Do Priorities for Developing Livable Cities Change Over Time?

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Abstract

This study examines changes in elements considered essential for developing livable cities, as identified by researchers and practitioners in urban planning, public health, and related fields in the United States. Data were collected in 2017 and 2024, using Concept Mapping surveys, which integrates diverse opinions through brainstorming, sorting, and rating phases. The findings reveal that environmental sustainability has emerged as a high-importance element, while racial and economic justice continues to be perceived as the least important and the least feasible element. The results highlight the need for an integrated approach that balances short-term built environment goals with long-term equity measures.

Keywords

livability, Concept Mapping, sustainability, equity, urban planning.

Introduction

Since the introduction of the 1998 Clinton-Gore Livability Agenda, which aimed to promote sustainable development, improve quality of life, and foster economic competitiveness, the concept of livability has garnered significant attention from various organizations and communities both in the United States and internationally. Key contributors to this discourse include the American Association of Retired Persons (AARP) (Harrell et al., 2014), the U.S. Department of Housing and Urban Development (HUD) (Fairchild & Revord, 2017), the U.S. Department of Transportation (DOT) (Godavarthy et al., 2018), the U.S. Environmental Protection Agency (EPA) (Livable Communities Initiative, 2000), and the United Nations (Sheikh & van Ameijde, 2022).

Livability is an evolving concept in public health and urban planning, encompassing a place's ability to meet basic human needs, foster cultural and artistic expression, and build a sense of community (Dsouza et al., 2023). It also emphasizes social inclusivity, environmental justice, and regional equity (Badland & Pearce, 2019; Bullard, 2007). In June 2009, addressing the need for economically competitive, affordable, and sustainable communities, HUD, DOT, and EPA established the Interagency Partnership for Sustainable Communities (PSC). The PSC formulated six livability principles: offering diverse transportation options, promoting equitable, affordable housing, enhancing economic competitiveness, supporting existing communities, coordinating and leveraging federal policies and investments, and valuing communities and neighborhoods (Office of Sustainable Communities, 2010).

The concept of livability is inherently transdisciplinary, integrating knowledge from multiple fields to develop new frameworks and methods (Rosenfield, 1992). Transdisciplinary research has been applied to various components of livability, including landscape planning and

ecosystem management (Stokols, 2011), data-driven decision-making (Bibri, 2021), and other essential skills needed to promote a more livable environment (Yang et al., 2020). As Fairchild and Revord (2017, p. 3) noted, "Envisioning livable communities is easier than planning and developing them." While transdisciplinary research on livability has advanced, the physical and political advancements necessary for creating truly livable cities and communities have lagged behind. Challenges persist, including concentrated poverty (Badland & Pearce, 2019; Massey & Denton, 2011), inequitable allocation of resources (Goetz, 2000; Goetz & Wang, 2020), widening health disparities (Dankwa-Mullan et al., 2010; Singh et al., 2017; Wilson et al., 2008), gentrification (Rice et al., 2020; Wolch et al., 2014), and the legacy of racially discriminatory policies (Rothstein, 2018; Williams, 2024). Achieving a livable city and enhancing the quality of life for all requires a commitment to equitable development to address deep-rooted social and economic inequalities.

Research in urban planning (Berke & Conroy, 2000; Conroy & Wilson, 2024; Gough, 2015; Saha & Paterson, 2008), public health (Yang et al., 2020), and transportation (Appleyard et al., 2014; Frost et al., 2018) has highlighted discrepancies between theory and practice. Efforts to enhance livability, such as developing affordable housing, parks, transit systems, or economic initiatives, are part of complex systems where political, economic, environmental, and social factors interact in dynamic and often unpredictable ways (Bettencourt, 2021). Effective solutions require systematically understanding the complex social and political context (Cole et al., 2017; Connell & Kubisch, 1998; Wheeler, 2013).

Gough (2015), through an analysis of comprehensive plans in fourteen jurisdictions in the Mississippi Gulf Coast, found inherent tension between short-term livability and long-term sustainability in urban and regional planning practices. Immediate improvements to quality of

life, such as creating walkable neighborhoods and enhancing access to amenities, tend to be more easily understood and supported by local stakeholders because they address residents' current needs and desires. Conversely, long-term sustainability goals, such as reducing environmental impacts and ensuring intergenerational equity, are often considered as abstract or idealistic. These sustainability goals face challenges in gaining the necessary political and public support for effective implementation, particularly when they require significant lifestyle changes or investments with benefits that are not immediately visible.

In their seminal work, Berke and Conroy (2000) analyzed 30 comprehensive plans enacted between 1985 and 1998 from various local jurisdictions in the US. They discovered that, among the six sustainability principles identified, the plans predominantly supported principles like a livable built environment over others such as harmony with nature and equity. Furthermore, a follow-up study conducted 20 years later, which reviewed comprehensive plans passed between 2000 and 2017, indicated that while the updated plans showed some variation in how strongly they emphasized sustainability principles, these differences were not statistically significant (Conroy & Wilson, 2024). This persistent misalignment between the priorities identified by researchers and what has been incorporated into planning documents suggests a potential gap between what researchers and practitioners deem important and what they find feasible to implement in practice.

A critical gap in promoting equitable development and fostering healthy cities and communities lies in understanding what researchers and practitioners consider important and feasible for developing livable cities and how these perceptions evolve over time. Addressing this gap can explain why the theoretical principles of livability and sustainability proposed by researchers are incorporated so slowly into planning practices, and why their impact remains

difficult to detect. This study aims to (1) identify the elements and their composing statements considered essential by researchers and practitioners across various disciplines for developing livable cities, (2) understand their perspectives on the importance and feasibility of these elements and composing statements, and (3) explore how these perceptions have evolved over time. By uncovering and comparing expert perspectives over time, this research offers critical insights for planning practice, highlighting livability priorities and supporting the development of more responsive and effective urban strategies.

Methods

This study employs a Concept Mapping approach (Kane & Trochim, 2007). Unlike traditional methods that analyze comprehensive plans, this technique allows for the exploration of how priorities for developing livable cities have evolved over time and to gather detailed insights from researchers and practitioners in various relevant fields. Data collection for this project was conducted in two waves: the first took place between April 2017 and December 2017, and the second occurred between October 2024 and December 2024.

Concept Mapping, also known as structured conceptualization, creates visual representations of the collective opinions of geographically diverse groups and is widely used in public health program evaluation at local, state, and national levels (Arrington et al., 2008; Sundra et al., 2005; Trochim & McLinden, 2017), as well as in community and city planning (Mourits et al., 2021; Ta & Shankardass, 2021). It involves a multistage process to generate and organize ideas, clustering related concepts both visually and statistically (Rosas & Kane, 2012).

Concept Mapping is a suitable methodology for analyzing changes in livability priorities because it offers a structured method to capture and analyze complex information from diverse

stakeholders and disciplines (Rosas & Kane, 2012). The visual representation provided by Concept Mapping highlights relationships and trends among various elements, making it easier to understand shifts in priorities over time. Its flexibility accommodates longitudinal studies, allowing researchers to track trends and emerging priorities effectively across different periods. By engaging experts through brainstorming, sorting, and rating phases, Concept Mapping ensures that the resulting maps reflect real-world perspectives and expertise (Rosas, 2012). The combination of qualitative insights with quantitative techniques, such as multidimensional scaling and hierarchical cluster analysis, provides robust, statistically rigorous representations (Dixon, 2009). Concept Mapping is also effective for describing existing community development gaps and setting priorities for future initiatives to address these gaps (Mourits et al., 2021; Ta & Shankardass, 2021).

First Wave Survey: A Three-Phase Concept Mapping Survey (2017)

The first wave of data collection was conducted using Concept Systems® Global Max© in a three-phase survey process: (1) brainstorming, (2) sorting, and (3) rating. Experts in urban planning, public health, transportation, urban design, and parks and recreation in the United States were invited to participate. Participants were recruited through targeted outreach and professional organization mailing lists. Initial outreach focused on members of relevant organizations, researchers, academic program chairs, and authors identified through a literature review on livable and healthy cities. Targeted professional organizations included the American Planning Association (APA), the American Public Health Association (APHA), and National Recreation and Park Association (NRPA). A total of 260 practitioners and researchers were invited to participate. Additionally, invitations were distributed through the Active Living Research (ALR) mailing list at UC San Diego, which reaches between 1,300 and 1,700

recipients per distribution. Due to the survey's anonymous nature and partial distribution through the ALR mailing list, an overall response rate could not be calculated. However, the broad outreach ensured a diverse range of expertise and perspectives on the concept of livability.

In Phase 1 (Brainstorming), participants were asked to respond to the focus prompt: "*In order to develop or create livable cities and towns, we must…"* Based on a comprehensive literature review, our definition of livable cities describes them as "socially inclusive, affordable, accessible, healthy, safe, and resilient to the impacts of climate change. They feature attractive built and natural environments and offer choices and opportunities for all people, regardless of race, gender, socioeconomic status, or education, to live their lives and raise their families to their fullest potential (Yang et al., 2020)." This broad and detailed definition aimed to elicit thoughtful reflections on the general concept of livability without restricting respondents to specific disciplines. Statements collected in Phase 1 were edited for clarity and to eliminate redundancy, facilitating easier grouping in Phase 2 (Sorting). In Phase 2, participants sorted each statement into conceptual piles based on themes or meanings. In Phase 3 (Rating), participants rated each statement's perceived importance and feasibility for developing livable cities and towns on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). The complete list of the 72 statements included in Phases 2 and 3 is presented in Appendix Table A1.

Using data from the sorting phase, we employed multidimensional scaling and hierarchical cluster analyses to create multiple maps of potential statement clusters. Multidimensional scaling positioned the statements as points on a two-dimensional map based on a similarity matrix. Hierarchical cluster analysis then grouped these points into clusters representing similar concepts. A multidisciplinary team, including scholars from public health, urban planning, urban design, and transportation, selected the final set of clusters by evaluating

the various options and considering both the cluster sizes and the logical coherence of the groupings.

Second Wave Survey: A Rating Survey (2024)

The second wave survey was distributed via Qualtrics to the same 260 invitees from the 2017 survey, asking them to complete the rating phase survey questions again. This wave did not use the ALR mailing list as it was no longer actively maintained. Prior to survey distribution, we verified the validity of each invitee's email through search engines and social media platforms, updating emails for invitees who had changed professional affiliations. After excluding two deceased invitees, a total of 258 invitees were included.

Using data from the 2017 rating phase and the 2024 rating survey, we calculated the average importance and feasibility ratings for each cluster in both years. These averages were determined for the samples from each year and compared using descriptive statistics. Spearman's correlations were used to compare the importance and feasibility ratings of each cluster between 2017 and 2024. Individual statements were plotted based on their feasibility and importance, and those rated most important and feasible were considered in the "Go Zone." A multidisciplinary team synthesized and interpreted the results.

Results

Eleven Elements for Developing Livable Cities

During the Brainstorming phase of the first wave survey in 2017, 235 participants, including 107 researchers and 128 practitioners, contributed 509 unique statements (Table 1). We consolidated these statements into a refined list of 72 by merging similar ideas, making the subsequent Sorting and Rating phases more manageable. In the Sorting (Phase 2) and Rating (Phase 3) phases, 38

researchers and 15 practitioners participated. For the second wave survey in 2024, participation included 21 researchers and six practitioners (10.4% response rate).

[Table 1 Here]

According to the survey, eleven elements for developing livable cities were identified: Systemic Change; Social Services, Housing, and Education; Racial and Economic Justice; Access to Resources; Health and Livability; Built Environment and Active Living; Environmental Sustainability; Place-Making; Evidence-Based Decision Making; Strategic Planning; and Community Development and Empowerment (Figure 1). A comprehensive list of the statements comprising each cluster can be found in Appendix Table A1.

[Figure 1 Here]

Importance Ratings

Figure 2 and Table 2 (Panel A) present the importance ratings for the eleven elements from the 2017 and 2024 surveys (For statement level ratings, see Table 3). While the changes in element-level ratings are not statistically significant, there are notable statistically significant changes at the statement-level. Statements for improving the built environment and promoting active living were consistently rated as highly important for developing livable cities in both survey periods. Key statements include *promoting pedestrian-friendly development*, *providing safe and affordable opportunities for physical activity* (#22), and *preserving and increasing access to greenspaces and greenways (#62)*. Statement #62 witnessed an increase in its importance score from 4.46 to 4.81 ($p < 0.05$, two-tailed test).

[Figure 2 Here]

[Table 2 Here]

[Table 3 Here]

The perceived importance of access to resources and environmental sustainability increased significantly from 2017 to 2024. Key statements regarding access to resources include *addressing and considering the needs of individuals with disabilities (#56)*, *ensuring food security and access to healthy food systems (#68)*, and *developing mixed-income housing (#37)*. The importance score on the statement #56 increased from 4.17 to 4.70 ($p < 0.05$, two-tailed test). Regarding environmental sustainability, statements focus on *addressing environmental exposures (#57)*, *improving waste management practices (#7), investing in renewable energy sources and green infrastructure (#9)*, and *planning for climate change (#49)*. Three out of the four statements related to environmental sustainability showed a statistically significant increase in their importance scores from 2017 to 2024 ($p<0.05$, two-tailed tests).

In contrast, the importance ranking of racial and economic justice consistently remained at the bottom in both survey periods despite an increase in the absolute score. Statements in this area include *employing racial equity frameworks to address equity and inclusion (#29)*, *providing reparations to populations affected by injustice (#42)*, *making homeownership attainable across income groups (#13)*, *enforcing a living wage (#24)*, and *creating equal economic opportunities for residents (#36)*. Five out of the eight statements related to racial and economic justice demonstrated a statistically significant increase in their importance scores from 2017 to 2024 ($p<0.05$, two-tailed tests). However, due to the relatively small magnitudes of these increases, Racial and economic justice continues to be ranked at the bottom compared to other elements.

Feasibility Ratings

Figure 3 and Table 2 (Panel B) illustrate the feasibility ratings from the 2017 and 2024 surveys. Although none of the changes in element-level feasibility ratings over time were statistically significant, there was a general decline in the average feasibility scores across most elements. Specifically, the systemic change element and the racial and economic justice element have consistently been ranked as the least feasible elements in developing livable cities. Their feasibility scores declined, with systemic change decreasing from 3.6 to 3.4 and racial and economic justice dropping from 3.4 to 3.1.

When looking at changes at the statement level, unlike the importance ratings, where some statements experienced statistically significant changes, only one statement—*developing and using scientifically tested programs and practices* (#44)—showed a statistically significant decline in feasibility scores. This, again, suggests a relatively stable perception regarding the feasibility of implementing livability elements among researchers and practitioners from 2017 to 2024.

[Figure 3 Here]

Element Importance vs. Feasibility

When comparing the importance and feasibility ratings in both 2017 and 2024 (Appendix Figures A1 and A2), we noticed two key trends: (1) the average element-level feasibility scores were consistently lower than the average importance scores, and (2) the gap between element importance and feasibility has increased over time. For instance, the difference between the average importance and feasibility scores for the racial and economic justice element grew from

0.43 in 2017 to 1.10 in 2024. Similarly, the gap for the environmental sustainability element widened from 0.31 in 2017 to 0.70 in 2024.

Comparison Across Disciplines

We also compared the importance and feasibility ratings across disciplines (Appendix Table A2), where we observed common patterns across the fields of urban planning, public health, and transportation. For example, the environmental sustainability element saw the largest increase in importance scores between 2017 and 2024 across disciplines: public health increased from 4.10 to 4.55 (+0.45), transportation increased from 2.17 to 4.44 (+2.27), and urban planning increased from 3.59 to 4.53 (+0.95). The environmental sustainability element also saw the largest increase in feasibility scores in both transportation and urban planning fields. Conversely, the racial and economic justice element has consistently been rated as the least feasible among both public health and urban planning experts.

Go-Zone

Go-Zone graphs were utilized to identify statements highly ranked in importance and feasibility in 2017 and 2024 (Figure 4 and Appendix Table A1). Go-Zones are bivariate graphs divided into four quadrants by the median scores for importance and feasibility. The upper right quadrant, commonly referred to as the Green Zone, contained statements that scored above the median for both importance and feasibility. These statements are considered priority areas for planning and policy intervention development. Examples of statements in the Green Zone (high importance and high feasibility) include *promoting pedestrian-friendly development (#6)* and *increasing access to greenspaces or greenways (#62)*. Conversely, *providing reparations to populations*

affected by injustice (#42) consistently received the lowest ratings for importance and feasibility in both survey years (White Zone).

[Figure 4 Here]

Discussion

Through two waves of Concept Mapping surveys, this study collected perspectives on key elements for developing livable cities from professionals in urban planning, public health, transportation, parks and recreation, and urban design. The results highlight the tension between more readily implementable livability elements and more complex, systemic challenges in the United States. From 2017 to 2024, statements such as *addressing environmental exposures* (#57) and *planning for climate change* (#49) have notably gained importance, reflecting a growing awareness of climate change's urgency. Conversely, statements that address racial and economic justice, such as *providing reparations to population affected by injustice* (#42) and *making homeownership attainable across income groups* (#13), continue to be perceived as the least feasible. Participants tend to prioritize livability elements that yield visible, near-term benefits over those requiring substantial policy shifts, resource redistributions, or changes in social attitudes. It's important to consider that the impact of external contextual factors, such as global health crises caused by COVID-19 and associated economic downturns (Dorn et al., 2020; Perry et al., 2021), growing attention to climate change (Ballew et al., 2019; Shi & Moser, 2021), and increasing political polarization (Benson, 2024; Flores et al., 2022), may have altered participants' assessments of importance and feasibility. These factors underscore the necessity for a balanced approach that combines the implementation of immediate, impactful projects with long-term strategies to address systemic equity challenges.

Rising Importance of Environmental Sustainability

The perceived importance of environmental sustainability significantly increased in recent years. Three key statements have shown statistically significant increases in importance ratings ($p<0.05$, two-tailed test): *addressing environmental exposures* (#57, importance score increased from 3.83 to 4.65); *improving waste management practices* (#7, importance score increased from 3.68 to 4.19); and *planning for climate* change (#49, importance score increased from 4.10 to 4.70). Statement #49 experienced the most dramatic shift among these. Initially considered low importance and low feasibility (White Zone), it moved into the Green Zone over time, reflecting its growing recognition as a critical component of livable city development. This transition emphasizes that proactive climate planning is now recognized as a crucial and achievable aspect of sustainable urban management (Fallmann & Emeis, 2020). Better city planning and design can reduce climate impacts and improve health by promoting active transport, increasing green spaces, reducing car usage, and reducing fossil fuel dependency (Nieuwenhuijsen, 2024). This shift indicates that researchers and practitioners across various disciplines increasingly recognize the long-term benefits of integrating environmental sustainability into city planning policies and practices (Crane et al., 2021).

While we see statistically significant increases in the importance ratings of three environmental sustainability statements (#7, #49, #57), their feasibility ratings remained relatively constant. This suggests that while the importance of these sustainability goals is increasingly recognized, the perceived practicality of achieving them remains a challenge. This finding helps explain the findings of Conroy and Wilson (2024), who noted that despite growing attention to climate change and resilience, planning documents published between 2000 and

2017 consistently portrayed lower scores for harmony with nature compared to the original Berke and Conroy (2000) study.

Persistent Challenges in Addressing Racial and Economic Inequalities

Statements concerning racial and economic justice—especially those addressing reparations (#13) and attainable homeownership (#42)—consistently receive low feasibility ratings. This indicates skepticism about the potential for systemic transformation. Additionally, the statement on *providing reparations to populations affected by injustice* (#42) was rated as the least important (3.02 and 3.85) and least feasible (2.64 and 2.67) in both survey waves. This suggests that achieving on-the-ground progress in these areas may require significant efforts to change perceptions of researchers and practitioners in urban planning, public health, and transportation.

While "Go-Zone" strategies—such as *promoting pedestrian-friendly development (#6)* and *creating more green spaces (#62)*—are rated highly for their immediate benefits and feasibility, focusing solely on these areas is insufficient for addressing more profound urban inequalities. While strategies aiming to improve livability by enhancing city design and functionality are beneficial, they cannot address the systemic factors contributing to socioeconomic and racial disparities. On the contrary, studies have demonstrated that strategies promoting environmental sustainability can unintentionally exacerbate racial and economic inequalities (Agyeman et al., 2016; Anguelovski et al., 2022; Cole et al., 2017; Coolsaet et al., 2024; Jelks et al., 2021). Green infrastructure projects, such as rain gardens, parks, and greenways, can lead to the displacement of lower-income and non-White residents, preventing them from benefiting from these improvements—a phenomenon known as green gentrification (Anguelovski et al., 2019; Rice et al., 2020). Similarly, the transition to green energy can result in 'green grabbing,' where the appropriation of land and resources by governments and

corporations for environmental purposes disproportionately affects socioeconomically vulnerable populations (Fairhead et al., 2012; Martin et al., 2020).

The increased importance ratings of environmental sustainability statements (#7, #49, #57), contrasted with the persistently low feasibility ratings of racial and economic justice statements (#13, #42), may reflect what researchers and practitioners have experienced on the ground. While there has been a notable rise in environmental justice movements in recent years, these movements often face challenges in gaining traction within official legal and policy frameworks (Harrison, 2019; Pearse et al., 2025). Due to existing institutional and cultural prejudices, the concept of environmental justice often struggles to sway public opinion, influence election outcomes, or impact government decisions (Carrillo & Pellow, 2021). These challenges can be particularly pronounced when proposed actions require significant changes to daily lifestyles or investments whose benefits are not immediately visible to the general public (Gough, 2015).

On a positive note, some statements related to addressing racial and economic equity are embedded within other clusters, such as *planning for all age groups* (#23), *developing mixed-income housing* (#37), and *addressing the needs of individuals with disabilities* (#56). The perceived importance and feasibility of these statements have increased from 2017 to 2024. These statements represent incremental steps toward mitigating racial and economic inequities and could potentially be leveraged to foster broader systemic change.

Limitations and Recommendations for Future Research

This study presents some limitations that merit attention. First, participant selection likely included individuals with an inherent interest in research, which may introduce bias. Second, the

exclusion of the ALR mailing list in the second wave survey, the attrition of survey participants (dropping from 53 in the first wave, phase 2 and 3, to 27 participants in the second wave), and changes in participant composition over time (from 54% practitioners in the first wave, phase 1, to 22% practitioners in the second wave) could affect the robustness of the findings. Third, participants were recruited from specific professional organizations, which may not capture the perspectives of marginalized and vulnerable communities. Additionally, stakeholder groups were not equally represented, with the majority of participants coming from the field of public health, potentially skewing assessments of priority and feasibility. Another limitation is that all participants were based in the United States, reflecting a single regional and cultural perspective. Consequently, the findings may not fully capture livability's diverse challenges, priorities, and opportunities in global contexts.

Despite these limitations, the study integrates valuable insights from multiple fields into the evolving priorities for developing livable cities, highlighting areas of significant progress and persistent challenges. Future research should strive to ensure a more diverse and representative sample of participants by employing stratified sampling techniques that encompass a wide range of stakeholders. Active efforts should be made to engage communities and organizations that are frequently underrepresented. Methods such as collaborating with community-based organizations, utilizing snowball sampling to reach diverse groups, and conducting outreach in multiple languages will help to achieve a more inclusive participant pool. Additionally, future studies should consider including participants from different countries and regions to enhance the generalizability of the results. Moreover, future research should delve deeper into how global crises—such as the COVID-19 pandemic and climate emergencies—impact urban development priorities.

Conclusion

This study examined the evolution of elements deemed essential for developing livable cities by researchers and practitioners in urban planning, public health, and related fields in the United States. Utilizing Concept Mapping surveys, the findings reveal a significant increase in the perceived importance of environmental sustainability statements from 2017 to 2024. However, the perceived feasibility of statements addressing racial and economic justice remains persistently low.

This discrepancy is alarming because creating livable cities requires a comprehensive approach that not only includes implementation of programs with short-term benefits but also actions for structural changes to tackle long-standing racial and income-based inequalities. For cities to be inclusive and livable for all residents, policies must balance *promoting pedestrian-friendly development* and *increasing access to greenspaces or greenways* with considerations of *addressing economic and racial segregation and providing reparations to populations affected by past injustices*.

To better address racial and economic justice, policymakers should prioritize action-oriented research that underscores the long-term benefits of equity initiatives. Policies addressing systemic barriers—such as increased public investments in affordable housing for low-income households and improved access to public transportation for marginalized communities—should be prioritized to elevate the perceived importance and feasibility of racial and economic justice, while simultaneously advancing environmental sustainability goals.

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Table 1. Participants' characteristics from the 2017 and the 2024 surveys.

	First Wave Survey (2017)		Second Wave Survey (2024) (n=27) n (%)
	Phase 1 (n=235), n (%)	**Phases 2 & 3 (n=53),** n (%)	
Respondent Type			
Researcher	107 (46)	38 (72)	21 (78)
Practitioner	128 (54)	15 (28)	6 (22)
Work Setting			
Urban	165 (70)	33 (72)	23 (85)
Suburban or Rural	70 (30)	10 (22)	4 (15)
Did not answer		3 (6)	
Field of Research / Practice			
Public Health	119 (51)	36 (68)	10 (37)
Transportation	54 (23)	3 (6)	4 (14)
Urban Planning	26 (11)	5 (9)	9 (33)
Parks and Recreation	19 (8)	4 (8)	2 (7)
Urban Design	17 (7)	5 (9)	1 (4)
Other			1 (4)

Note: Percentages were rounded for clarity. The participant categorized as 'other' is from the field of Geography.

Table 2. Element-level score change, 2017-2024.

Element/Cluster	Panel A: Importance Score			Panel B: Feasibility Score		
	2017	2024	Change	2017	2024	Change
Access to Resources	4.24	4.65	0.41	3.83	3.89	0.06
Built Environment & Active Living	4.42	4.63	0.22	4.04	3.92	-0.12
Community Development & Empowerment	3.96	4.24	0.28	3.74	3.69	-0.05
Environmental Sustainability	3.96	4.54	0.58	3.65	3.84	0.19
Evidence-Based Decision Making	4.18	4.48	0.31	4.12	3.98	-0.14
Health & Livability	3.97	4.33	0.36	3.88	3.86	-0.02
Place-Making	4.24	4.53	0.29	3.97	3.83	-0.13
Racial & Economic Justice	3.75	4.23	0.48	3.32	3.13	-0.19
Social Services, Housing, & Education	3.98	4.42	0.44	3.57	3.56	-0.01
Strategic Planning	4.09	4.4	0.31	3.98	3.96	-0.02
Systemic Change	3.89	4.24	0.34	3.55	3.37	-0.18

Table 3. Statement-level score change, 2017-2024.

Element/Cluster	ID	Statement	Importance			Feasibility		
			2017	2024	Change	2017	2024	Change
Access to Resources	2	Improve and ensure equitable access to parks and transit.	4.51	4.72	0.21	4.32	4.08	-0.24
	23	Plan for all life segments (enrich children/youth development and allow aging in place).	4.3	4.76	0.46*	4.06	4.2	0.14
	37	Develop mixed-income housing and create diversity in the types of available housing.	4.1	4.65	0.56*	3.55	3.54	-0.01
	51	Improve healthcare access.	4.08	4.46	0.38	3.38	3.46	0.08
	56	Address and consider the needs of the physically disabled (and other groups using a space).	4.17	4.7	0.53*	3.96	4.26	0.3
	68	Address and ensure food security, food access, and healthy food systems.	4.25	4.58	0.33	3.71	3.81	0.1
Built Environment & Active Living	6	Promote development that is friendly to pedestrians (walkability).	4.64	4.85	0.21	4.3	4.26	-0.04
	12	Provide safe, affordable opportunities for physical activity.	4.55	4.65	0.11	4.19	4.23	0.04
	22	Better maintain public infrastructure and built environment features.	4.38	4.74	0.36*	3.96	4	0.04
	33	Develop neighborhoods that provide easy access to daily needs (complete or mixed-use neighborhoods).	4.49	4.69	0.2	4.08	3.69	-0.38
	48	Improve transportation options and walkability in rural communities.	4.12	4.35	0.23	3.51	3.38	-0.12
	58	Move toward affordable, accessible transportation development that encourages physical activity (active transportation) and allows for multiple types of transportation (multi-modal transportation).	4.58	4.62	0.04	4.04	3.73	-0.31
	62	Preserve, increase, and ensure access to greenspaces or greenways.	4.46	4.81	0.35*	4.08	4.19	0.12
	63	Construct buildings with healthy interiors as well as exteriors.	4.1	4.44	0.35	3.92	3.67	-0.26
	66	Focus on features that promote healthy behaviors (ex. Parks, sidewalks, stairs).	4.46	4.56	0.1	4.26	4.12	-0.14
Community Development & Empowerment	15	Support and invest in local/grassroots residents and leaders.	3.96	4.4	0.44*	3.75	4	0.25
	16	Build political will and efficacy for livable development	4.15	4.48	0.33	3.77	3.41	-0.37
	21	Develop accessible systems for reaching local government (ex. 311 lines).	3.47	3.84	0.37	3.79	3.68	-0.11
	26	Involve the educational community in community development.	3.66	4.27	0.61*	3.57	3.96	0.4

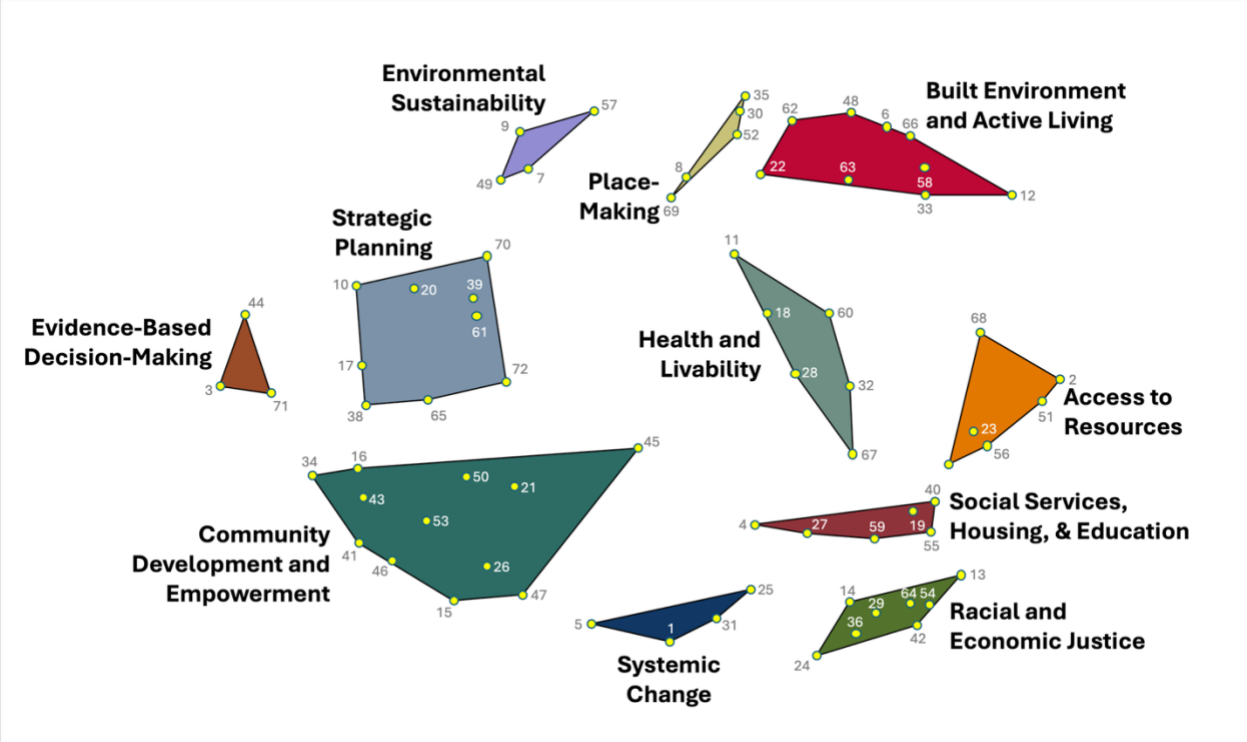
	34	Explore financing structures that use development and real estate to fund livable cities.	4.09	3.96	-0.13	3.77	3.5	-0.27
	41	Focus on economic development and investment.	3.85	4.27	0.42*	3.8	3.96	0.16
	43	Form interdisciplinary partnerships between professionals and community members/stakeholders.	4.12	4.58	0.46*	4.06	4.08	0.02
	45	Change the culture of development to focus on common good rather than personal gain.	3.94	4.46	0.52*	3.25	3.19	-0.05
	46	Promote and support entrepreneurship.	3.63	3.93	0.29	3.68	3.74	0.06
	47	Foster ideas of citizenship focused on responsibilities in addition to rights.	3.9	3.96	0.05	3.43	3.21	-0.23
	50	Encourage community at multiple levels, ranging from the neighborhood to the regional.	4.08	4.15	0.07	3.81	3.69	-0.12
	53	Collaborate across public sectors/departments.	4.65	4.63	-0.02	4.23	3.85	-0.38
Environmental Sustainability	7	Improve waste management practices.	3.68	4.19	0.51*	3.74	3.81	0.08
	9	Invest in renewable energy sources, sustainable practices, and green infrastructure.	4.23	4.62	0.38	3.68	3.92	0.24
	49	Plan for climate change.	4.1	4.7	0.61*	3.43	3.78	0.34
	57	Address environmental exposures (ex. Smoke).	3.83	4.65	0.83*	3.77	3.85	0.08
Evidence-Based Decision Making	3	Collect and provide usable data at the local level for decision-making.	4.21	4.65	0.45*	4.09	4	-0.09
	44	Develop and use scientifically-tested programs/practices (evidence-based practice).	4.15	4.26	0.11	4.1	3.59	-0.51*
	71	Use pilot projects and demonstrations to gain public support.	4.17	4.54	0.37*	4.17	4.35	0.18
Health & Livability	11	Redefine good urbanism to incorporate livability.	3.72	4.31	0.59*	4.06	3.92	-0.14
	18	Address experience and perceived public safety.	4.02	4.44	0.42*	3.89	3.84	-0.05
	28	Invest in and incorporate the arts.	3.77	4.12	0.35	3.79	4.15	0.36
	32	Focus on the conditions of life that impact health (social determinants of health - ex. Education, Poverty, Social Support).	4.28	4.59	0.31	3.91	3.67	-0.24
	60	Incorporate health considerations into decision-making in all policy areas ("Health in All Policies" approach).	4.23	4.48	0.25	3.92	3.81	-0.11
	67	Emphasize multi-generational interactions.	3.79	4.04	0.25	3.74	3.78	0.04
Place-Making	8	Create public spaces and events for community building and neighborhood pride (place-making).	4.21	4.67	0.46*	4.25	4.19	-0.06
	30	Pay attention to smaller (microscale) features like signs, water fountains, and vegetation.	4	4.27	0.27	4.27	4.12	-0.15
	35	Rethink and reduce parking.	4.13	4.3	0.16	3.6	3.37	-0.23

	52	Change the culture of transportation planning to be people-centric rather than car-centric.	4.58	4.85	0.27*	3.53	3.5	-0.03
	69	Invest in existing spaces when developing (redevelopment) or planning new construction.	4.29	4.59	0.3	4.19	4	-0.19
Racial & Economic Justice	13	Make homeownership attainable across income groups.	3.53	3.93	0.4	3.02	2.85	-0.17
	14	Consider racial, economic, and social equity when making development decisions.	4.13	4.56	0.42*	3.98	3.63	-0.35
	24	Enforce a wage high enough to maintain a normal standard of living (living wage).	3.96	4.42	0.46*	3.13	3.08	-0.06
	29	Use racial equity frameworks, racial equity lens, etc. to address equity and inclusion.	3.83	4.07	0.24	3.79	3.3	-0.5
	36	Create equal economic opportunity for residents.	3.79	4.42	0.63*	3.21	3.12	-0.09
	42	Provide reparations to populations affected by injustice.	3.02	3.85	0.83*	2.64	2.67	0.03
	54	Address economic and racial/ethnic segregation.	4.16	4.5	0.34	3.6	3.38	-0.21
	64	Prioritize racial diversity in neighborhoods.	3.58	4.11	0.53*	3.19	3.04	-0.15
Social Services, Housing, & Education	4	Develop accessible systems for reaching social service organizations (ex. 211 lines).	3.66	4.04	0.38	3.87	3.88	0.02
	19	Focus on providing high-quality education opportunities and options, including schools, for all children.	4.32	4.65	0.33	3.83	3.65	-0.18
	27	Understand gentrification, displacement, and how to prevent or remedy them.	3.81	4.41	0.60*	3.37	3.52	0.15
	40	Ensure availability of affordable housing.	4.2	4.52	0.32	3.32	3.33	0.01
	55	Focus on the issue of homelessness, housing and caring for the unhoused population.	3.94	4.5	0.56*	3.52	3.38	-0.13
	59	Focus on providing sufficient social services.	3.96	4.42	0.46*	3.51	3.58	0.07
Strategic Planning	10	Utilize Health Impact Assessments before implementation.	3.77	4.12	0.35	3.75	3.72	-0.03
	17	Conduct asset-based community development (map resources, organize the community, and use existing strengths and potentials to move forward)	4.21	4.38	0.18	4.08	4.04	-0.04
	20	Create long-range strategic plans to guide development	4.04	4.54	0.50*	4.13	4.08	-0.06
	38	Reach out to and educate others about livability in cities.	3.69	4.2	0.51*	3.94	4.08	0.14
	39	Customize solutions according to the specific context of a place.	4.4	4.54	0.13	4.09	3.88	-0.21
	61	Identify projects and programs with multiple benefits.	4.38	4.54	0.15	4.17	4.19	0.02
	65	Give local governments flexibility to experiment.	4.12	4.22	0.11	3.83	3.56	-0.27
	70	Build resiliency for emergency events.	3.75	4.5	0.75*	3.74	3.77	0.03

	72	Build an economic case for livable development	4.4	4.54	0.13	4.09	4.31	0.21
Systemic Change	1	Be inclusive and intentional about involving all members of the community in the planning process.	4.38	4.65	0.28	4.11	3.77	-0.34
	5	Empower individuals, promoting efficacy, responsibility, and determination.	3.87	4.08	0.21	3.62	3.35	-0.28
	25	Reform the criminal justice system.	3.47	4.04	0.57*	2.98	2.96	-0.02
	31	Provide a diversity of jobs and job training.	3.86	4.19	0.32	3.49	3.41	-0.08

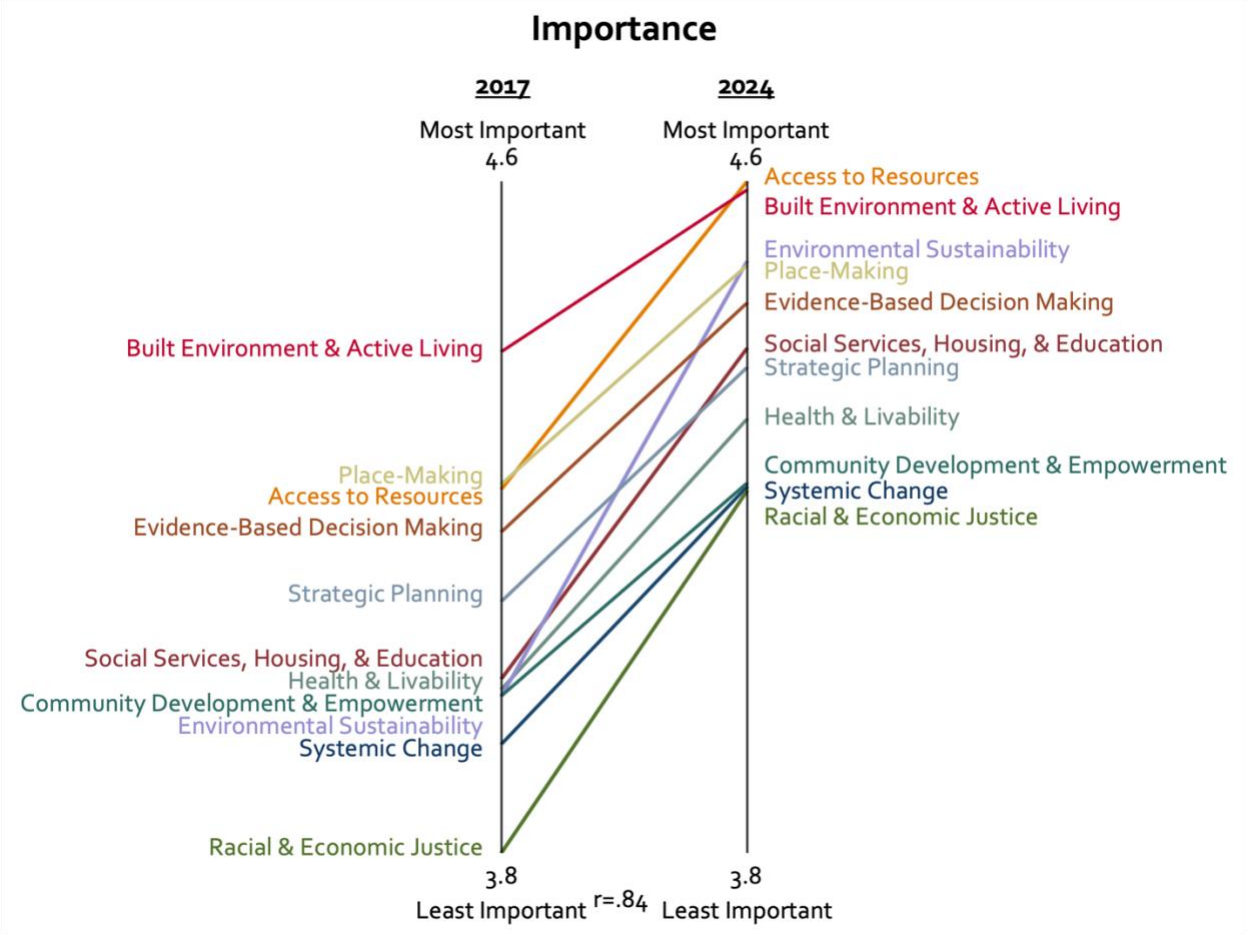
Note: * Change in score is statistically significant at the $p<0.05$ level (two-tailed test).

Figure 1. Clusters of statements for developing livable cities.



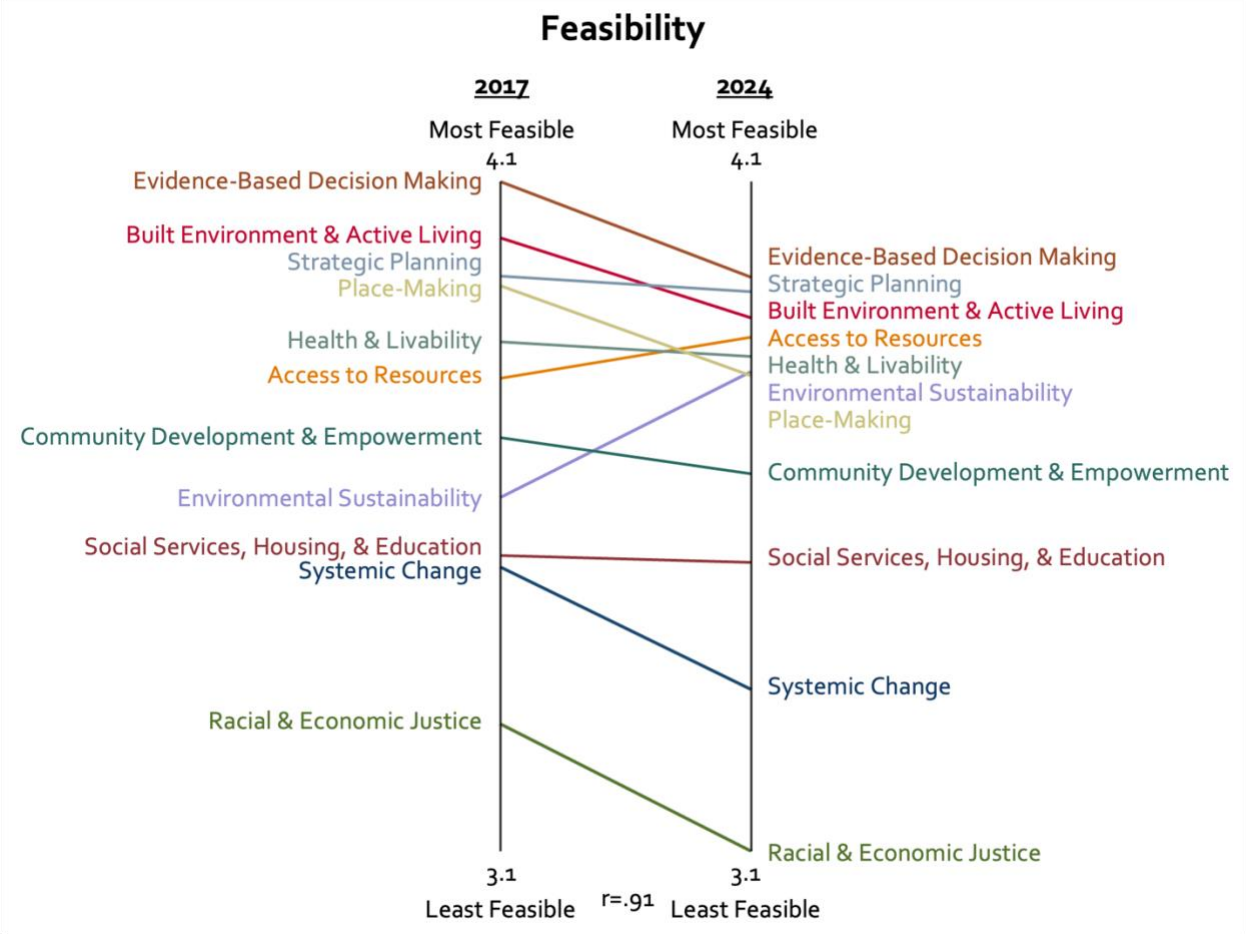
Notes: The clustering is based on data from the sorting phase of the 2017 survey. In the Cluster Map, each dot represents a statement contributed by participants. Each statement is identified by a unique statement ID. The proximity of these statements to one another is calculated based on how often they were categorized together. The complete list of statements, along with their IDs and corresponding element categorizations, is presented in Table 3.

Figure 2. Comparison of importance ratings for elements in developing livable cities, 2017 vs. 2024.



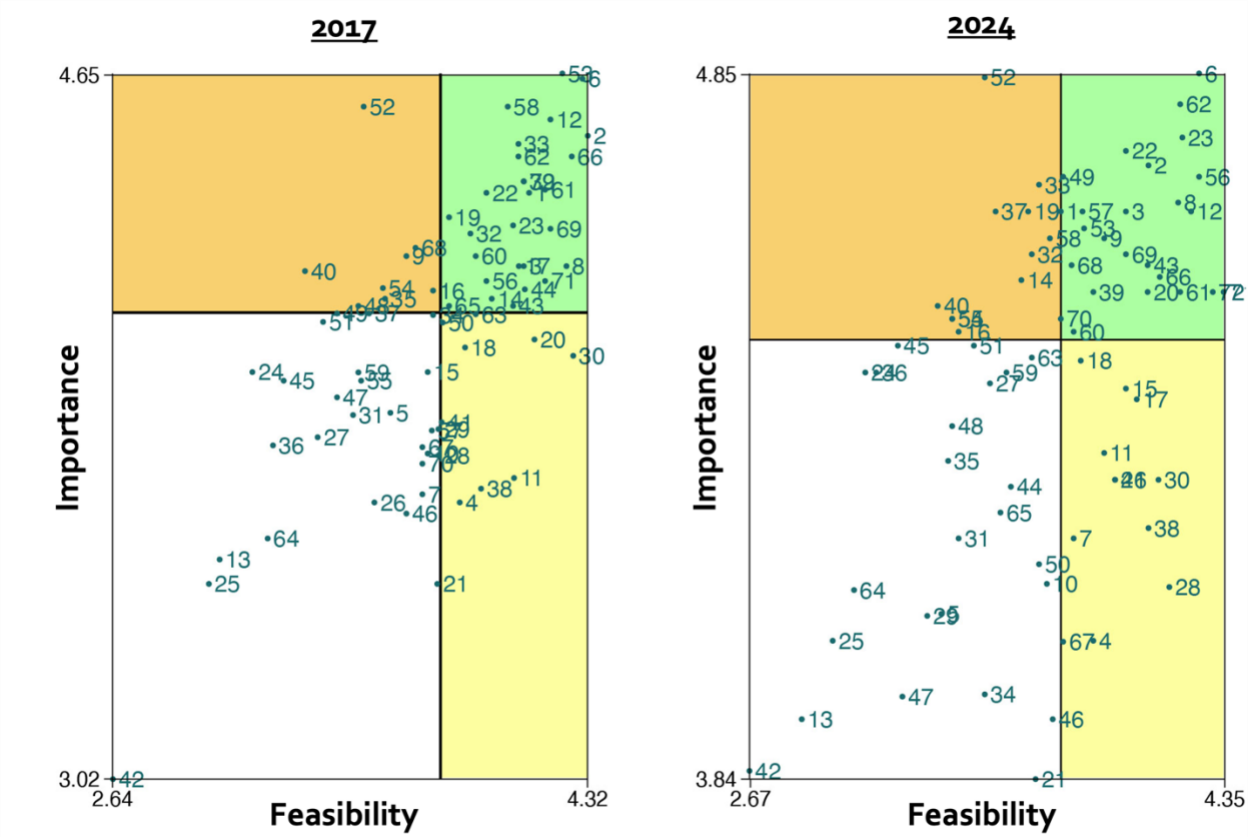
Notes: The figure shows the changes in element-level scores over time. For the average score of each element, see Table 2.

Figure 3. Comparison of feasibility ratings for elements in developing livable cities, 2017 vs. 2024.



Notes: The figure shows the changes in element-level scores over time. For the average score of each element, see Table 2.

Figure 4. Go-Zone Graphs.



Notes: Go-zones categorize statements by evaluating both their importance and feasibility simultaneously. Statements in the Green Zone (upper right quadrant) are rated high in both criteria. Statements in the Orange Zone (upper left quadrant) are rated high in importance but low in feasibility. Statements in the Yellow Zone (lower right quadrant) are rated low in importance but high in feasibility. Statements in the White Zone (lower left quadrant) are rated low in both criteria. Table A1 lists the statements corresponding to each number.