⁸ policy, quality of life, and citizen engagement (Takao, 2006). Similarly, large cities like Kyoto (Sugiyama
¹⁶⁹ and Takeuchi) and smaller cities like Iida in Nagano Prefecture (Fraser et al., 2020) have both received
¹⁷⁰ attention for their cities' emphasis and leadership on environmentalism.

¹⁷¹ Finally, the fourth type refers to (4) *social welfare regimes* (a.k.a. opportunist regimes ¹⁷²/*Sometimes called
¹⁷³ ‘opportunist’ regimes, referring to aims to expand the social safety net, this study re-terms this category
¹⁷⁴ ‘social welfare regimes’, to more respectfully characterize these policies.)*. These regimes prioritize social
¹⁷⁵ welfare support for the working class and related redistributive policies, such as unemployment insurance,
¹⁷⁶ public housing, and financial support for families in need, eg. after crisis (Stone, 1993; Thompson III,
¹⁷⁷ 2005; Camou, 2014; Lai and Chui, 2014; Arbaci, 2019). Related monikers include ‘opportunist regimes,’ as in
¹⁷⁸ those aiming to expand the social safety net (Stone, 1989), activist regimes (Clark), which use neighborhood
¹⁷⁹ coalitions and activist groups to push for social equity (Thompson III, 2005), labor coalitions (Camou, 2014),
¹⁸⁰ and stewardship regimes (Nissen, 1995), which negotiate with businesses for fair treatment of workers. While
¹⁸¹ the shape of social welfare policy varies by city and country, Canadian and UK cities are particularly known
¹⁸² for efforts to expand social safety nets (Saraceno, 2002), like Toronto’s early work expanding childcare
¹⁸³ (Mahon, 2007), although Toronto has shifted over time to a developmental/progressive regime. Japanese
¹⁸⁴ urban studies research has highlighted Yokohama for its particularly expansive support for the homeless
¹⁸⁵ (Hayashi, 2013), as well as specific city wards like the working class neighborhood of Mikura in Kobe for
¹⁸⁶ its robust advocacy for social equity in the reconstruction process after the 1995 Kobe Earthquake (Yasui,
2007).

¹⁸⁷ 2.4 Correlates of Urban Regimes

¹⁸⁸ Given how useful social welfare regimes can be in the era of climate change, what kinds of cities develop
¹⁸⁹ social welfare regimes, and which do not? While little literature directly tackles this question, past studies
¹⁹⁰ summarized below suggest several likely correlates.

¹⁹¹ 2.4.1 Demographic and Financial Correlates of Urban Regimes

¹⁹² First, we expect some cities are predisposed towards certain types of urban regimes. Highly populated
¹⁹³ cities, cities with higher income per capita, cities with more revenue per capita, and cities with better

¹⁹⁴ balanced budgets have more funds and other resources to spend on advancing a social welfare regime (or a
¹⁹⁵ developmental or middle-class regime, for that matter). But cities who receive a larger share of their annual
¹⁹⁶ budget from the national or prefectural government may face more pressure to conform with national or
¹⁹⁷ prefectural objectives, which often come in the shape of economic development policy. Such cities might
¹⁹⁸ invest *less* in social welfare.

¹⁹⁹ *2.4.2 Partisanship and Urban Regimes*

²⁰⁰ Second, party interests may push some cities towards or against social welfare spending. The Liberal
²⁰¹ Democratic Party is, despite its name, Japan's long-time conservative party, and traditionally promotes
²⁰² business interests and economic development. Past studies explains that when the LDP accepts social welfare
²⁰³ policies, it usually does so to counter any competitive advantage that policy gives left-leaning opposition
²⁰⁴ parties prior to elections, as was the case in universal health care legislation. Cities where the Liberal
²⁰⁵ Democratic Party performed well in recently elections thus likely have little incentive to adopt social welfare
²⁰⁶ policies; their local officials and prefectural party machine are more likely to push for developmental policies.

²⁰⁷ *2.4.3 Social Capital and Urban Regimes*

²⁰⁸ However, cities with greater collective action potential might be more likely to adopt social welfare
²⁰⁹ regimes, if local residents have strong social capital. Past literature highlights that social capital, the social
²¹⁰ ties that bind residents ([Putnam, 2000](#); [Woolcock, 2010](#)), come in three different forms with distinct impacts
²¹¹ on public participation and policymaking: bonding, bridging, and linking social capital ([Aldrich and Meyer,](#)
²¹² [2015](#)).

²¹³ *Bonding Social Capital.* Bonding social capital refers to strong in-group ties between members of the same
²¹⁴ social strata (eg. race, ethnicity, age, gender, income) ([McPherson et al., 2001](#); [Mouw, 2006](#)). We might
²¹⁵ expect bonding social ties to help residents petition for more middle class interests, which benefit a broad
²¹⁶ swath of residents, but fail to organize broad, cross-community coalitions to support social welfare ([Tsai,](#)
²¹⁷ [2007](#); [Cox and Perry, 2011](#); [Alcorta et al., 2020](#)).

²¹⁸ *Bridging Social Capital.* In contrast, bridging social capital refers to strong inter-group ties connecting mem-
²¹⁹ bers of different social strata (eg. members of different racial, ethnic, age, gender, or income backgrounds)
²²⁰ ([Putnam, 2000](#); [Aldrich, 2019](#)). A vast literature suggests that stronger bridging social ties help residents
²²¹ organize to improve access to public goods for the *entire* community, because they build strong inter-group
²²² trust and reciprocity that encourages folks to mobilize, vote, and participate in civil society.

²²³ *Linking Social Capital.* Finally, linking social capital refers to vertical ties connecting residents to local
²²⁴ officials (Woolcock, 2010; Aldrich, 2019). We might expect that cities with stronger linking social capital
²²⁵ are less likely to be caretaker regimes, but could result in greater social welfare, developmental, or middle
²²⁶ class regimes, depending on residents' interests. In addition to the concepts discussed above, cities with
²²⁷ higher levels of education and lower levels of population turnover also tend to build stronger social ties. To
²²⁸ date however, despite the strong likelihood of a connection between social capital and urban regimes, no
²²⁹ study to the author's knowledge has yet investigated these two concepts together.

²³⁰ *2.5 Timing and Path Dependence*

²³¹ Finally, timing matters. First, social welfare regimes (and spending in general) is notoriously path
²³² dependent, where once governments institutionalize certain spending programs, they tend to stick around.
²³³ Second, regimes may shift according to the social constraints of the time. After the 2011 triple disaster,
²³⁴ a surge of disaster recovery spending occurred in the Tohoku region; we might expect this disaster pushed
²³⁵ some cities towards social welfare regimes in order to provide better for vulnerable families and elders in the
²³⁶ aftermath. Conversely, some cities rebuild primarily according to central government instructions, spending
²³⁷ primarily on infrastructure while neglecting community spending; as a result, the impact of the disaster on
²³⁸ social welfare regime evolution is currently unclear.

²³⁹ Similarly, local and national rhetoric on spending has changed over time; concepts like the 1980s' Wash-
²⁴⁰ ington Consensus, the 1992 economic bubble burst in Japan, the 1995 Kobe Earthquake, the 2008 Great
²⁴¹ Recession, and the 2011 disaster each greatly shifted the conversation on spending; some governments post-
²⁴² recession advocated austerity, while the 2011 disaster highlighted great need and vulnerability of residents
²⁴³ to crisis, both in Tohoku and elsewhere, leading to the 2015 Sendai Framework, which advocated a need for
²⁴⁴ investment in local communities to 'build back better' after crisis so as not to leave communities vulnerable
²⁴⁵ again. Each of these influences could propel or hinder the growth of social welfare regimes, begging the
²⁴⁶ question, which direction have Japanese cities moved over time?

²⁴⁷ *2.6 Hypotheses*

²⁴⁸ In summary, these four types capture a wide range of urban regime literature, each with distinct priorities
²⁴⁹ that would lead to *more* or *less* spending in specific areas. I expect that these urban regimes are not evenly
²⁵⁰ distributed throughout the country, but rather that some types of urban regimes are increasing over time. I
²⁵¹ hypothesize that social welfare regimes, compared to other types, have increased over the last two decades

²⁵² of climatic hazards, opening up new communities to new changes in the social safety net. Below, I outline
²⁵³ set of methods to measure each cities' propensity towards these four regimes.

²⁵⁴ **3. Data**

²⁵⁵ This study aims to describe and characterize the urban regimes of a large-N sample of cities over time, to
²⁵⁶ determine how and under what conditions these cities' regimes have changed. I examine the case of Japan,
²⁵⁷ tracking the full universe of municipalities (cities, towns, villages, and Tokyo's special wards) that govern
²⁵⁸ their own budgetary and administrative affairs, each capable of producing an urban regime that shapes local
²⁵⁹ governance and spending.

²⁶⁰ *3.1 Why Japan?*

²⁶¹ While the urban regime framework was originally developed in a US context (Stone, 1989), it has been
²⁶² applied widely throughout the world, with strong followings in the US (Kilburn, 2004), UK (Bassett, 1996;
²⁶³ Davies, 2017), Europe (Stoker and Mossberger, 1994; Arbaci, 2019), Japan (Child Hill and Fujita, 2000;
²⁶⁴ Saito, 2003; Sorensen et al., 2010; Tsukamoto, 2012), China, Hong Kong (Lai and Chui, 2014), South Korea
²⁶⁵ (Shin et al., 2015), and comparative settings (Mossberger and Stoker, 2001; Ramirez-Perez et al., 2008).
²⁶⁶ Japan is a useful test case as an industrialized democracy and the 3rd largest economy in the world, a
²⁶⁷ useful comparison case for many Global North states like the US, UK, France, Germany, South Korea, and
²⁶⁸ Taiwan, among others. Facing frequent floods, typhoons, and earthquakes compared to peer economies,
²⁶⁹ Japan's experience gives us a glimpse of what kind of urban regime transition we might expect in future
²⁷⁰ years due to climate change in the cities of similar industrialized democracies.

²⁷¹ *3.2 Unit of Observation*

²⁷² I track the full universe of 1739 municipalities for which spending data was available between 2000 and
²⁷³ 2018, over 19 years. The final sample narrows into 1738 unique municipalities, which varied over time due
²⁷⁴ to mergers and new divisions, from 1428 cities in 2000 to 1727 cities in 2018, dubbed 'cities' below, totaling
²⁷⁵ 31,493 city-year observations. To ensure a comparable sample, this omits 12 outlier cities at times.²

²I omitted 11 cities in the Fukushima Exclusion Zone from 2011 onwards, plus Yubari, Hokkaido for the full period, totaling 12 cities (n = 107 city-years). I omit these because these extremely depopulated cities face dire social and economic conditions quite different from the rest of Japan.

276 3.3 Urban Regime Indices

277 To represent urban regimes, this study developed new indices. Clarence Stone and likeminded scholars
278 sorted cities into four types of urban regimes, including caretaker (status quo), developmental (pro-business),
279 middle-class (egalitarian), and social-welfare (working-class) governing coalitions (Stone, 1989; Stoker and
280 Mossberger, 1994; Mossberger and Stoker, 2001; Kilburn, 2004; De Socio, 2007). Over time, Stone himself
281 advocated for attention to change over time in urban regimes, arguing that “there is little reason to expect a
282 stable and cohesive governing coalition in today’s cities” (Stone et al., 2015). For this reason, one might now
283 expect considerable variation in urban regimes among cities, especially over time. Though the inner-workings
284 of governing coalitions in Japan’s municipalities are black boxes, unobservable without detailed qualitative
285 study of each, these coalitions can be generally sorted based on *how strongly each city’s spending reflects the*
286 *interests of a specific urban regime*. This matches Stone’s original conception of urban regimes, about which
287 he wrote: “If a governing coalition is to be viable, it must be able to mobilize resources commensurate with
288 its main policy agenda” (Stone, 1993).

289 To represent these 4 urban regimes, this study presents 3 new indices, based on 15 spending indicators,
290 depicting how much a city prioritizes spending types expected in a **social welfare** (SW), **middle class**
291 (MC), or **developmental** (D) regime respectively, where low scores among all 3 depicting a **caretaker**
292 regime (C). Each regime index reflects the average (mean) of cities logged spending rates on priorities that
293 regime typically champions (described further below). I trimmed all logged rates to the 99% most common
294 values to protect against outlier bias, clipping any city-years above the 99.5th percentile or below the 0.5th
295 percentile at those limits.³

296 3.3.1 Indicators

297 Annual spending indicators are logged municipal spending rates, measured in 1000s of yen per capita to
298 account for population, log-transformed to account for right-skew common in rates, and inflation-adjusted
299 to the year 2020. I transformed each indicator into a mean-centered z-scores, to account for different ranges,
300 and averaged related indicators together into the 3 indices. To demonstrate their internal validity below, I
301 introduce each indicator and report their correlation with their respective index below, using the Pearson’s r
302 correlation coefficient (where -1 shows negative trends, +1 shows positive trends, and 0 shows neither). Each
303 indicator captures a different aspect of that urban regime; no regime must invest equally in, for example,

³I use the mean, rather than median, to give each spending priority equal weight; the mean better captures variation particularly when one of these priorities (eg. social assistance vs. unemployment) exceeds or lags behind others.

304 each social welfare indicator to count as such a social welfare regime, so maximal correlations are unlikely,
305 but positive correlations are a good sign of internal validity.

306 Each indicator shows positive correlations with their overall index. This is a great sign, indicating that
307 an increase in any of the three indices does generally correspond to a strong increase in its indicators.
308 Additionally, spending rates produced better internal consistency than percentages of the budget, likely
309 because each city's share of spending on different issues varies depending on external factors.

310 • The **Social Welfare regime** index combines 6 types of spending on working-class interests, which
311 are highly correlated with the final index, according to their Pearson's r correlation coefficient. These
312 including (1) social welfare assistance for low income residents ($r = 0.65$), (2) assistance for children
313 (0.45), (3) assistance for elders (0.66), (4) labor expenditures including unemployment relief and voca-
314 tional training (0.3), (5) emergency services like fire departments (0.58), and (6) public housing (0.32).
315 Correlations vary somewhat, since some social welfare regimes focus more on unemployment while
316 others focus more on social welfare for elders and children, for example, and so our average takes this
317 variation into account.

318 • The **Middle Class regime** index combines spending on 5 middle-class interests, which are highly
319 correlated with the final index. These include (7) education ($r = 0.5$), (8) social education (includ-
320 ing lifelong learning and cultural facilities) (0.42), (9) health care and public health services (0.59),
321 environmental interests like (10) waste and recycling (0.42), and (11) city planning (0.17). (Planning
322 has a weaker, but clearly positive linear relationship with middle class regimes, and it is an important
323 aspect of cities focused on quality of life.)

324 • The **Developmental regime** index combines spending rates on 4 economic development interests,
325 which correlate well with the final index. These include (12) agriculture, forestry, and fisheries ($r =$
326 0.64), (13) commerce and manufacturing (0.49), large infrastructure like (14) roads and bridges (0.69),
327 as well as (15) ordinary construction works (0.62).

328 Each index is mean-centered, where 0 represents the average level of spending nationwide over time on a
329 certain regime's issue areas, and higher/lower values denote more/less spending rates on that regime's issue
330 areas, on average. -1 represents one standard deviation lower spending than average, and +1 represents one
331 standard deviation higher than average. Their distributions are highlighted in Figure A1.

332 *3.3.2 Classifying Cities by Regime Type*

Table 2: Regime Classifications

Name	Code	Index Scores ¹			Percentage of Cases by Threshold ²	
		Social Welfare	Middle Class	Developmental	Median	Mean
Classic Regimes						
Social Welfare	SW	High	Low	Low	8.1	8.5
Middle Class	MC	Low	High	Low	7.8	6.4
Developmental	D	Low	High	Low	5.9	6.9
Caretaker	C	Low	Low	Low	28.6	33.4
Hybrid Regimes						
Social Welfare Hybrid (1)	SW-MC	High	High	Low	5.6	4.4
Social Welfare Hybrid (2)	SW-D	High	Low	Low	7.4	8.3
Hybrid Middle Class Hybrid	SW-MC-D MC-D	High Low	High High	High High	29.0 7.7	25.3 6.9

¹ City-years classified based on three regime scores being above (High) or below (Low) threshold.

² % of cases, when using median as threshold; robustness check uses mean as threshold.

333 Further, we use these indices to empirically classify cities into urban regime types, using our 3 indices' 334 medians to demarcate 8 classifications, to represent the general range of regimes a city can occupy, including 335 our 4 primary urban regimes and 4 hybrids. Table 2 lists each combination. If just 1 index ranked above 336 the median, I classified a city as that type of regime, including Social Welfare (SW = 8.1%), Middle Class 337 (MC = 7.8%), and Developmental regimes (D = 5.9%). If all 3 indices ranked below the median, I classified 338 that as a Caretaker regime (C = 28.6%). **Hybrids** describe cities prioritizes interests of 2 or more regimes. 339 If 2 indices ranked above the median, I classified that as either a Social Welfare Hybrid Regime (SW-MC 340 = 5.6%, SW-D = 7.4%) or a Middle Class Hybrid Regime (MC-D = 7.7%). 3 indices above the median 341 translate to a full hybrid regime (SW-MC-D = 29%). The more common hybrids tend to involve Social 342 Welfare traits (and follow the same increase over time as social welfare regimes). (I repeated this process 343 using the mean as our cutpoint, showing similar proportions of cases in each group.)

344 3.4 Change over Time

345 But are these urban regimes fixed, or fluid? Do cities transition between regime types to accomplish their 346 aims? I examined this with continuous and categorical analyses below. First, in Figure 1, I examined the 347 changing median score (**black** line) over time for my 3 urban regime indices. Surrounding the median, red 348 bands show the most common 50% of scores, represented by the interquartile range (25-75th percentiles), 349 and grey bands show the most commonly occurring 90% scores among cities (5-95% percentiles). This chart 350 shows that while cities' status as developmental and middle class regimes (based on their spending) did not

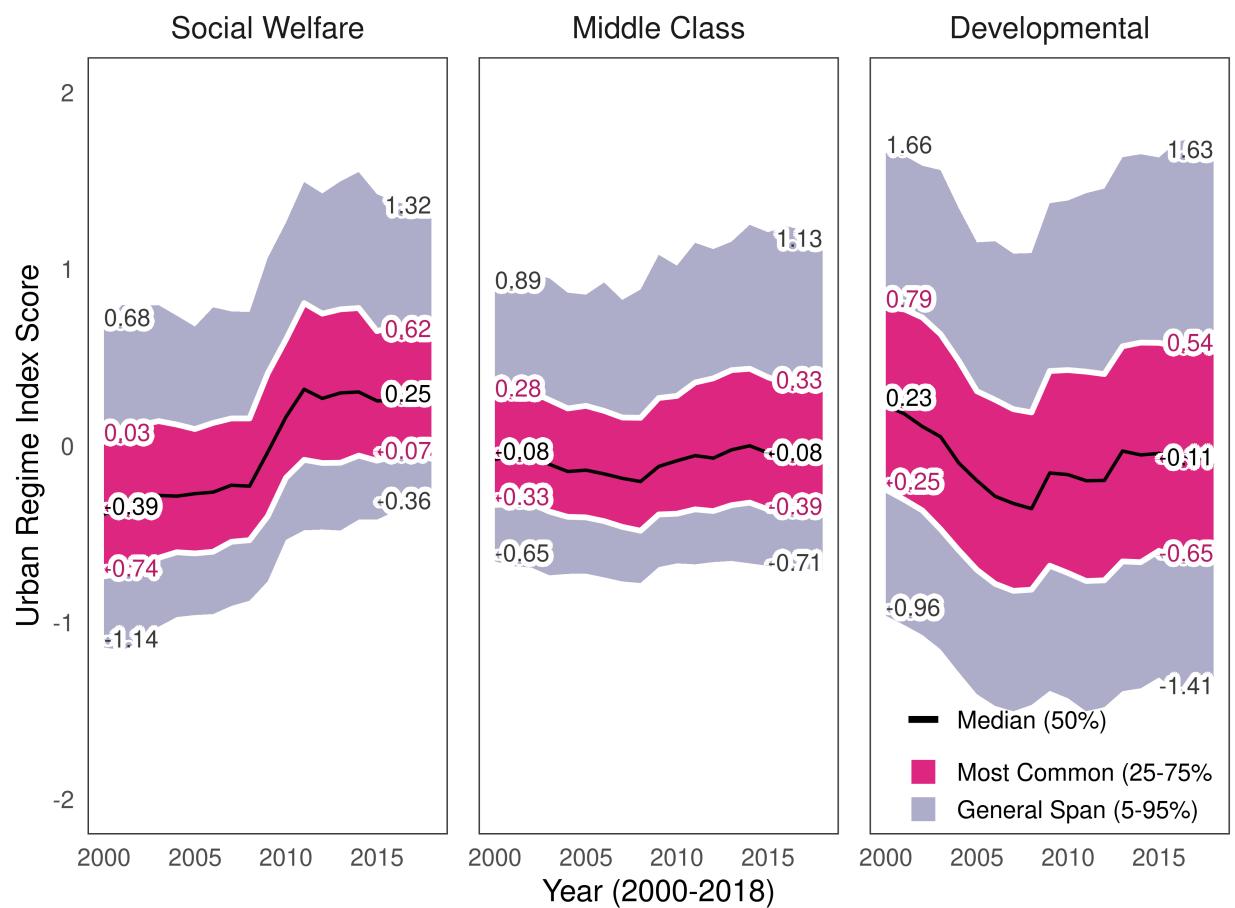


Figure 1: Indices Change Over Time

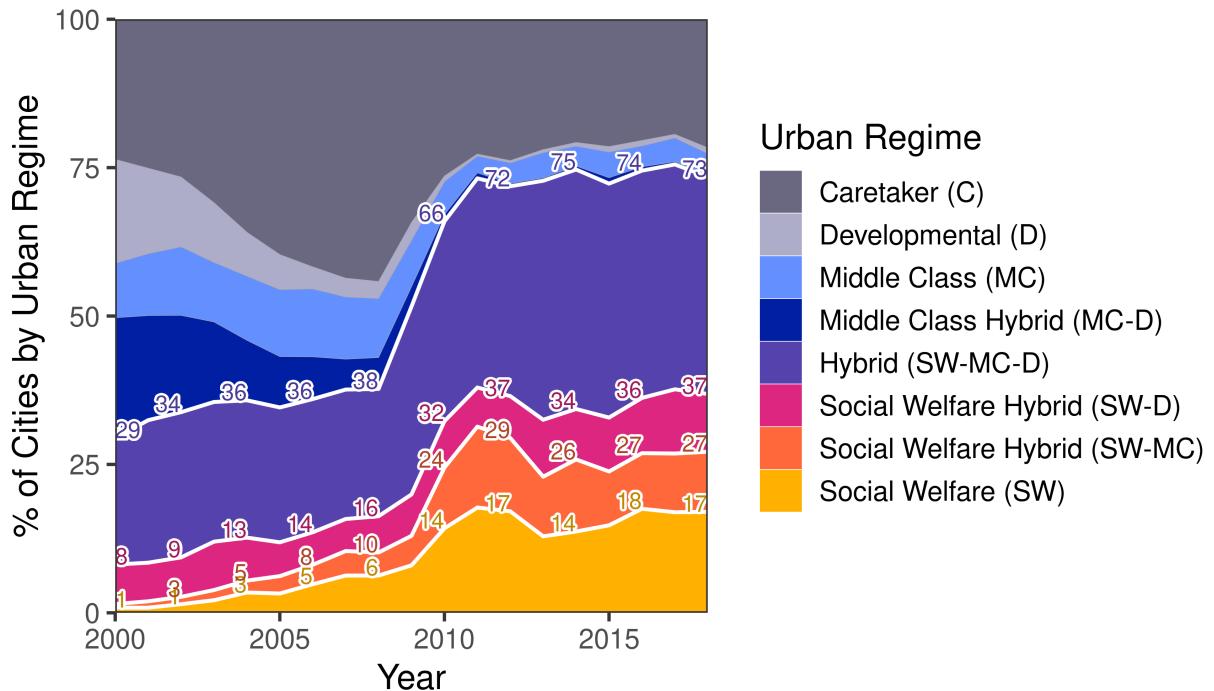


Figure 2: Change in Regime Types by Percentage over Time

351 change especially, the share of cities spending more on social welfare issues sharply increased in the years
 352 leading up to and after 2011.

353 Second, to contextualize this, I measured the changing annual percentages of regimes based on their
 354 urban regime classifications from Table 2; I stack the 4 types of regimes where social welfare regime indices
 355 were above the median. This highlights the sizable increase in social welfare spending. Social welfare regimes
 356 (yellow) increased from >1% in 2000 to 13% in 2018, with a max of 14% in 2012. Including social welfare
 357 hybrid regimes that also focused on middle class (orange) or developmental spending (red), these increased
 358 from 5% in 2000 to 32% in 2018, surging 18% between 2008 to 2012 to 31% in 2012. When we include hybrid
 359 regimes that spent above the median on social welfare, middle class, and developmental interests (purple),
 360 the total share spikes considerably. This combined total represents all cities that spent above the median
 361 on social welfare, regardless of their other regime scores. Starting at 23% in 2000, the share of cities that
 362 spent above the median on social welfare share increased considerably between 2008 and 2012, jumping 33%
 363 from 35% to 68%, ending in 2018 at 70% of the whole sample. During the same period, the frequency of
 364 solely middle class or developmental regimes declined greatly, from above 10% each to below 5% each, while
 365 caretaker regimes surged, then declined, starting and ending at about a quarter of cities.

366 The spread of social welfare regimes is especially evident in Figure 3, which uses an Azimuthal Equidistant

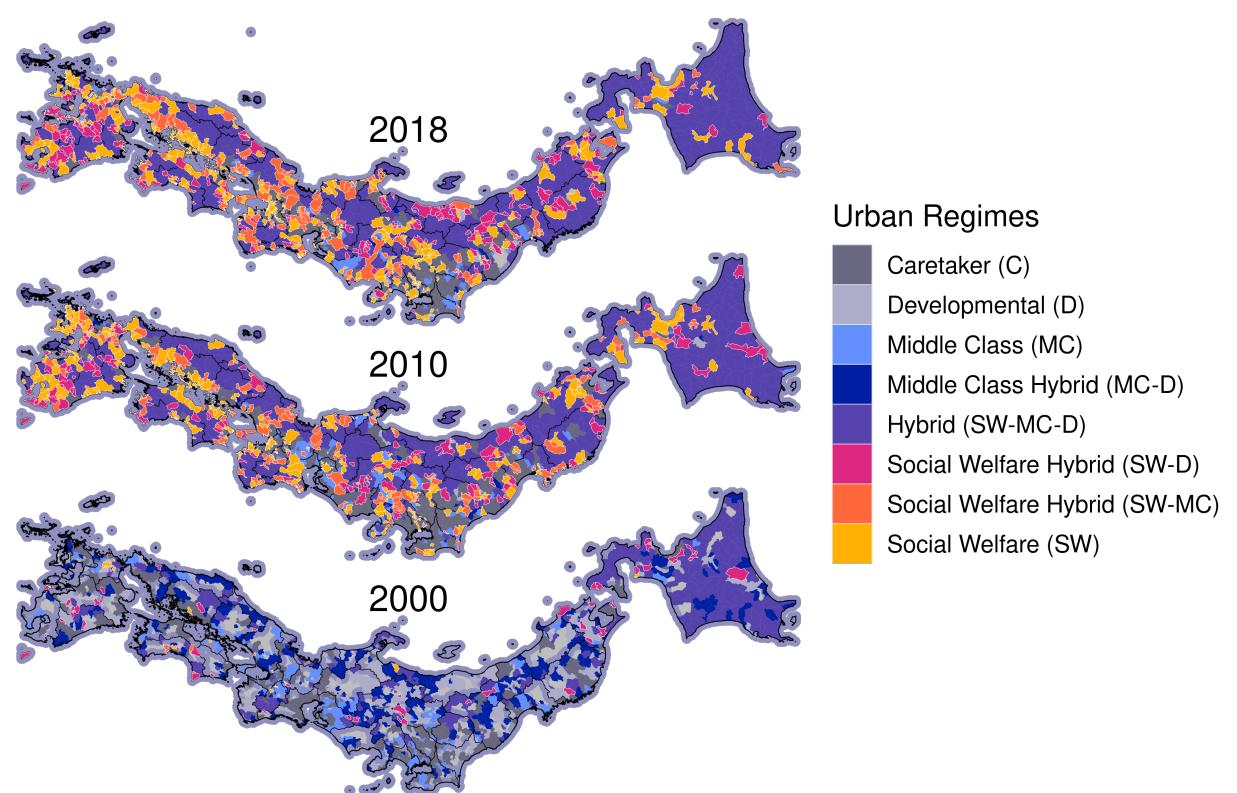


Figure 3: The Spread of Social Welfare Regimes Over Time

367 Projection, titled for readability (North is on the right), to map *when* and *where* these social welfare-inclined
368 regimes emerged. East, northeast, and southeast Japan transitioned from caretaker regimes in 2000 to many
369 new social welfare-related regimes by 2018. While the 2011 tsunami likely impacted this, the change appears
370 to have preceded the 2011 tsunami, with many social welfare regimes emerging already by 2010. By 2018, a
371 full 20.9% of cities in Kyushu had become pure Social Welfare regimes, with similar results in Shikoku (18.9%)
372 and Chugoku (15.9%). After including social welfare hybrids (SW-M & SW-D), social welfare-related regimes
373 are even more common in Shikoku (47.4%), Kyushu (46.5%), Kansai (39.6%), and Chugoku (36.4%). And
374 after including pure hybrids (SW-MC-D), this covers almost all cities in some regions, especially frequent
375 in Hokkaido (97.8% of cities), Shikoku (91.6%), Kyushu (87.2%), Chugoku (84.2%), and Tohoku (84.2%).
376 These tallies represent a major change from 2000, when pure social welfare regimes were most common in
377 Kyushu (2.4%). (Some places do, however, seem to host more hybrid regimes over time; hybrid appear very
378 common in rural regimes in Hokkaido both in 2000 (72.4%) and in 2018 (97.8%), characterized by high
379 per-capita spending on all three types of spending priorities.)

380 To summarize, these descriptive investigations show that cities do transition between regime types, and
381 that social welfare regimes have become considerably more common over time. But perhaps these increases
382 are merely artifacts of other demographic or political economic changes; to ensure a more accurate picture,
383 I turn to statistical methods with controls below.

384 4. Methods

385 Next, I turn to statistical models to discern clearer estimates of the effect of time on urban regimes and
386 of key correlates. Using the social welfare regime index as my dependent variable, I applied ordinary least
387 squares models with annual fixed effects, the appropriate technique for a normally distributed outcome.
388 Annual fixed effects account for temporal heterogeneity, the appropriate technique for capturing distinct
389 effects each year. I generated 8 models (see Table A2), each with successively more statistical or design-
390 based controls, to ensure our results are robust to model specification. (Then, for further validation, I
391 repeated these models, predicting as my dependent variable the middle class regime index, in Table A3, and
392 then the developmental regime index, in Table A4).

393 4.1 Basic Covariates

394 I employ XX statistical controls to predict social welfare regime scores. In Model 1, I predicted social
395 welfare regime scores using annual fixed effects plus basic demographic controls, including (1) population,

396 (2) inhabitable area in hectares to account for city size, (3) the percentage of residents over age 65, to
397 account for aging and policy preferences from elders vs. working-age adults, and (4) income per capita in
398 1000s of yen, to account for wealth. Further, I applied basic revenue controls: To represent cities' spending
399 capacity, I controlled for (5) revenue per capita in 1000s of yen; (6) the percentage of revenue coming from
400 national or prefectural government funding, to account for financial autonomy or lack thereof; and (7) each
401 city's real term budget balance, so as not to overvalue the strength of a regime whose spending exceeds its
402 means.

403 In Model 2, I added 5 disaster controls. To account for disaster conditions, I controlled for (8) disaster
404 deaths and (9) buildings damaged, each per 100,000 residents, as well as (10) whether each town was hit by
405 the 2011 tsunami or not (1/0). Further, I controlled for disaster spending rates per 1,000 residents on (11)
406 recovery, meaning in this context physical reconstruction, and (12) disaster relief. None of my urban regime
407 indicators overlap with disaster spending, although we might expect that social welfare and developmental
408 priorities might overlap with recovery and relief efforts, so they are important covariates.

409 Next, in Model 3, I added controls for the other 2 regime indices not being predicted; when predicting
410 social welfare, I controlled for (13) middle class and (14) developmental regime scores, to disentangle their
411 effects.

412 Then, in Model 4, I added partisanship and collective action, alongside necessary controls. To represent
413 support for political parties, I controlled for the percentage of voters who voted for the winning LDP
414 candidate (or its coalition partner Komeito, which competes in separate jurisdiction). This helps account
415 for pork-barrel politics, common among LDP candidates, where winning candidates reward supporting
416 constituents with public works funding and construction contracts. I controlled for this two ways, using
417 votes (15) in the most recent Lower House Election and (16) in the most recent prefectural election, to
418 account for the more diverse politics of local elections. These are distinct concepts, with weak correlations
419 ($r = 0.12$). These are better controls than, say, mayoral partisanship, because Japanese mayors often run
420 as nonpartisan and *must* collaborate across party lines to govern.

421 In addition to political ties, I also controlled for (17) bonding, (18) bridging, and (19) linking social
422 capital, using Fraser's annual social capital indices (2000-2017), which measure each type of social capital
423 from 0 to 1 by averaging indicators from publicly available proxies. These indices demonstrated strong
424 internal and external validity in their validation study (Fraser, 2021), predicting known correlates in public
425 policy on environment, disasters, and health in 9 studies to date (eg. Fraser et al., 2020; Fraser and Aldrich,
426 2021; Fraser et al., 2021; fra, 2022). The *bonding index* averages 7 proxies of in-group ties that capture

427 much residents in a community hail from the *same* social strata, in terms of nationality, religion, education,
428 employment status, employment by gender, communication capacity, and age. These homophily measures
429 (not sheer demographics) capture the density of potential in-group social ties between members of the
430 same social strata (see [Fraser \(2021\)](#) for extended literature). The *bridging index* averages 8 measures of
431 civil society participation, which tend to facilitate encounters and social ties between members of *different*
432 social strata ([Putnam, 2000](#)), including population-normalized rates of nonprofits, religious groups, unions,
433 community centers, libraries, volunteerism, and voter turnout in prefecture and lower house elections. (I
434 simplified the bridging index into equally sized quartiles to avoid collinearity with regime indicators, while
435 still capturing a 4-point gradation from low to high.) Finally, the *linking index* averages 6 rates of access and
436 connection to government officials, including local officials, prefectural officials, police, prefectural assembly
437 members, and voteshare won by the winning party in prefectural and lower house elections.⁴

438 Last, I added to Model 4 controls for (20) education, using the share of college educated adults, (21) the
439 share of unemployed adults in the labor force, and (21) the total migration rate, reflecting the sum of any
440 in- or out-migration, which might negatively impact social cohesion and is an important control.

441 4.2 Robustness Checks

442 Next, I added several further adjustments to ensure robust estimation. In Model 5, I added prefectural
443 fixed effects, with Hokkaido as the baseline and modal category, to account for geographic heterogeneity.
444 Then, in Model 6, I controlled for path dependence using a 1-year lagged dependent variable; for social
445 welfare, this means controlling for the preceding year's social welfare score. Then, in Model 7, to guard
446 against endogeneity bias, I lagged by 1 year all other predictors (aside from annual and prefectural fixed
447 effects), to predict the *next* year's urban regime score using the preceding year's data. Lags constrains the
448 sample in Models 6 onwards to 29755 cases (2001-2018), but ensures conservative estimates.

449 Finally, in Model 8, I add a series of standard log, logit, and root transformations to my predictors
450 to better match their distributions and capture clear nonlinear trends, adding a small constant where
451 necessary. Area, income, and migration were logged. Revenue used the square root; the 10th root was
452 used for Population (to avoid colinearity with spending), disaster deaths, damages,recovery spending, and
453 relief spending (since the distributions have frequent, meaningful zeros). Age, voteshares, social capital,

⁴Winning party support is different from my controls for partisanship, which only captures the LDP/Komeito, excluding the Democratic Party of Japan, which was in power from 2009 to 2012). Social capital indices are distinct from partisanship controls; Lower House partisanship is only weakly correlated with bonding ($r = -0.12$), bridging ($r = \sim 0$), and linking ($r = 0.34$); prefectural partisanship is only weakly correlated with bonding ($r = -0.09$), bridging ($r = -0.05$), and linking ($r = 0.06$).

454 education, and unemployment were logit transformed, since they are bounded at 0 and 1; the bridging index
455 was left in quartiles to avoid collinearity with regime indicators.

456 Descriptive statistics and exact transformation for all predictors are shown in Table A1.

457 These transformations made statistically significant improvements in log-likelihood compared to Model 7
458 ($p < 0.001$); similarly, the change in deviance statistic shows statistically significant reductions in the residual
459 sum of squares after adding new variables to each model, indicating that Model 8 fit best. F Statistics
460 shows that each model fits better than an intercept model. No problematic collinearity was observed, with
461 all variance inflation factor scores below 10, the threshold for problematic collinearity. Multiple imputation
462 ($i = 5$) was used to fill in missing data, representing less than 1% of data points (0.3%).⁵

463 Compared to our first model, our final, fully specified, transformed model explains 92% of the variance
464 in social welfare regimes, an extremely high amount. Further, the sigma statistic (residual standard error)
465 in Table A2 shows that my final model predicts each city-year's social welfare regime score with an average
466 error of just 0.18 points, and within a 95% confidence interval of 0.35 points. These are extremely favorable
467 accuracy levels, considering that my outcome has a range of 5.12.

468 I applied the same analyses to middle class and developmental indices in Tables A3 and A4, as alternative
469 perspectives, but my main analysis focuses on social welfare regimes, to distinguish the drivers behind the
470 rise of this regime over time. My best models (Model 8 in each table) explain extremely high shares of
471 variation in social welfare ($R^2 = 92\%$, Table A2), middle class ($R^2 = 83\%$), and developmental regime
472 scores ($R^2 = 93\%$).

473 *4.3 Simulating the Median City*

474 Finally, to formally test my hypotheses, I simulated quantities of interest from these highly accurate
475 models using 1000 statistical simulations in R. Simulation is a frequently used method for generating model
476 predictions (???), accounting for both estimation uncertainty (using a multivariate normal distribution) and
477 fundamental uncertainty (by averaging over random draws), which allows us to estimate expected outcomes
478 with precise confidence intervals based on 1000 simulations. My simulations calculate the expected outcome
479 for a hypothetical average city-year by varying just one predictor while holding all other predictors constant
480 at their medians (or for categorical variables, their modes).

481 Unless stated otherwise, all simulations below use Model 8 in Table A2 to predict social welfare regime
482 scores for the median city. This city has a population of 24,750 residents, spans 4,170 hectares of inhabitable

⁵Variables with missing data included prefectural votes ($n = 1299, <0.172\%$), lower house votes ($n = 521, <0.069\%$), income ($n = 269, <0.036\%$), and college ($n = 46, <0.006\%$), revenue-derived variables ($n = 14, <0.002\%$).

483 land, hosts an income per capita of 1,199,190 yen per capita (~\$9,183 USD), with 28% of residents over age
484 65. The median city in Japan during this period also has low rates of adults with some college education
485 (25%), moderately high unemployment (4.6%), and shares of high total migration (6%). It received 503,740
486 yen per capita in revenue last year, 16% of which came from national or prefectural government, and has a
487 real term budget balance of +4.7. The city voted for winning LDP/Komeito candidate in moderate-to-high
488 rates, at 51% in Lower House elections and 32% in prefectural elections. Further, we assume median levels
489 of bonding (0.71), bridging (0.32 ~ 2nd quartile), and linking social capital (0.25). Then, to ensure our
490 estimates are unaffected by disaster or other regimes, we hold all disaster conditions and spending variables
491 at 0, for a city unaffected by 3/11, and hold all regime scores from the preceding year at 0 (the natural
492 mean of these Z-scores, very close to the median); to account for time and geography, simulations assume a
493 context of Aichi prefecture in 2018, as an ‘ordinary’ prefecture with cities large and small.

494 *4.4 Time*

Table 4: Linear Hypothesis Tests of Temporal Effects

Year	Social Welfare Regime			Developmental Regime			Middle Class Regime		
	Estimate	SE	95% CI	Estimate	SE	95% CI	Estimate	SE	95% CI
Pre-Disaster									
2002	0	0.01	[-0.01, 0.01]	-0.04***	0.01	[-0.05, -0.03]	+0.01	0.01	[-0.01, 0.02]
2003	-0.02	0.01	[-0.04, -0.01]	-0.08***	0.01	[-0.1, -0.06]	-0.07***	0.01	[-0.09, -0.05]
2004	+0.03**	0.01	[0.01, 0.05]	-0.06***	0.01	[-0.07, -0.05]	-0.02	0.01	[-0.04, 0.02]
2005	+0.04***	0.01	[0.03, 0.05]	-0.07***	0.01	[-0.08, -0.06]	-0.01	0.01	[-0.03, 0.02]
2006	+0.02*	0.01	[0.01, 0.03]	-0.09***	0.01	[-0.1, -0.08]	-0.03***	0.01	[-0.05, -0.01]
2007	+0.03***	0.01	[0.02, 0.04]	-0.1***	0.01	[-0.12, -0.1]	-0.06***	0.01	[-0.08, -0.04]
2008	+0.01	0.01	[-0.01, 0.03]	-0.07***	0.01	[-0.08, -0.06]	-0.05***	0.01	[-0.07, -0.03]
2009	+0.1***	0.01	[0.09, 0.11]	+0.11***	0.01	[0.1, 0.12]	+0.07***	0.01	[0.05, 0.09]
2010	+0.15***	0.01	[0.13, 0.17]	-0.04***	0.01	[-0.05, -0.03]	+0.02	0.01	[-0.01, 0.05]
Mean Pre	+0.04***	0.01	[0.01, 0.05]	-0.05***	0.01	[-0.06, -0.04]	-0.01	0.01	[-0.01, 0.02]
Post-Disaster									
2011	+0.18***	0.01	[0.17, 0.19]	-0.06***	0.01	[-0.07, -0.05]	+0.04***	0.01	[-0.06, 0.1]
2012	+0.13***	0.01	[0.12, 0.14]	-0.06***	0.01	[-0.07, -0.05]	-0.02	0.01	[-0.04, 0.02]
2013	+0.16***	0.01	[0.15, 0.17]	+0.03**	0.01	[0.02, 0.04]	+0.02	0.01	[-0.01, 0.05]
2014	+0.18***	0.01	[0.17, 0.19]	-0.03**	0.01	[-0.04, -0.02]	+0	0.01	[-0.02, 0.02]
2015	+0.09***	0.01	[0.08, 0.1]	-0.02	0.01	[-0.03, -0.01]	-0.04***	0.01	[-0.06, -0.02]
2016	+0.15***	0.01	[0.14, 0.16]	-0.09***	0.01	[-0.1, -0.08]	-0.03**	0.01	[-0.05, -0.01]
2017	+0.13***	0.01	[0.12, 0.14]	-0.02*	0.01	[-0.03, -0.01]	-0.02	0.01	[-0.04, 0.02]
2018	+0.12***	0.01	[0.11, 0.13]	-0.08***	0.01	[-0.09, -0.07]	-0.05***	0.01	[-0.07, -0.03]
Mean Post	+0.14***	0.01	[0.13, 0.15]	-0.04***	0.01	[-0.05, -0.03]	-0.01	0.01	[-0.03, 0.05]
Average Treatment Effect									
Post - Pre	+0.1***	0	[0.09, 0.11]	+0	0	[0, 0]	+0	0	[0, 0]
Net Gain over Time									
2018 - 2002	+0.12***	0.01	[0.11, 0.13]	-0.04***	0.01	[-0.05, -0.03]	-0.06***	0.01	[-0.07, -0.05]

Note:

Statistical Significance: *** p < 0.001, ** p < 0.01, * p < 0.05, . p < 0.10. All p-values and asterisks reflect two-tailed hypothesis tests. Based on annual fixed effects from Model 8 in Tables 3, A1, and A2.

495 4.5 Political Drivers

496 5. Discussion

497 This study measured cities' proclivities towards each of 4 types of urban regimes, commonly discussed in
498 urban policy in the US or Japan (Stone, 1989; Stoker and Mossberger, 1994; Bassett, 1996; Child Hill and
499 Fujita, 2000; Kilburn, 2004; Ramirez-Perez et al., 2008; Sorenson, 2011). These included regimes that aim to
500 maintain the (1) **status quo** in their city (rather undesirable for climate resilience initiatives); regimes that
501 focus on promoting (2) **economic development** in their city (helpful for accelerating renewable energy
502 booms, but perhaps not for ensuring equitable development with public support); regimes that focus on
503 promoting (3) **progressive middle class interests** like health care, education, and environmentalism
504 (helpful for renewable energy, but not as common in less prosperous communities); and regimes that focus
505 on increasing (4) **opportunity through social welfare policies**.

506 In the cases examined in Japan, cities with this last regime type (social welfare) tended to be deeply
507 interested in disaster resilience, where city officials were deeply concerned with residents' vulnerability during
508 crisis.

509 Yet, as I show above in the results of this study, some cities' governing coalitions are overcoming these
510 collective action barriers and spending more on redistributive policies than others. This is critical, consider-
511 ing that my findings show *social welfare regimes* are becoming increasingly common in Japan, and are often
512 mid-size or rural communities where great changes in social welfare are not generally expected.

513 5.1 Contributions to Literature

514 This study's measures also provide a resource for scholars building new theories of urban politics. After
515 a wealth of investigation of urban politics in Japan over the last 30 years, some case studies may no longer
516 be representative of the current state of their city. Until now, the field has lacked a tool for systematically
517 identifying which cities need re-investigation. **Table 4** demonstrates an example of how scholars can utilize
518 these new indices to evaluate commonly cited case studies whose urban regime type may have since changed.

519 **Table 4** lists several notable cities, selected for their relevance to the literature. For each city, columns
520 report (1) the citing literature, (2) this study's numeric and categorical regime classifications for each city
521 in 2000, compared with (3) their classifications in 2018. Each city's index scores are represented as relative
522 percentiles (0-100%), showing *how much* they lean towards that given regime.

523 On the one hand, these indices also point to the intractability of regimes in some cities. For example,
524 several cities have retained their classification. Mitaka, an affluent suburb of Tokyo, remains a caretaker
525 regime (Steiner, 1957; Fukuchi and Yamaguchi, 1997; Ohashi and Phelps, 2021), insulated from economic
526 decline in other suburbs. Sendai, the metropolitan hub of the Tohoku region, remains a middle-class,
527 progressive regime, with stable, continuity in leadership even after substantial impacts of the 2011 triple
528 disaster (Morris, 2012; Tsuji, 2017). Finally, the rustbelt city of Muroran (Edgington, 2013) continues to
529 focus strongly on social welfare even after 20 years, albeit with some change towards a hybrid regime.

530 On the other hand, some cities have changed greatly, and may merit renewed investigation from scholars.
531 Fukushima City originally ranked as a developmental regime, but has since transitioned to a caretaker regime,
532 as the city has had to balance competing interests from national government, local families, weakened
533 agriculture, and decontamination efforts (Otsuki, 2016; Abeysinghe et al., 2022), each aiming to stem out-
534 migration through different means (Zhang et al., 2014).

535 Ishinomaki City, formerly a middle-class regime, has become a hybrid regime, adding considerable spend-
536 ing relative to its peers on social welfare and economic development to attempt to recover after the tsunami
537 devastated its local industry, agriculture, and tourism businesses (Dimmer and Lindenberg, 2014; Matthews,
538 2017; Ji and Imai, 2022). Such findings raise questions for other Tohoku cities investigated after the disaster
539 (Aldrich, 2019; Cheek, 2020).

540 Similarly, Kobe transitioned from a 2000-era focus on middle-class interests and economic development
541 (Nunokawa, 2007; Funck, 2007) to a new focus on social welfare and middle-class interests; much has
542 written about Kobe's less-than-ideal recovery policies from the 1994 disaster, where developers gentrified
543 many low-income neighborhoods and displaced families from housing (Edgington, 2010; Aldrich, 2012; Maly
544 and Shiozaki, 2012). This shift away from developmental-approaches raises exciting questions about what
545 has changed in Kobe since their early-recovery period. The author hopes that this table might provide a
546 spotlight for cities in need of further study.

Table 4: Urban Regime Change in Key Cities from Literature

Prefecture	Municipality	Literature	Regime in 2000			Regime in 2018		
			Type	SW	MC	D	Type	SW

Tokyo	Mitaka	Steiner 1957, Fukushima & Yamaguchi 1997, Ohashi & Phelps 2021	C	25	26	2	C	51	10	2
Fukushima	Fukushima	Otsuki et al. 2016; Abeysinghe et al. 2022	D	8	27	53	C	44	36	35
Miyagi	Ishinomaki	Dimmer & Lindenbergh 2014; Matthews 2017; Ji & Imai 2022	MC	4	53	22	SW-MC-D	85	81	87
Hyogo	Kobe	Nunokawa 2007; Funck 2007; Edgington 2010; Aldrich 2012; Maly et al. 2012	MC-D	42	74	65	SW-MC	68	49	11
Hokkaido	Muroran	Edginton 2013	SW	54	46	37	SW-MC	70	64	38

¹ SW = Social Welfare. MC = Middle Class. D = Developmental. C = Caretaker.

² Numbers rank city-year as a percentile (0-100) compared to all other city-years.

547 5.2 Limitations

548 Finally, this study does come with several limitations. In addition to the aforementioned challenges of
 549 approximating urban regime shifts using spending as a proxy measure, recent scholarship has highlighted
 550 cases where urban regimes are more difficult to characterize. Depending on the country, urban governance
 551 and levels of local autonomy may vary due to institutional differences, laws, and tax structure.⁶²⁻⁶³ Some
 552 cities lack stable governing coalitions, dubbed 'non-regimes.'⁶⁴ In practice, these either would not spend
 553 consistently on the same priorities, or would spend little on any new priorities, resembling a caretaker
 554 regime.

555 Neighborhood organizations, nonprofits, and labor movements can also motivate and structure these
 556 cities' regimes,⁶⁵ as can higher levels of government.⁶⁶ These limitations aside, urban regimes, even amidst
 557 varying governance conditions, remain a useful way to characterize that development remains so prioritized in
 558 some cities, while opportunity-expanding policies remain prioritized in others.⁶⁷ This study's measurement
 559 using developmental, opportunist, and progressive regime indices helps achieve that aim.

560 References

561 (APPENDIX) Appendix

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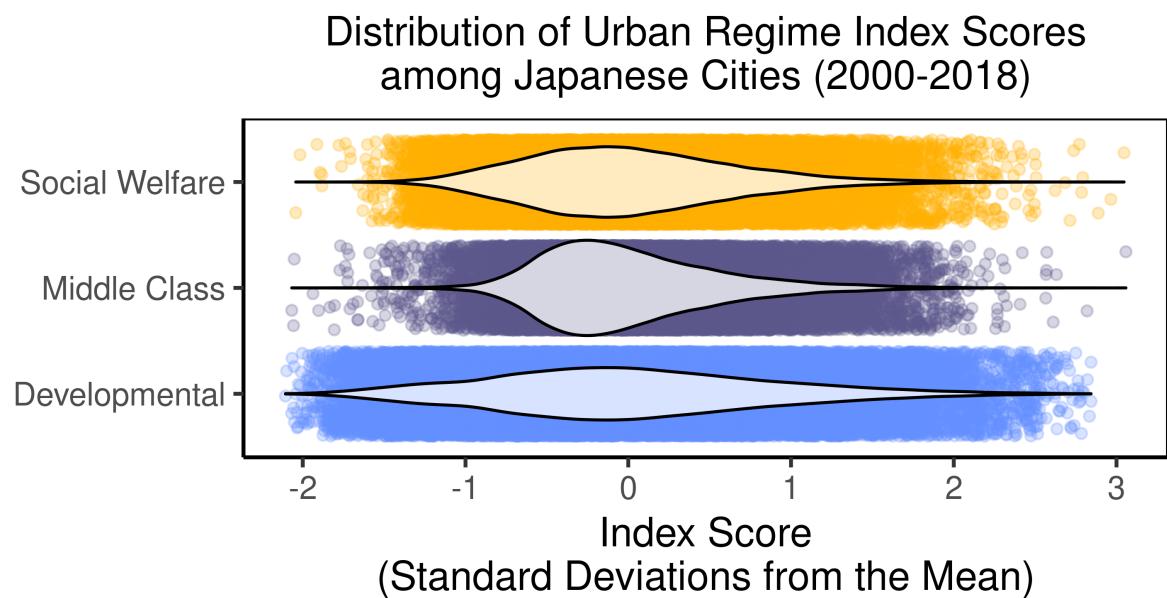


Figure A1: Distributions of Urban Regime Indices

563 *Figure A1*

⁵⁶⁵ *Table A2: Models of Social Welfare Regime Scores*

Table A2: OLS Models of Social Welfare Regimes.

Dependent Variable: Social Welfare Regime Index (Z-score).

Unit of Observation: 31493 Japanese municipality-years (2000-2018), with annual fixed effects.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Best Model Model 8 Transformed ⁴
	Basic Controls	Disaster Controls	Other Regimes	Collective Action	Prefecture Effects ¹	Lagged Outcome ²	Lagged Controls ³	
Demographics								
Population	-0.00*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)	-0.00** (0.00)	-0.00** (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.04*** (0.01)
Inhabitable Area (ha)	0.00*** (0.00)	0.00*** (0.00)	0.00 (0.00)	0.00*** (0.00)	0.00*** (0.00)	-0.00 (0.00)	0.00 (0.00)	0.01*** (0.00)
% Over Age 65	3.40*** (0.04)	3.39*** (0.04)	2.41*** (0.04)	2.38*** (0.05)	1.87*** (0.05)	0.43*** (0.03)	0.47*** (0.04)	0.06*** (0.01)
Income per capita (1000s of yen)	-0.00*** (0.00)	-0.00** (0.00)	0.00* (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00* (0.00)	-0.00*** (0.00)	-0.09*** (0.01)
Revenue								
Revenue per capita (1000s of yen)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
% National & Prefectural Funding	0.42*** (0.03)	0.72*** (0.04)	0.90*** (0.03)	0.78*** (0.03)	0.41*** (0.04)	0.23*** (0.02)	0.06** (0.02)	0.01. (0.00)
Real Term Budget Balance (+/-)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.00*** (0.00)	-0.00 (0.00)	0.00*** (0.00)	0.00 (0.00)
Disaster Conditions								
Disaster Deaths (per 100,000)	-0.00*** (0.00)	0.00. (0.00)	0.00*** (0.00)	-0.00. (0.00)	-0.00** (0.00)	-0.00*** (0.00)	0.00 (0.00)	0.00 (0.01)
Disaster Damage (per 100,000)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	0.00*** (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.01* (0.00)
Hit by 2011 tsunami (1/0)	0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)	0.11*** (0.01)	0.03** (0.01)	0.03** (0.01)	0.02* (0.01)	0.02* (0.01)
Disaster Spending								
Disaster Recovery Spending Rate	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)	0.00 (0.00)	0.00 (0.00)
Disaster Relief Spending Rate	-0.00*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)	-0.00 (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.01*** (0.00)	
Other Urban Regimes								
Middle Class Regime Index			0.16*** (0.00)	0.15*** (0.00)	0.12*** (0.00)	0.04*** (0.00)	0.02*** (0.00)	0.01*** (0.00)
Developmental Regime Index			0.23*** (0.00)	0.20*** (0.00)	0.23*** (0.00)	0.07*** (0.00)	0.02*** (0.00)	-0.00 (0.00)

Political Parties							
% LDP Coalition Votes: Lower House		-0.03*	0.03.	0.01	0.00		
% LDP Coalition Votes: Prefecture		(0.01)	(0.01)	(0.01)	(0.01)		
Collective Action							
Bonding Social Capital (0-1)		-0.77***	-0.97***	-0.28***	-0.32***	-0.07***	
Bridging Social Capital (Quartiles)		(0.05)	(0.08)	(0.05)	(0.05)	(0.01)	
Linking Social Capital (0-1)		0.02***	0.04***	0.01**	0.01***	0.01**	
Extra Controls							
% College Educated		-0.67***	-0.38***	0.01	-0.13***	-0.01	
% Unemployed		(0.03)	(0.04)	(0.02)	(0.03)	(0.01)	
Total Migration (per capita)		2.03***	0.66***	-0.45***	-0.45***	-0.04***	
Lagged Outcome (1 year prior)		1.29***	0.44***	0.08	0.13**	0.00	
Constant	-1.47*** (0.02)	-1.54*** (0.02)	-1.21*** (0.02)	-0.81*** (0.04)	-0.37*** (0.07)	-0.09 (0.05)	0.12* (0.05)
Model Fit							
N (city-years)	31493	31493	31493	31493	31493	29755	29755
Max VIF	2.30	2.33	4.36	5.16	8.12	8.16	8.40
F-statistic (df)	3011.7*** (25)	2619.8*** (30)	3182.5*** (32)	2769.3*** (39)	1590.6*** (86)	4105.5*** (86)	3803.8*** (86)
Change in Deviance (df)	- (5)	-113.1*** (2)	-636.5*** (7)	-133.4*** (47)	-495.4*** (1)	-1298.9*** (1)	-1410.5*** (17)
Sigma (Avg. Error)	0.35	0.34	0.31	0.30	0.28	0.18	0.18
R ²	0.71	0.71	0.76	0.77	0.81	0.92	0.92

Note:

Statistical Significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$. All p-values and asterisks reflect two-tailed hypothesis tests. (F-statistic is one-tailed by default.)

¹ Annual Fixed Effects included in every model. Prefectural effects added starting in Model 5. Excluded from table to conserve space.

² Lagged Outcome by 1 year in Models 6-8, to control for path dependence and any temporal correlation. Constrains final models to 2001-2018.

³ Lagged Controls: All other numeric predictors lagged by 1 year in Models 7-8 to avoid endogeneity bias. Despite the 1% drop in R^2 , lagging controls ensures more conservative estimates.

⁴ Transformations: In Model 8, predictors were log-, logit-, or root-transformed to fit their distribution and nonlinear trends, adding a small constant where necessary. These made statistically significant improvements in log-likelihood compared to Model 7 ($p < 0.001$). Area, income, and migration were logged. Revenue used the square root; the 10th root was used for Population (to avoid collinearity with spending), disaster deaths, damages, recovery spending, and relief spending (since the distributions have frequent, meaningful zeros). Age, voteshares, social capital, education, and unemployment were logit transformed, since they are bounded at 0 and 1. Bridging social capital was split into quartiles, to avoid collinearity with regime indicators.

⁵⁶⁶ *Table A3: Models of Developmental Regime Scores*

Table A3: OLS Models of Developmental Regimes.

Dependent Variable: Developmental Regime Index (Z-score).

Unit of Observation: 31493 Japanese municipality-years (2000-2018), with annual fixed effects.

	Model 1 Basic Controls	Model 2 Disaster Controls	Model 3 Other Regimes	Model 4 Collective Action	Model 5 Prefecture Effects ¹	Model 6 Lagged Outcome ²	Model 7 Lagged Controls ³	Best Model Model 8 Transformed ⁴
Demographics								
Population	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00* (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.12*** (0.01)
Inhabitable Area (ha)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.05*** (0.00)
% Over Age 65	3.38*** (0.05)	3.32*** (0.05)	1.66*** (0.05)	1.88*** (0.06)	2.02*** (0.06)	0.46*** (0.04)	0.48*** (0.04)	0.06*** (0.01)
Income per capita (1000s of yen)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)	-0.00*** (0.00)	-0.12*** (0.01)
Revenue								
Revenue per capita (1000s of yen)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.01*** (0.00)
% National & Prefectural Funding	-0.91*** (0.05)	-0.41*** (0.05)	-0.51*** (0.04)	0.04 (0.04)	0.23*** (0.04)	0.52*** (0.03)	-0.41*** (0.03)	-0.04*** (0.00)
Real Term Budget Balance (+/-)	-0.00 (0.00)	0.00*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
Disaster Conditions								
Disaster Deaths (per 100,000)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)	0.05*** (0.01)	
Disaster Damage (per 100,000)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00** (0.00)	0.00 (0.00)	0.00*** (0.00)	0.00 (0.00)	
Hit by 2011 tsunami (1/0)	0.05* (0.02)	0.05** (0.02)	0.11*** (0.02)	0.05** (0.02)	-0.00 (0.01)	0.03* (0.01)	0.00 (0.01)	
Disaster Spending								
Disaster Recovery Spending Rate	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	0.00*** (0.00)	0.01*** (0.00)	
Disaster Relief Spending Rate	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	0.00*** (0.00)	0.01* (0.00)	
Other Urban Regimes								
Social Welfare Index		0.38*** (0.01)	0.31*** (0.01)	0.33*** (0.01)	0.11*** (0.00)	0.05*** (0.00)	0.02*** (0.00)	
Middle Class Regime Index		0.31*** (0.01)	0.27*** (0.01)	0.25*** (0.01)	0.11*** (0.00)	-0.01* (0.00)	-0.02*** (0.00)	

Political Parties							
% LDP Coalition Votes: Lower House		0.01 (0.01)	-0.00 (0.02)	-0.00 (0.01)	0.02 (0.01)		
% LDP Coalition Votes: Prefecture		-0.01 (0.01)	0.02* (0.01)	-0.00 (0.01)	0.01 (0.01)		
Collective Action							
Bonding Social Capital (0-1)		0.55*** (0.06)	-0.21* (0.09)	-0.13* (0.06)	-0.16* (0.07)	-0.04** (0.01)	
Bridging Social Capital (Quartiles)		0.07*** (0.00)	0.05*** (0.00)	0.01 (0.00)	0.02*** (0.00)	0.01*** (0.00)	
Linking Social Capital (0-1)		-0.18*** (0.04)	0.24*** (0.07)	0.04 (0.04)	0.05 (0.05)	0.01 (0.01)	
Extra Controls							
% College Educated		-1.70*** (0.04)	-1.34*** (0.04)	-0.23*** (0.03)	-0.23*** (0.03)	-0.01* (0.01)	
% Unemployed		-5.60*** (0.15)	-6.55*** (0.17)	-1.65*** (0.11)	-1.92*** (0.12)	-0.09*** (0.01)	
Total Migration (per capita)		0.42*** (0.08)	0.19* (0.08)	-0.07 (0.05)	0.31*** (0.06)	0.04*** (0.01)	
Lagged Outcome (1 year prior)					0.72*** (0.00)	0.81*** (0.00)	0.77*** (0.00)
Constant	-0.68*** (0.03)	-0.82*** (0.02)	0.02 (0.02)	-0.26*** (0.06)	0.05 (0.09)	0.03 (0.06)	0.13* (0.06)
Model Fit							
N (city-years)	31493	31493	31493	31493	31493	29755	29755
Max VIF	2.30	2.33	3.86	4.92	8.12	8.17	8.06
F-statistic (df)	3146.4*** (25)	2893.6*** (30)	3718.3*** (32)	3720.6*** (40)	2128.6*** (86)	5488*** (86)	4723.9*** (86)
Change in Deviance (df)	- (5)	-458.6*** (2)	- (1323.9*** (2))	-805.5*** (8)	-651.8*** (46)	-1923*** (1)	-2127*** (1)
Sigma (Avg. Error)	0.46	0.44	0.39	0.36	0.33	0.21	0.22
R ²	0.71	0.73	0.79	0.83	0.85	0.94	0.93

Note:

Statistical Significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$. All p-values and asterisks reflect two-tailed hypothesis tests. (F-statistic is one-tailed by default.)

¹ Annual Fixed Effects included in every model. Prefectural effects added starting in Model 5. Excluded from table to conserve space.

² Lagged Outcome by 1 year in Models 6-8, to control for path dependence and any temporal correlation. Constrains final models to 2001-2018.

³ Lagged Controls: All other numeric predictors lagged by 1 year in Models 7-8 to avoid endogeneity bias. Despite the 1% drop in R^2 , lagging controls ensures more conservative estimates.

⁴ Transformations: In Model 8, predictors were log-, logit-, or root-transformed to fit their distribution and nonlinear trends, adding a small constant where necessary. These made statistically significant improvements in log-likelihood compared to Model 7 ($p < 0.001$). Area, income, and migration were logged. Revenue used the square root; the 10th root was used for Population (to avoid collinearity with spending), disaster deaths, damages, recovery spending, and relief spending (since the distributions have frequent, meaningful zeros). Age, voteshares, social capital, education, and unemployment were logit transformed, since they are bounded at 0 and 1. Bridging social capital was split into quartiles, to avoid collinearity with regime indicators.

567 Table A4: Models of Middle Class Regime Scores

Table A4: OLS Models of Middle Class Regimes.

Dependent Variable: Middle Class Regime Index (Z-score).

Unit of Observation: 31493 Japanese municipality-years (2000-2018), with annual fixed effects.

	Model 1 Basic Controls	Model 2 Disaster Controls	Model 3 Other Regimes	Model 4 Collective Action	Model 5 Prefecture Effects ¹	Model 6 Lagged Outcome ²	Model 7 Lagged Controls ³	Best Model Model 8 Transformed ⁴
Demographics								
Population	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)	-0.07*** (0.01)
Inhabitable Area (ha)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00 (0.00)	0.00*** (0.00)	0.03*** (0.00)
% Over Age 65	1.26*** (0.05)	1.24*** (0.04)	-0.44*** (0.05)	-0.44*** (0.06)	0.11 (0.07)	-0.15*** (0.04)	0.14** (0.04)	0.00 (0.01)
Income per capita (1000s of yen)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	-0.00 (0.00)	-0.04*** (0.01)
Revenue								
Revenue per capita (1000s of yen)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)
% National & Prefectural Funding	-0.86*** (0.04)	-0.53*** (0.04)	-0.59*** (0.04)	-0.63*** (0.04)	-0.58*** (0.05)	0.07* (0.03)	-0.27*** (0.03)	-0.04*** (0.00)
Real Term Budget Balance (+/-)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.00*** (0.00)	-0.00** (0.00)	0.00* (0.00)	0.00 (0.00)
Disaster Conditions								
Disaster Deaths (per 100,000)	-0.00*** (0.00)	-0.00** (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.03** (0.01)
Disaster Damage (per 100,000)	-0.00* (0.00)	-0.00* (0.00)	-0.00 (0.00)	-0.00** (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)
Hit by 2011 tsunami (1/0)	-0.01 (0.02)	-0.03 (0.02)	-0.03* (0.02)	-0.02 (0.02)	-0.02 (0.02)	0.01 (0.01)	0.01 (0.01)	0.00 (0.01)
Disaster Spending								
Disaster Recovery Spending Rate	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00* (0.00)	-0.00* (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Disaster Relief Spending Rate	-0.00*** (0.00)	-0.00** (0.00)	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00** (0.00)	0.01 (0.00)	0.01 (0.00)
Other Urban Regimes								

Social Welfare Index	0.23*** (0.01)	0.23*** (0.01)	0.19*** (0.01)	0.06*** (0.00)	0.04*** (0.00)	0.03*** (0.00)	
Developmental Regime Index	0.27*** (0.01)	0.27*** (0.01)	0.28*** (0.01)	0.11*** (0.00)	0.00 (0.00)	-0.02*** (0.00)	
Political Parties							
% LDP Coalition Votes: Lower House		0.03. (0.02)	0.02 (0.02)	0.00 (0.01)	-0.00 (0.01)		
% LDP Coalition Votes: Prefecture		-0.02* (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.01 (0.01)		
Collective Action							
Bonding Social Capital (0-1)		-0.53*** (0.07)	0.25** (0.10)	0.04 (0.06)	-0.11 (0.07)	-0.03* (0.01)	
Bridging Social Capital (Quartiles)		-0.01*** (0.00)	0.02*** (0.00)	0.00 (0.00)	0.02*** (0.00)	0.01*** (0.00)	
Linking Social Capital (0-1)		0.15*** (0.04)	0.10 (0.07)	-0.00 (0.05)	-0.01 (0.05)	0.00 (0.01)	
Extra Controls							
% College Educated		0.25*** (0.04)	0.09. (0.05)	0.16*** (0.03)	-0.08* (0.03)	0.00 (0.01)	
% Unemployed		-1.50*** (0.16)	-1.27*** (0.18)	-0.01 (0.12)	-1.18*** (0.12)	-0.07*** (0.01)	
Total Migration (per capita)		1.02*** (0.08)	1.33*** (0.08)	0.21*** (0.06)	0.33*** (0.06)	0.02*** (0.01)	
Lagged Outcome (1 year prior)					0.75*** (0.00)	0.80*** (0.00)	
Constant	-0.74*** (0.02)	-0.82*** (0.02)	-0.24*** (0.02)	0.19** (0.07)	-0.45*** (0.09)	-0.09 (0.06)	
Model Fit							
N (city-years)	31493	31493	31493	31493	31493	29755	29755
Max VIF	2.30	2.33	4.38	5.32	8.12	8.16	8.06
F-statistic (df)	1039.7*** (25)	921.8*** (30)	1242*** (32)	1016.3*** (40)	552*** (86)	1872.4*** (86)	1715.6*** (86)
Change in Deviance (df)	-	-148*** (5)	-867.7*** (2)	-54*** (8)	-365.3*** (46)	-2177.3*** (1)	-2337*** (17)
Sigma (Avg. Error)	0.41	0.40	0.37	0.36	0.35	0.22	0.23
R ²	0.45	0.47	0.56	0.56	0.60	0.84	0.83

Note:

Statistical Significance: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$. All p-values and asterisks reflect two-tailed hypothesis tests. (F-statistic is one-tailed by default.)

¹ Annual Fixed Effects included in every model. Prefectural effects added starting in Model 5. Excluded from table to conserve space.

² Lagged Outcome by 1 year in Models 6-8, to control for path dependence and any temporal correlation. Constrains final models to 2001-2018.

³ Lagged Controls: All other numeric predictors lagged by 1 year in Models 7-8 to avoid endogeneity bias. Despite the 1% drop in R^2 , lagging controls ensures more conservative estimates.

⁴ Transformations: In Model 8, predictors were log-, logit-, or root-transformed to fit their distribution and nonlinear trends, adding a small constant where necessary. These made statistically significant improvements in log-likelihood compared to Model 7 ($p < 0.001$). Area, income, and migration were logged. Revenue used the square root; the 10th root was used for Population (to avoid collinearity with spending), disaster deaths, damages, recovery spending, and relief spending (since the distributions have frequent, meaningful zeros). Age, voteshares, social capital, education, and unemployment were logit transformed, since they are bounded at 0 and 1. Bridging social capital was split into quartiles, to avoid collinearity with regime indicators.

568 **References**

- 569 Leaders or networkers? the role of mayors in renewable energy transition. *Environmental Innovation and Societal Transitions*,
570 42:301–316, 2022. ISSN 2210-4224. doi: <https://doi.org/10.1016/j.eist.2022.01.003>.
- 571 Sudeepa Abeysinghe, Claire Leppold, Akihiko Ozaki, and Alison Lloyd Williams. *Health, Wellbeing and Community Recovery*
572 *in Fukushima*. Taylor & Francis, 2022.
- 573 Alexander Ahammer and Analisa Packham. Dying to work: Effects of unemployment insurance on health. Technical report,
574 National Bureau of Economic Research, 2020.
- 575 L. Alcorta, J. Smits, H.J. Swelund, and Eelke de Jong. The 'dark side' of social capital: A cross-national examination of the
576 relationship between social capital and violence in africa. *Social Indicators Research*, 149:445–465, 2020.
- 577 Daniel P Aldrich. Building resilience. *Social capital in post-disaster recovery*, page 2012, 2012.
- 578 Daniel P Aldrich. *Black wave: How networks and governance shaped Japan's 3/11 disasters*. University of Chicago Press,
579 Chicago, IL, 2019.
- 580 Daniel P. Aldrich and Timothy Fraser. All politics is local: Judicial and electoral institutions' role in japan's nuclear restarts.
581 *Pacific Affairs*, 90:433–457, 2017.
- 582 Daniel P Aldrich and Emi Kyota. Creating community resilience through elder-led physical and social infrastructure. *Disaster*
583 *medicine and public health preparedness*, 11(1):120–126, 2017.
- 584 Daniel P Aldrich and Michelle A Meyer. Social capital and community resilience. *American behavioral scientist*, 59(2):254–269,
585 2015.
- 586 Sarah F Anzia. Looking for influence in all the wrong places: How studying subnational policy can revive research on interest
587 groups. *The Journal of Politics*, 81(1):343–351, 2019.
- 588 Sonia Arbaci. *Paradoxes of segregation: Housing systems, welfare regimes and ethnic residential change in Southern European*
589 *cities*. John Wiley & Sons, 2019.
- 590 Javier Asensio, Anna Matas, and José-Luis Ramond. Redistributive effects of subsidies to urban public transport in spain.
591 *Transport Reviews*, 23(4):433–452, 2003.
- 592 Ziona Austrian and Mark S Rosentraub. Cities, sports, and economic change: A retrospective assessment. *Journal of urban*
593 *affairs*, 24(5):549–563, 2002.
- 594 Lucy Baker and Jon Phillips. Tensions in the transition: The politics of electricity distribution in south africa. *Environment*
595 *and Planning C: Politics and Space*, 37(1):177–196, 2019.
- 596 Keith Bassett. Partnerships, business elites and urban politics: new forms of governance in an english city? *Urban Studies*, 33
597 (3):539–555, 1996.
- 598 S. A. Berkowitz and S. Basu. Unemployment insurance, health-related social needs, health care access, and mental health
599 during the covid-19 pandemic. *JAMA Internal Medicine*, 181(5):699–702, 2021.
- 600 Marlon G Boarnet and Andrew F Haughwout. Do highways matter? evidence and policy implications of highways' influence
601 on metropolitan development. 2000.
- 602 Hanna Breitz, Matto Mildenberger, and Leah Stokes. The political logics of clean energy transitions. *Business and Politics*,
603 20(4):492–522, 2018.
- 604 Harriet Bulkeley and Michele M Betsill. Revisiting the urban politics of climate change. *Environmental politics*, 22(1):136–154,
605 2013.
- 606 Michelle Camou. Labor-community coalitions through an urban regime lens: Institutions and ideas in building power from
607 below. *Urban Affairs Review*, 50(5):623–647, 2014.
- 608 Andrea Louise Campbell. Policy makes mass politics. *Annual Review of Political Science*, 15:333–351, 2012.
- 609 Scott Campbell. Green cities, growing cities, just cities?: Urban planning and the contradictions of sustainable development.
610 *Journal of the American Planning Association*, 62(3):296–312, 1996.
- 611 Amy Catalinac, Bruce Bueno de Mesquita, and Alastair Smith. A tournament theory of pork barrel politics: The case of japan.
612 *Comparative Political Studies*, 53(10-11):1619–1655, 2020.
- 613 Wesley Cheek. The paradox of community involvement: rebuilding minamisanriku. *Disaster Prevention and Management: An*
614 *International Journal*, 29(6):893–907, 2020.
- 615 Richard Child Hill and Kuniko Fujita. State restructuring and local power in japan. *Urban Studies*, 37(4):673–690, 2000.
- 616 Jill Clark. Six urban regime types: The effects of state laws and citizen participation on the development of alternative regimes.
617 *Public Administration Quarterly*, 25:3–48.
- 618 Roger D Congleton and Randall W Bennett. On the political economy of state highway expenditures: Some evidence of the
619 relative performance of alternative public choice models. *Public choice*, 84(1):1–24, 1995.
- 620 Christopher A Cooper, Anthony J Nownes, and Steven Roberts. Perceptions of power: Interest groups in local politics. *State*
621 *and Local Government Review*, 37(3):206–216, 2005.
- 622 Robin S Cox and Karen-Marie Elah Perry. Like a fish out of water: Reconsidering disaster recovery and the role of place and
623 social capital in community disaster resilience. *American journal of community psychology*, 48(3):395–411, 2011.
- 624 Nuno F da Cruz, Philipp Rode, and Michael McQuarrie. New urban governance: A review of current themes and future
625 priorities. *Journal of Urban Affairs*, 41(1):1–19, 2019.
- 626 Robert A Dahl. *Who governs?: Democracy and power in an American city*. Yale University Press, 1961.
- 627 Kathryn Davidson, Lars Coenen, Michele Acuto, and Brendan Gleeson. Reconfiguring urban governance in an age of rising
628 city networks: A research agenda. *Urban Studies*, 56(16):3540–3555, 2019.
- 629 Jonathan S Davies. Partnerships versus regimes: Why regime theory cannot explain urban coalitions in the uk. *Journal of*
630 *Urban Affairs*, 25(3):253–270, 2003.
- 631 Jonathan S Davies. *Partnerships and regimes: the politics of urban regeneration in the UK*. Routledge, 2017.

- 632 Jonathan S Davies and Ismael Blanco. Austerity urbanism: Patterns of neo-liberalisation and resistance in six cities of spain
 633 and the uk. *Environment and Planning A*, 49(7):1517–1536, 2017.
- 634 Jonathan S Davies and David L Imbroscio. *Theories of urban politics*. Sage, 2009.
- 635 Justin de Benedictis-Kessner and Christopher Warshaw. Mayoral partisanship and municipal fiscal policy. *The Journal of
 636 Politics*, 78(4):1124–1138, 2016.
- 637 Mark De Socio. Business community structures and urban regimes: A comparative analysis. *Journal of urban Affairs*, 29(4):
 638 339–366, 2007.
- 639 Richard E DeLeon. The urban antiregime: Progressive politics in san francisco. *Urban Affairs Quarterly*, 27(4):555–579, 1992.
- 640 Dag Detter and Stefan Folster. *The Public Wealth of Cities: How to Unlock Hidden Assets to Boost Growth and Prosperity*.
 641 Brookings Institution Press, Washington, D.C., 2017.
- 642 Christian Dimmer and Jan Lindenberg. Mapping social innovation and strengthening community resilience: Bottom-up recovery
 643 initiatives and community spaces in post-disaster ishinomaki, japan. In *paper delivered at Map-ping Culture-Communities,
 644 Sites & Stories Conference, Coimbra*, 2014.
- 645 David W. Edgington. *Reconstructing Kobe: The geography of crisis and opportunity*. University of British Columbia Press,
 646 2010.
- 647 David W Edgington. Restructuring japan's rustbelt: The case of muroran, hokkaido, 1985-2010. *Urban Affairs Review*, 49(4):
 648 475–524, 2013.
- 649 Katherine Levine Einstein and David M Glick. Mayors, partisanship, and redistribution: Evidence directly from us mayors.
 650 *Urban Affairs Review*, 54(1):74–106, 2018.
- 651 Charles C. Euchner. *Playing the Field: Why Sports Teams Move and Cities Fight to Keep Them*. Johns Hopkins University
 652 Press, 1993.
- 653 Susan Fainstein. *The just city*. Cornell University Press, 2010.
- 654 Nils Fearnley and Jørgen Aarhaug. Subsidising urban and sub-urban transport – distributional impacts. *European transport
 655 research review*, 11(1):1–10, Dec 17, 2019. doi: 10.1186/s12544-019-0386-0. URL <https://link.springer.com/article/10.1186/s12544-019-0386-0>.
- 656 Mark Frankena. Income distributional effects of urban transit subsidies. *Journal of transport economics and policy*, 7(3):
 657 215–230, Sep 1, 1973. URL <https://www.jstor.org/stable/20052329>.
- 658 Timothy Fraser. Japanese social capital and social vulnerability indices: Measuring drivers of community resilience 2000-2017.
 659 *International Journal of Disaster Risk Reduction*, 52(101965):1–11, 2021. URL <https://doi.org/10.1016/j.ijdrr.2020.101965>.
- 660 Timothy Fraser and Daniel P. Aldrich. The dual effect of social ties on covid-19 spread in japan. *Scientific Reports*, 11(1596):
 661 1–12, 2021. URL <https://doi.org/10.1038/s41598-021-81001-4>.
- 662 Timothy Fraser, Lily Cunningham, Mary Bancroft, Amy Hunt, Eri Lee, and Amos Nasongo. Climate crisis at city hall:
 663 How japanese communities mobilize to eliminate emissions. *Environmental Innovation and Societal Transitions*, 37:361–
 664 380, 2020. doi: <https://doi.org/10.1016/j.eist.2020.09.006>. URL <https://www.sciencedirect.com/science/article/pii/S2210422420301192>.
- 665 Timothy Fraser, Larissa Morikawa, and Daniel P. Aldrich. Rumor has it: The role of social ties and misinformation in evacuation
 666 to nearby shelters after disaster. *Climate Risk Management*, 33:100320, 2021.
- 667 Ronny Freier and Sebastian Thomasius. Voters prefer more qualified mayors, but does it matter for public finances? evidence
 668 for germany. *International Tax and Public Finance*, 23(5):875–910, 2016.
- 669 Takao Fukuchi and Makoto Yamaguchi. An econometric analysis of a suburban city the case of mitaka in tokyo. *Studies in
 670 Regional Science*, 27(2):1–31, 1997.
- 671 H. Fukui and S. N. Fukai. Pork barrel politics, networks, and local economic development in contemporary japan. *Asian
 672 Survey*, 36(3):268–286, 1996.
- 673 Harutoshi Funabashi. Minamata disease and environmental governance. *International Journal of Japanese Sociology*, 15:7–25,
 674 2006.
- 675 Carolin Funck. *Machizukuri, civil society, and the transformation of Japanese city planning: cases from Kobe*, pages 137–156.
 676 Living Cities in Japan: Citizens' Movements, Machizukuri, and Local Environments. Routledge, New York, 2007.
- 677 Richard Gendron and G William Domhoff. *The leftmost city: Power and progressive politics in Santa Cruz*. Routledge, 2018.
- 678 Frank D. Gilliam. Exploring minority empowerment: Symbolic politics, governing coalitions and traces of political style in los
 679 angeles. *American Journal of Political Science*, 40(1):56–81, 1996.
- 680 Scott Gissendanner. Methodology problems in urban governance studies. *Environment and Planning C: Government and
 681 Policy*, 21(5):663–685, 2003.
- 682 Edward L. Glaeser, Matt Resseger, and Kristina Tobio. Inequality in cities. *Journal of Regional Science*, 49(4):617–646, 2009.
- 683 Hai Guo and Alfred Tat-Kei Ho. Support for contracting-out and public-private partnership: exploring citizens' perspectives.
 684 *Public Management Review*, 21(5):629–649, 2019.
- 685 Jacob S Hacker. Privatizing risk without privatizing the welfare state: The hidden politics of social policy retrenchment in the
 686 united states. *American Political Science Review*, 98(2):243–260, 2004.
- 687 Christopher V Hawkins, Qian Hu, and Richard C Feiock. Self-organizing governance of local economic development: Informal
 688 policy networks and regional institutions. *Journal of Urban Affairs*, 38(5):643–660, 2016.
- 689 Mahito Hayashi. Times and spaces of homeless regulation in japan, 1950s-2000s: Historical and contemporary analysis.
 690 *International Journal of Urban and Regional Research*, 37:1188–1212, 2013.
- 691 Richard Child Hill and Kuniko Fujita. Global interdependence and urban restructuring in japan. *Japanese cities in the world
 692 economy*, pages 280–297, 1993.
- 693 Christopher Hood. *Shinkansen: from bullet train to symbol of modern Japan*. Routledge, 2006.

- 697 Peter Hupe and Michael Hill. Street-level bureaucracy and public accountability. *Public administration*, 85(2):279–299, 2007.
- 698 David L Imbroscio. Overcoming the neglect of economics in urban regime theory. *Journal of Urban Affairs*, 25(3):271–284,
- 699 2003.
- 700 David L Imbroscio. The imperative of economics in urban political analysis: A reply to clarence n. stone. *Journal of Urban*
- 701 *Affairs*, 26(1):21–26, 2004.
- 702 Torben Iversen and David Soskice. Electoral institutions and the politics of coalitions: Why some democracies redistribute
- 703 more than others. *American political science review*, 100(2):165–181, 2006.
- 704 Yao Ji and Heide Imai. Creative revitalization in rural japan: Lessons from ishinomaki. *Asian Studies*, 10(1):211–240, 2022.
- 705 Bruce Katz and Katherine Allen. Cities matter: Shifting the focus of welfare reform, 2001. URL <https://www.brookings.edu/articles/cities-matter-shifting-the-focus-of-welfare-reform/>.
- 706 H Whitt Kilburn. Explaining us urban regimes: A qualitative comparative analysis. *Urban Affairs Review*, 39(5):633–651,
- 707 2004.
- 708 Eric Klinenberg. *Palaces for the people: How social infrastructure can help fight inequality, polarization, and the decline of*
- 709 *civic life*. Crown, 2018.
- 710 Dicky WL Lai and Ernest WT Chui. A tale of two cities: A comparative study on the welfare regimes of hong kong and macao.
- 711 *Social Policy and Society*, 13(2):263–274, 2014.
- 712 Sébastien Lambelet. Filling in the resource gap of urban regime analysis to make it travel in time and space. *Urban Affairs*
- 713 *Review*, 55(5):1402–1432, 2019.
- 714 Michael Lipsky. *Street-level bureaucracy: Dilemmas of the individual in public service*. Russell Sage Foundation, 1980.
- 715 John R Logan and Gordana Rabrenovic. Neighborhood associations: Their issues, their allies, and their opponents. *Urban*
- 716 *Affairs Quarterly*, 26(1):68–94, 1990.
- 717 Rianne Mahon. Challenging national regimes from below: Toronto child-care politics. *Politics and Gender*, 3(1):55–78, 2007.
- 718 doi: 10.1017/S1743923X07070043.
- 719 Elizabeth Maly and Yoshimitsu Shiozaki. Towards a policy that supports people-centered housing recovery—learning from
- 720 housing reconstruction after the hanshin-awaji earthquake in kobe, japan. *International Journal of Disaster Risk Science*,
- 721 3:56–65, 2012.
- 722 Jamie Matthews. The role of a local newspaper after disaster: An intrinsic case study of ishinomaki, japan. *Asian Journal of*
- 723 *Communication*, 27(5):464–479, 2017.
- 724 Miller McPherson, Lynn Smith-Lovin, and James M Cook. Birds of a feather: Homophily in social networks. *Annual review*
- 725 *of sociology*, 27(1):415–444, 2001.
- 726 Allan H Meltzer and Scott F Richard. A rational theory of the size of government. *Journal of Political Economy*, 89(5):914–927,
- 727 1981.
- 728 Allan H. Meltzer and Richard F. Scott. A rational theory of the size of government. *Journal of Political Economy*, 89:914–927,
- 729 1981.
- 730 Suzanne Mettler. *The submerged state: How invisible government policies undermine American democracy*. University of
- 731 Chicago Press, 2011.
- 732 Suzanne Mettler et al. *Soldiers to citizens: The GI Bill and the making of the greatest generation*. Oxford University Press
- 733 on Demand, 2005.
- 734 John F Morris. Recovery in tōhoku. In *Natural Disaster and Nuclear Crisis in Japan*, pages 55–72. Routledge, 2012.
- 735 Karen Mossberger and Gerry Stoker. The evolution of urban regime theory: the challenge of conceptualization. *Urban Affairs*
- 736 *Review*, 36(6):810–835, 2001. URL <https://doi.org/10.1177/10780870122185109>.
- 737 Ted Mouw. Estimating the causal effect of social capital: A review of recent research. *Annual Review of Sociology*, 32:79–102,
- 738 2006. URL <http://www.jstor.org/stable/29737732>.
- 739 Carlos Munoz and Charles Henry. Rainbow coalitions in four big cities: San antonio, denver, chicago and philadelphia. *PS:*
- 740 *Political Science & Politics*, 19(3):598–609, 1986.
- 741 Bruce Nissen. *Fighting for jobs: case studies of labor-community coalitions confronting plant closings*. State University of New
- 742 York Press, 1995.
- 743 Hiroshi Nunokawa. *Machizukuri and historical awareness in the old town of Kobe*, pages 172–186. Living Cities in Japan:
- 744 Citizens' Movements, Machizukuri, and Local Environments. Routledge, New York, 2007.
- 745 Hiroaki Ohashi and Nicholas A Phelps. Suburban (mis) fortunes: Outer suburban shrinkage in tokyo metropolis. *Urban*
- 746 *Studies*, 58(14):3029–3049, 2021.
- 747 Kei Otsuki. Procedural equity and corporeality: Imagining a just recovery in fukushima. *Journal of Rural Studies*, 47:300–310,
- 748 2016.
- 749 Julia Payson. *When Cities Lobby: How Local Governments Compete for Power in State Politics*. Oxford Scholarship Online,
- 750 2022.
- 751 Paul Peterson. *City Limits*. Chicago University Press, Chicago, IL, 1981.
- 752 Jon Pierre. Can urban regimes travel in time and space? urban regime theory, urban governance theory, and comparative
- 753 urban politics. *Urban Affairs Review*, 50(6):864–889, 2014.
- 754 Paul Pierson. *Dismantling the Welfare State? Reagan, Thatcher, and the Politics of Retrenchment*. Cambridge University
- 755 Press, Cambridge, UK, 1994.
- 756 Kent E Portney and Jeffrey M Berry. The impact of local environmental advocacy groups on city sustainability policies and
- 757 programs. *Policy Studies Journal*, 44(2):196–214, 2016.
- 758 John Portz. *The politics of plant closings*. University Press of Kansas, 1990.
- 759 Robert D Putnam. *Bowling Alone: The Collapse and Revival of American Community*. Simon and Schuster, 2000.
- 760 Antonia Ramirez-Perez, Clement J. Navarro-Yanez, and Terry N. Clark. Mayors and local governing coalitions in democratic
- 761

- countries: A cross-national comparison. *Local Government Studies*, 34(2):147–178, 2008.
- Donald L Rosdil. The survival of progressive urban politics amid economic adversity. *Journal of Urban Affairs*, 2016.
- Marit Rosol, Vincent Béal, and Samuel Mössner. Greenest cities? the (post-) politics of new urban environmental regimes. *Environment and Planning A: Economy and Space*, 49(8):1710–1718, 2017.
- Richard Rothstein. *The Color of Law: A Forgotten History of How Our Government Segregated America*. Liveright Press, New York, 2017.
- David Rueda and Daniel Stegmüller. *Who wants what?: Redistribution preferences in comparative perspective*. Cambridge University Press, 2019.
- Antonio Paolo Russo and Alessandro Scarnato. “barcelona in common”: A new urban regime for the 21st-century tourist city? *Journal of Urban Affairs*, 40(4):455–474, 2018.
- Asato Saito. Global city formation in a capitalist developmental state: Tokyo and the waterfront sub-centre project. *Urban Studies*, 40(2):283–308, 2003.
- Martin Saiz. Mayoral perceptions of developmental and redistributive policies. *Urban affairs review (Thousand Oaks, Calif.)*, 34(6):820–842, Jul 1999. doi: 10.1177/10780879922184220. URL <https://journals.sagepub.com/doi/full/10.1177/10780879922184220>.
- Chiara Saraceno. *Introduction: exploring social assistance dynamics*, pages 1–34. Bristol University Press, 1 edition, 2002. URL <http://www.jstor.org/stable/j.ctt1t89hv.6>.
- Jefferey M Sellers. The nation-state and urban governance: Toward multilevel analysis. *Urban Affairs Review*, 37(5):611–641, 2002.
- HaeRan Shin, Se Hoon Park, and Jung Won Sonn. The emergence of a multiscale growth regime and scalar tension: the politics of urban development in songdo new city, south korea. *Environment and Planning C: Government and Policy*, 33(6):1618–1638, 2015.
- William Sites. The limits of urban regime theory: New york city under koch, dinkins, and giuliani. *Urban Affairs Review*, 32(4):536–557, 1997.
- Andre Sorensen. Uneven processes of institutional change: path dependence, scale and the contested regulation of urban development in japan. *International Journal of Urban and Regional Research*, 35(4):714–734, 2011.
- Andre Sorensen, Junichiro Okata, and Sayaka Fujii. Urban renaissance as intensification: Building regulation and the rescaling of place governance in tokyo’s high-rise manshon boom. *Urban Studies*, 47(3):556–583, 2010.
- Jesse Frederick Steiner. *Mitaka, from Village to Suburban City: A Study of Tokyo’s Urban Fringe: a Condensed English Version*. Rural Welfare Research Institute, International Christian University, 1957.
- Gerry Stoker. Public-private partnerships and urban governance. In *Partnerships in urban governance*, pages 34–51. Springer, 1998.
- Gerry Stoker and Karen Mossberger. Urban regime theory in comparative perspective. *Environment and Planning C: Government and Policy*, 12:195–212, 1994.
- Clarence N. Stone. *Regime Politics: Governing Atlanta*. University Press of Kansas, Lawrence, KS, 1989.
- Clarence N. Stone. Urban regimes and the capacity to govern: A political economy approach. *Journal of Urban Affairs*, 15(1):1–28, 1993. URL <https://doi.org/10.1111/j.1467-9906.1993.tb00300.x>.
- Clarence N. Stone. Reflections on regime politics: From governing coalition to urban political order. *Urban Affairs Review*, 51(1):101–137, 2015. URL <https://doi.org/10.1177/1078087414558948>.
- Clarence N Stone, Robert P Stoker, John Betancur, Susan E Clarke, Marilyn Dantico, Martin Horak, Karen Mossberger, Juliet Musso, Jefferey M Sellers, Ellen Shiau, et al. Urban neighborhoods in a new era. In *Urban Neighborhoods in a New Era*. University of Chicago Press, 2015.
- Noriko Sugiyama and Tsuneo Takeuchi. Local policies for climate change in japan. *Journal of Environment and Development*, 17:424–441.
- Yasuo Takao. Co-governance by local government and civil society groups in japan: Balancing equity and efficiency for trust in public institutions, asia pacific. *Journal of Public Administration*, 28:171–199, 2006. URL <https://doi.org/10.1080/23276665.2006.10779321>.
- Helen Tangires. Feeding the cities: Public markets and municipal reform in the progressive era. *National Archives*, 29(1), 1997. URL <https://www.archives.gov/publications/prologue/1997/spring/markets.html>.
- J Phillip Thompson III. *Double trouble: Black mayors, black communities, and the call for a deep democracy*. Oxford University Press, 2005.
- Fran Tonkiss. City government and urban inequalities. *City (London, England)*, 24(1-2):286–301, Mar 3, 2020. doi: 10.1080/13604813.2020.1739931. URL <http://www.tandfonline.com/doi/abs/10.1080/13604813.2020.1739931>.
- Lily L. Tsai. Solidary groups, informal accountability, and local public goods provision in rural china. *American Political Science Review*, 101(2):355–372, 2007. doi: 10.1017/S0003055407070153.
- Yuki Tsuji. Explaining the increase in female mayors: Gender-segregated employment and pathways to local political leadership. *Social Science Japan Journal*, 20(1):37–57, 2017.
- Takashi Tsukamoto. Neoliberalization of the developmental state: Tokyo’s bottom-up politics and state rescaling in japan. *International Journal of Urban and Regional Research*, 36(1):71–89, 2012.
- Robyne S Turner. Growth politics and downtown development: The economic imperative in sunbelt cities. *Urban Affairs Quarterly*, 28(1):3–21, 1992.
- Jeremy Wallace. Cities, redistribution, and authoritarian regime survival. *The Journal of politics*, 75(3):632–645, Jul 2013. doi: 10.1017/S0022381613000340. URL <https://dx.doi.org/10.1017/S0022381613000340>.
- Timothy PR Weaver. Charting change in the city: Urban political orders and urban political development. *Urban Affairs Review*, 58(2):319–355, 2022.

- 827 M. Weir and D. King. *Who Gets What?: The New Politics of Insecurity (SSRC Anxieties of Democracy*, pages 188–210.
828 Cambridge University Press, Cambridge, UK, 2021.
- 829 Robert K Whelan, Alma H Young, and Mickey Lauria. Urban regimes and racial politics in new orleans. *Journal of Urban
830 Affairs*, 16(1):1–21, 1994.
- 831 I. Wiesel and F. Liu. Conceptualising modes of redistribution in public urban infrastructure. *Urban Studies*, 58(8):1561–1580,
832 2021.
- 833 Michael Woolcock. The rise and routinization of social capital, 1988–2008. *Annual Review of Political Science*, 13(1):469–487,
834 2010. URL <https://doi.org/10.1146/annurev.polisci.031108.094151>.
- 835 Clayton Wukich. Connecting mayors: The content and formation of twitter information networks. *Urban Affairs Review*, 58
836 (1):33–67, 2022.
- 837 Etsuko Yasui. Community vulnerability and capacity in post-disaster recovery: the cases of mano and mikura neighbourhoods
838 in the wake of the 1995 kobe earthquake, 2007.
- 839 Mi-Gyeung Yeum. Partnership, participation and partition in urban development politics in kitakyushu, japan. *Asian Per-
840 spective*, 26(2):157–178, 2002.
- 841 Hui Zhang, Wanglin Yan, Akihiro Oba, and Wei Zhang. Radiation-driven migration: the case of minamisoma city, fukushima,
842 japan, after the fukushima nuclear accident. *International journal of environmental research and public health*, 11(9):
843 9286–9305, 2014.
- 844 Pengyu Zhu and Jeffrey R Brown. Donor states and donee states: investigating geographic redistribution of the us federal-aid
845 highway program 1974–2008. *Transportation*, 40(1):203–227, 2013.