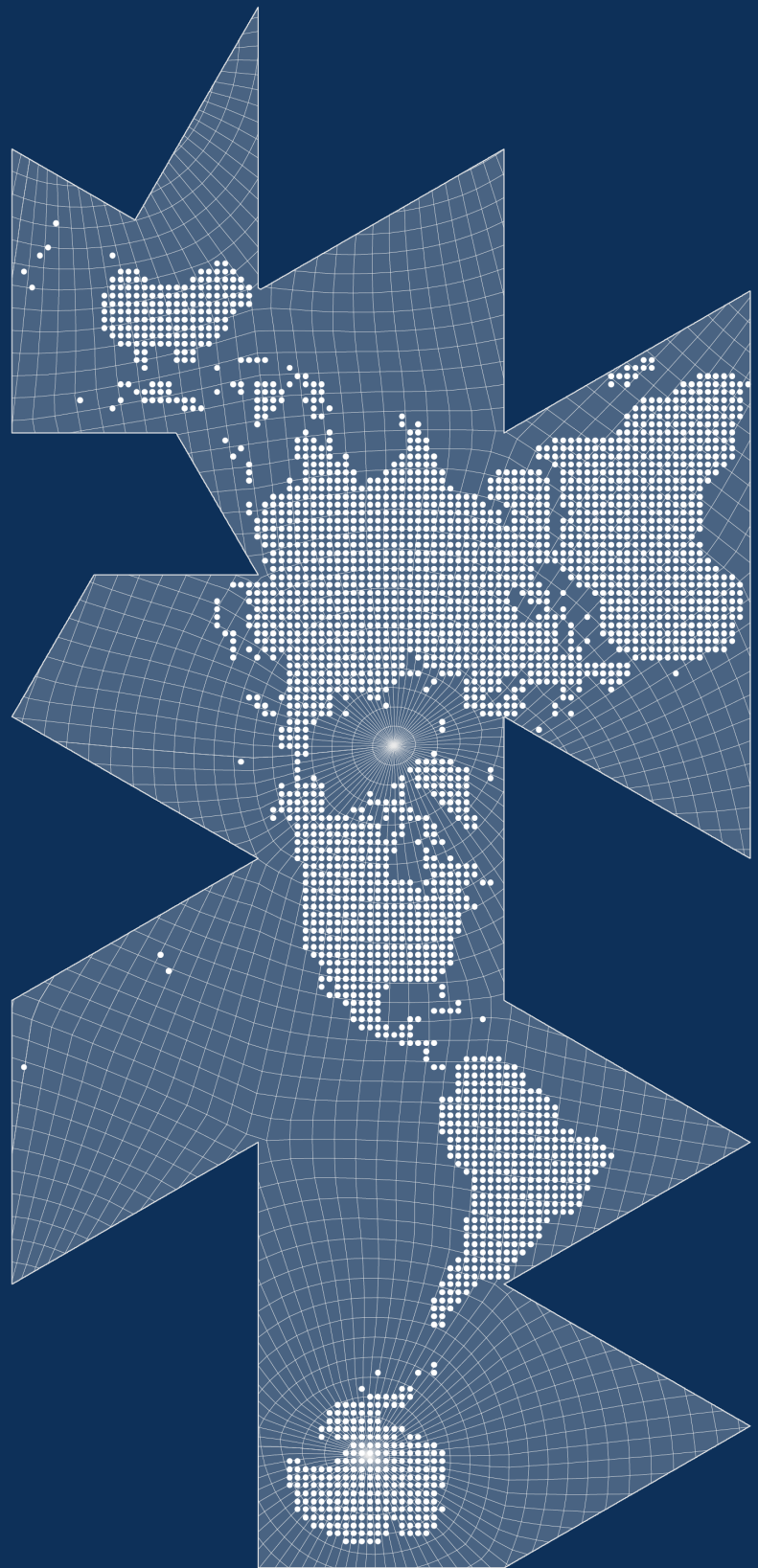


DESIGN CLIMATE SURVEY

The gap between professional aspirations and the reality of work in addressing climate change



Final Report

April 6th, 2022

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International Landscape Collaborative [ilc]

The ILC is a group of emerging scholars and practitioners who promote integrated landscape approaches and nature-based solutions as a way to address environmental and social challenges in a changing climate.

Acknowledgments

This initiative was made possible by the generous support of Sasaki, the many public platforms and individuals who circulated this survey, reaching a total of 49 countries worldwide. A special thanks goes to Ken Goulding at Sasaki's strategies team, who provided us with the necessary tools to visualize and share the survey data.

Contents

Introduction	4
Overview & Methodology	6
Survey Results	8
Key Takeaways	8
[1] Position on Climate Impacts	10
[2] Role and Advocacy	16
[3] Work Environment	24
[4] Collaboration	28
Discussion: Considering a Course of Action	38
Explore the Data	44
Appendix A: Survey Questions	46
Appendix B: Survey Results	49

Introduction

There is no shortage of anxiety today. Nearly two years of a global pandemic has disrupted our lives and working situations and yet, climate change is looming larger than ever before. In 2021 alone, the incidence and scope of wildfires along the West Coast of the US and Canada have made records—[having burnt](#) through more than three times the area of a typical year for wildfire. The same year, record floods have devastated vast areas in [Germany](#) and [China](#). The landfall of [Hurricane Henri](#) and [Hurricane Ida](#) exposed the climate vulnerabilities of the Northeastern U.S., and the most severe drought of the Southwest has worsened to a degree in which authorities have declared a [water shortage on the Colorado River](#) for the first time in history. If these headlines aren't convincing enough, the [6th IPCC report](#) paints a more dire future for humanity with more frequent and intense precipitation and flooding, longer droughts, and more intense heat waves in the coming three decades as global temperatures continue to rise.

Importantly, when it comes to our professional anxieties—in our work as design and planning professionals—we should not resign ourselves to thinking that these are simply matters of our own individual career choices (i.e. not individual anxieties). If the past few years have anything to show us—we (the collective we!) are all in this together—or at least, it is evident that it will take collective action to address the challenges that lie before us. The 6th IPCC report offers a glimpse of hope, stating that humanity still has 10 to 20 years to change course and stabilize global temperatures. However, the proceedings from UN Climate Change Conference in Glasgow ([COP26](#)) reveal a political inertia in addressing systemic injustices and transforming modes of production, distribution, and consumption. Impacts of climate change will likely only exacerbate in the coming decades, opening up a range of issues that designers, planners, and allied disciplines have to confront. Thus, it seems appropriate that we critically reflect on our disciplinary status, if only to take stock of how our aspirations are reflected in the reality of our work in addressing climate change. To this end, the International Landscape Collaborative (ILC) developed the Climate Design Survey to shed light on how design and planning professionals feel about their work and the global concerns of climate change. **If anything, feelings of anxiety should awaken us to the need for reflection and change, with the hope that this is simply a stepping stone towards broader and more frank dialogue in which our collective anxiety can be turned into collective action.**



Fortunately, the planning and design professions have come a long way in taking a more outspoken position on addressing climate change. Prior to the COVID-19 pandemic, several major American professional organizations issued statements to promote action on climate change—the Landscape Architecture Foundation (LAF) inaugurated a New Landscape Declaration while the American Society of Landscape Architects (ASLA) and the American Institute of Architects (AIA) endorsed the Green New Deal resolution. Likewise, the American Planning Association (APA) has taken positions on climate change, even issued a statement on the US withdrawal from the Paris agreement. The American Society of Civil Engineers (ASCE) had also released a list of policies addressing climate change. More recently, professional groups, academia, and grassroots organizations have sought to influence legislators to take steps toward addressing climate change such as the Infrastructure Investment and Jobs Act ([H.R. 3684](#)) that passed in the U.S. legislature in late 2021. This political commitment is a first step toward shifting the Overton window in addressing climate change more broadly and providing planning and design professionals with concrete, implementable projects.

These latest events are a call for collective action and an opportunity for planning and design professionals to reflect on the realities of their work and how it measures up to their aspirations to meaningfully address climate change. The goal of the Design Climate Survey, and the findings outlined in this report, is to highlight professional gaps between aspiration and reality of a wide array of planning and design professionals from across the US and around the world.

Overview & Methodology

From Spring 2020 to Fall 2021 responses were collected from a total of 450 respondents across a variety of age groups, fields, places of work, ranges of experience, and places from around the world.

This survey report strategically groups planning and design professionals for a better reading into the survey data and helps us summarize emerging trends - this includes grouping by profession as well as sector. Professional groupings represented in the survey include: 27% for architecture and/or interior design, 41% in landscape architecture, ecology, and/or civil engineering, 20% in urban design and/or planning, and 12% "other" professions such as real estate, sustainability consulting, climate adaptation, and other areas of design and engineering. While 44% of all responses were captured in 41 countries across South America, Europe, Africa and Asia, the majority (56%) is based in the United States.

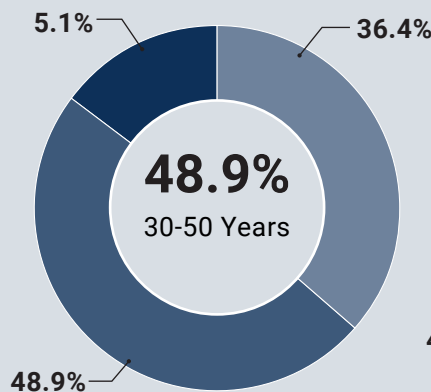
The following sections elaborate how respondents feel about their work and climate change through each of the survey questions. While there are a few interesting comparisons to be made between fields and sectors, little substantial difference was found across age groups, years of experience, and whether respondents were based in the US or non-US.

2019
Development
& Testing

2020-2021
Survey Duration

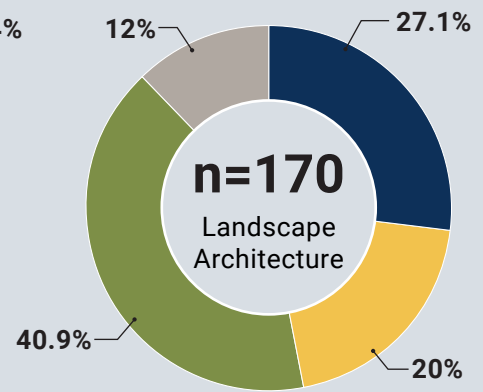
n=450
Total Respondents Who
Completed Surveys

49
Participating
Countries



Age Distribution

- 20-30 years (n=164)
- 30-50 years (n=220)
- 50+ years (n=66)

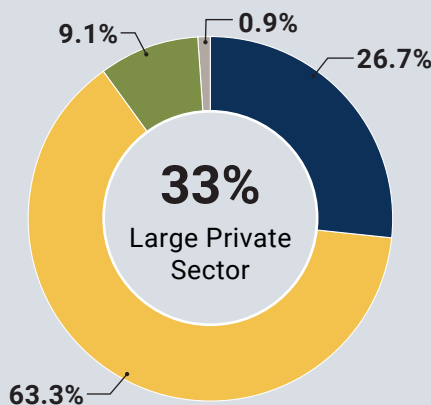


Field Group

- Architecture and Interior Design (n=122)
- Urban Design and Planning (n=90)
- Landscape Architecture, Ecology and Civil (n=184)
- Other (n=54)

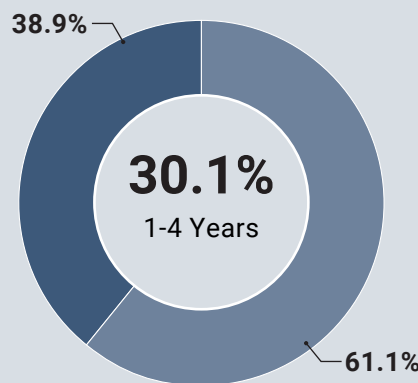
“The **Design Climate Survey** was not conceived to statistically evaluate a representative sample of the design and planning professions at large, rather it **is a tool to capture our professional positions and aspirations in the context of climate change.**”

Figures 1-5. Survey Statistics including: Age Distribution, Disciplinary Group, Work Experience, and Geography of Practice.



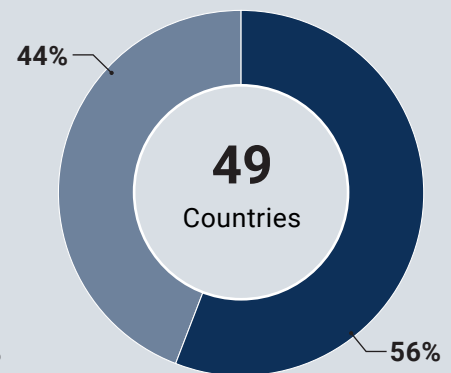
Place of Work/ Study

- Academia (n=120)
- Private Sector (n=285)
 - Small Private (n=93)
 - Medium Private (n=45)
 - Large Private (n=147)
- Public & Non-Profit (n=41)
- Unknown (n=4)



Work Experience

- Under 10 Years (n=275)
 - >1 year (n=34)
 - 1 to 4 years (n=135)
 - 5 to 9 (n=105)
- Over 10 Years (175)
 - 10 to 15 years (n=61)
 - 15+ years (n=114)



Geography of Practice

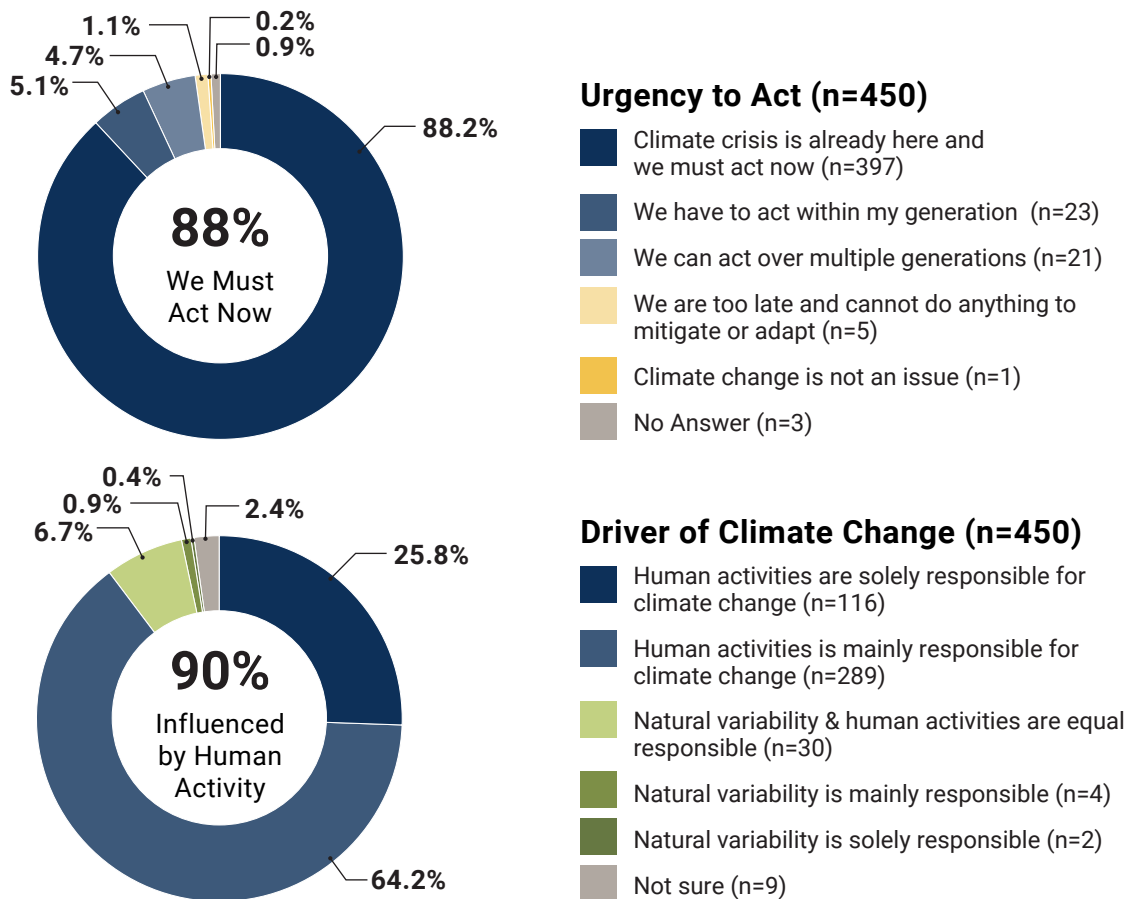
- United States (n=252)
- International (n=198)
 - Africa (n=48)
 - Asia and Oceania (n=77)
 - Europe (n=80)
 - North America (n=311)
 - South America (n=16)

Survey Results

Key Takeaways

In early 2020, the ILC invited the international planning and design community to participate in the Design Climate Survey, and published the [preliminary results](#) highlighting insights from the pilot survey at [Sasaki](#), a Boston-based planning and design firm. The survey sought to understand how planning and design professionals across the U.S. and the world perceive their role in addressing the threats of climate change and how they aspire to build an environmentally just future. After more than a year of collecting data, the final survey results establish a foundation upon which the design and planning professions might examine their collective aspirations in the climate fight. These aspirations include exploring new models of practice, expanding their value proposition to new clients, cultivating meaningful collaborations, and ensuring their field has a seat at the table with decision makers to take action. Before diving into detailed survey results, the following four key takeaways summarize the main findings on the opposite page.

Figures 6-7. Urgency to Act and Driver of Climate Change



1

Position on Climate Impacts

Survey respondents collectively recognize the planetary scale of the climate crisis and the need for systemic changes. However, there are gaps between which effects of climate change should be addressed, compared to which effects of climate change respondents had an opportunity to address.

2

Role and Advocacy

Members of the design and planning community overwhelmingly consider climate change to be a serious issue and believe their professions have an important role to play. However, there are gaps between our aspiration and the perceived reality of our leadership role in addressing climate change.

3

Work Environment

Client education, investments in new work relationships and meaningful cross-disciplinary collaborations were identified as ways to overcome gaps between aspiration and professional limitations.

4

Collaboration

There is a strong desire for centering the public good in professional practice and a recognition that this would require focused political engagement and broader collaboration with civil society.

[1] Position on Climate Impacts

Survey respondents collectively recognize the planetary scale of the climate crisis and the need for systemic changes. However, there are gaps between which effects of climate change should be addressed, compared to which effects of climate change respondents had an opportunity to address.

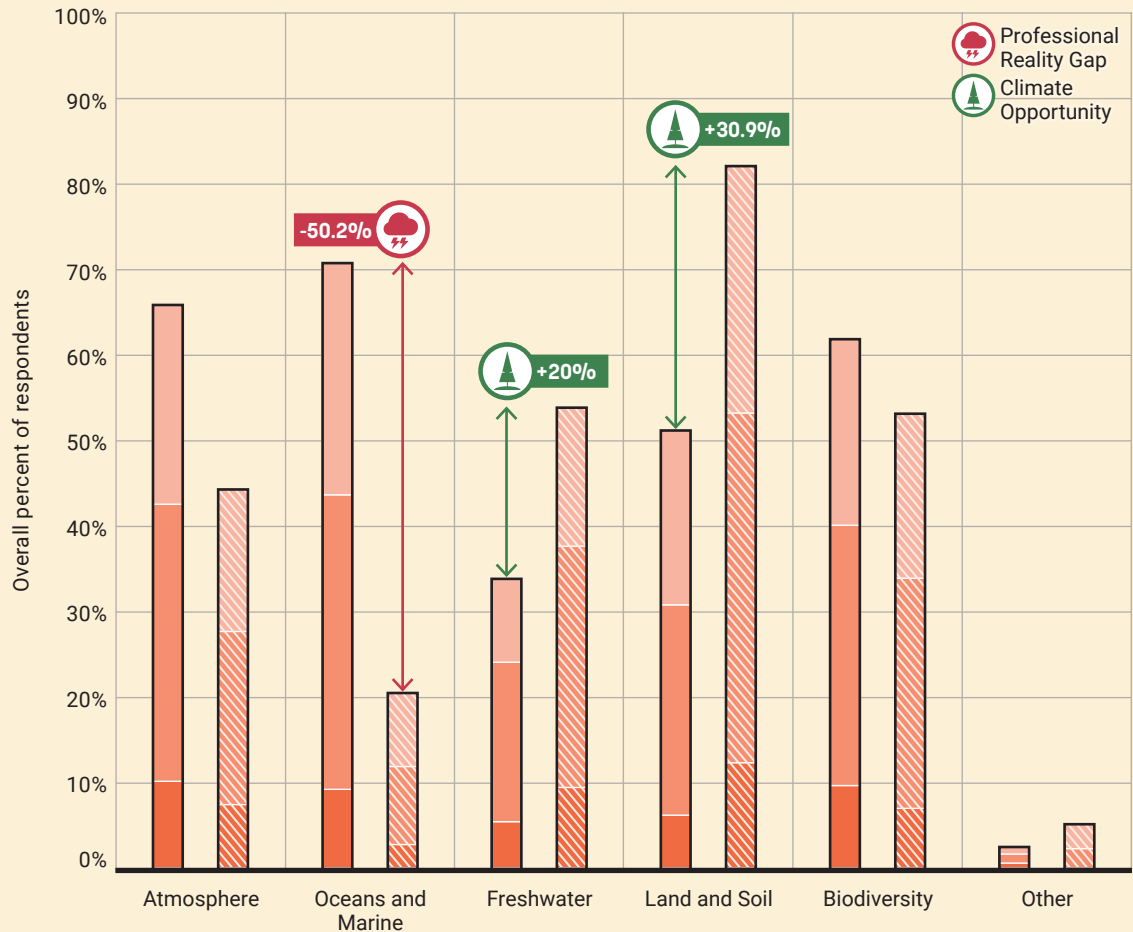
Respondents considered climate change to have profound impact across all global environmental systems from atmosphere to oceans and believed their profession to be best positioned to address issues connected to land and soil.

When asked *which global environmental systems are most impacted by human activities*, answers across most of the systems were only marginally different. While 'freshwater' (33.8%) was the least selected system, 'atmosphere' (65.8%), 'land and soil' (51.1%), 'biodiversity' (61.8%) were one of the highest choices with 'oceans and marine environments' (70.7%) being the most selected choice. **a**. When asked *which of these environmental systems their field is most equipped to address*, surprisingly, 'marine and oceanic environments' (20.4%) was least identified as an area of impact that their field is best positioned to address despite being selected as one of the most impacted by human activities. Less surprisingly, most respondents felt best positioned to address issues connected to land and soil (82.0%). **b**

“Oceans and marine environments (70.7%) are identified as being the highest environmental system impacted by human activities, however respondents do not believe they are positioned to address this issue (-50.2%)”

Figure 8. Environmental Systems

Difference between which global environmental systems respondents *'think are most impacted'* by human activities **-VS-** which impacts of human activity is their field *'best positioned to address'*?



Overall Comparison of all Respondents

'Most impacted' (n=450)	65.8%	70.7% ^a	33.8%	51.1% ^b	61.8%	2.4%
'Best positioned to address' (n=450)	44.2%	20.4%	53.8%	82.0%	53.1%	5.1%

Difference by Age Group

20-30 years (n=164)	-18.3%	-50.6%	+17.7%	+23.2%	-6.7%	+5.5%
30-50 years (n=220)	-25.0%	-51.8%	+19.5%	+33.2%	-7.3%	+2.3%
50+ years (n=66)	-18.2%	-43.9%	+27.3%	+42.4%	-18.2%	-3.0%

Overall Difference (n=450)	-21.6%	-50.2%	+20.0%	+30.9%	-8.7%	+2.7
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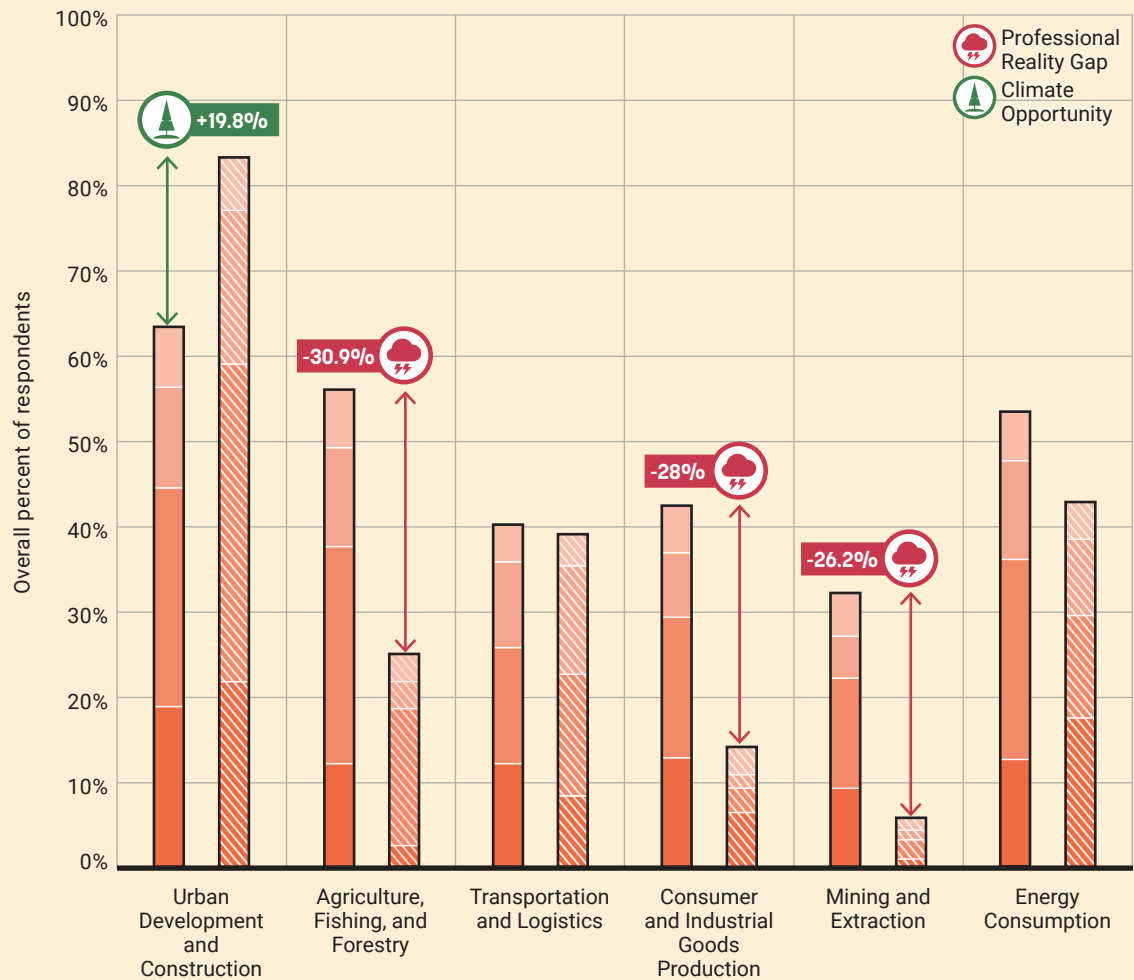
“Far fewer respondents across all fields have had professional opportunities to address activities typically found beyond urban area”

Nearly all respondents agreed that human activities have a great impact on our global environmental systems, and while field-specific trends are apparent, **respondents across all fields felt like they had little agency beyond the city.** Respondents identified ‘urban development and construction’ (63.3%) **a**, ‘agriculture, fishing and forestry’ (56.0%) **b**, and ‘energy consumption’ (53.3%) **c** as the top three human activities that have the greatest impact on global environmental systems. By far the most respondents selected ‘urban development and construction’ (83.1%) **d** as the area of human activity they’ve most had the opportunity to address the impacts of.

Far fewer respondents across all fields have had professional opportunities to address activities typically found beyond urban areas such as ‘agriculture, fishing and forestry’ (25.1%) **e**, ‘consumer and industrial goods production’ (14.4%) **f**, and ‘mining and extraction’ (6.0%) **g**. Significantly more respondents in the urban design and planning field identified ‘transportation and logistics’ as having one of the greatest impact on global environmental systems (+9.8% over the average of all respondents—40.2%), but respondents of the same field have also had the most opportunities to address the impacts of ‘transportation and logistics’ compared to other fields (+24.2% over the average of all respondents—39.1%). Architects and interior designers, on the other hand, had far less opportunities to address the impacts of transportation and logistics activities (31.1%) **h**, but in comparison to other fields, have had more experience working on ‘energy consumption’-related issues (+21.9% over the average of all respondents—42.9%), especially in comparison to landscape architects, ecologists, and civil engineers (-13.5% under the average of all respondents—42.9%).

Figure 9. Human Activities

Difference between what human activities are perceived to have the 'greatest impact' on global environmental systems **-VS-** which human activities and impacts they've had the 'opportunity to address' most?



Overall Comparison of all Respondents

'Greatest impact' (n=450)	63.3% a	56.0% b	40.2%	42.4%	32.2%	53.3% c
'Opportunity to address' (n=450)	83.1% d	25.1% e	39.1%	14.4% f	6.0% g	42.9%

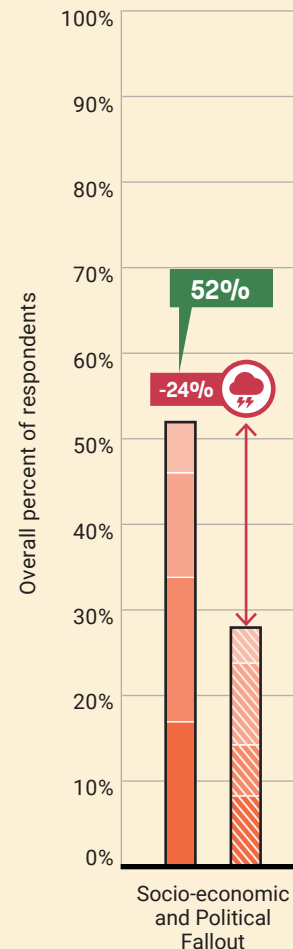
Difference by Field Group

Architecture and Interior Design (n=122)	+10.7%	-35.2%	-13.9%	-23.0%	-30.3%	+18.0%
Landscape Architecture, Ecology, and Civil (n=184)	+28.3%	-22.8%	+1.6%	-33.2%	-26.1%	-27.7%
Urban Design and Planning (n=90)	+31.1% h	-42.2%	+13.3%	-30.0%	-18.9%	-13.3%
Other (n=54)	-7.4%	-29.6%	-5.6%	-18.5%	-29.6%	-11.1%

Overall Difference (n=450)	+19.8%	-30.9%	-1.1%	-28.0%	-26.2%	-10.4%
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“Helping communities in case of displacement, migration or environmental crisis has been identified as the second highest (52%) aspiration in achieving positive impact through our work”

A broader gap is more apparent in the difference between which effects of climate change their field should help to address compared to which effects they felt they have helped address the most in their professional experience. Despite historic wildfires in Australia and more recent fires along the West Coast of the US, the fewest respondents indicated that their field should help to address ‘wildfires’ (11.3%) **a**. Additionally, despite nearly three-quarter of respondents having taken the survey during the global pandemic, few respondents felt their field should help to address ‘pandemics and vector-borne diseases’ (7.1%) **b**. In comparison to which effects they felt they have helped to address most, the discrepancies between which effects their field ‘should address more’ vs. ‘have helped address the most’ is apparent for all effects with the largest being ‘socio-economic and political fallouts’ (-24.0%) **c**, ‘environmental degradation’ (-22.2%) **d**, and ‘sea level rise and coastal inundation’ (-19.8%) **e**. When looking at the gap in ‘socio-economic and political fallouts,’ respondents in the fields of architecture and interior design (a difference of -8.0% over the average of all respondents— -24.0%) and landscape architecture, ecology, and civil engineering (a difference of -2.6% over the average of all respondents— -24.0%) had a far larger gap in comparison to other fields. While the majority of respondents in the architecture and interior design field identified ‘environmental degradation of air, water, and land’ (77.9%), and ‘rising temperatures and heat waves’ (54.1%) as the top three effects their field should be addressing, respondents of the same fields indicated that they had significantly less professional opportunities to address ‘environmental degradation of air, water, and land’ (49.2%) or ‘rising temperatures and heat waves’ (29.5%). Notably, 13.6% of all respondents were not sure if their work has helped to address any of the listed effects of climate change. This uncertainty is less pronounced for older age groups 50+ (6.1%) as compared to younger age groups such as 30-49 (11.8%) and 20-29 (18.9%).



Overall Comparison of all Respondents

‘Should address more’ (n=450)	52.0%
‘Have addressed most’ (n=450)	28.0%

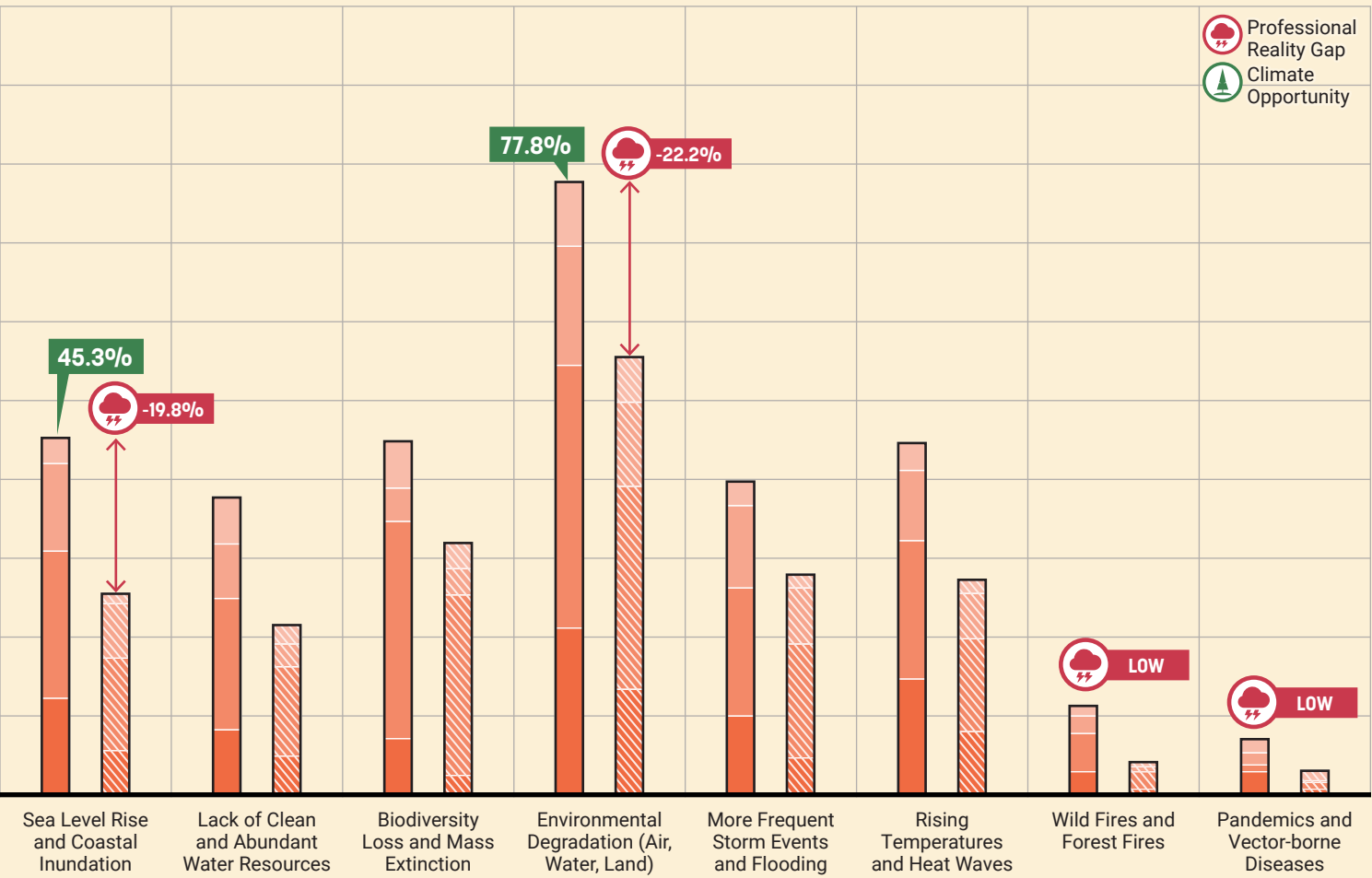
Difference by Field Group

Architecture and Interior Design (n=122)	-32.0%
Landscape Architecture, Ecology, and Civil (n=184)	-26.6%
Urban Design and Planning (n=90)	-13.3%
Other (n=54)	-14.8%

Overall Difference (n=450)	-24.0% c
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Figure 10. Effects of Climate Change

Difference between what effects of climate change respondent's field *'should address more'* **-VS-** what effects of climate change do you think you *'have addressed most'*?



45.3%	37.8%	44.9%	77.8%	39.8%	44.7%	11.3%	7.1%
25.6%	21.6%	32.0%	55.6%	28.0%	27.3%	4.2%	3.1%

-24.6%	-12.3%	-17.2%	-28.7%	-19.7%	-24.6%	-8.2%	-8.2%
-16.8%	-13.0%	-11.4%	-18.5%	-4.3%	-14.1%	-6.5%	0.0%
-21.1%	-20.0%	-4.4%	-22.2%	-16.7%	-15.6%	-7.8%	-6.7%
-16.7%	-29.6%	-22.2%	-20.4%	-11.1%	-14.8%	-5.6%	-3.7%

-19.8%	-16.2%	-12.9%	-22.2%	-11.8%	-17.3%	-7.1%	-4.0%
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[2] Role & Advocacy

Members of the design and planning community overwhelmingly consider climate change to be a serious issue and believe their professions have an important role to play. However, there are gaps between our aspiration and the perceived reality of our leadership role in addressing climate change.

Respondents felt strongly that climate change is urgent and that their field should play a leading role in addressing it, but gaps emerged when assessing the capacity and influence of their field as a recognized leader. When asked about the urgency of addressing climate change, the vast majority of respondents (88.2%) indicated that “the climate crisis is already here and we need to act now.” In terms of their field’s leadership position, most respondents agreed that their field *should* play a leading role in addressing climate change with 79.6% strongly agreeing and 14.9% somewhat agreeing with the statement. However, when asked if their field, in fact, plays a leading role in addressing climate change today, the respondents were somewhat more skeptical. **Only a little more than 20.4% strongly agreed that their field currently plays a leading role while 37.3% somewhat agreed.** Compared to the average responses in other fields, urban design and planning professionals appear somewhat more optimistic about their field playing a leading role (+6.7% compared to the average of respondents from other disciplines that either strongly or somewhat agreed—57.8%).

“Landscape Architects are most questioning that their field is recognized by society as paying a leading role in addressing climate change”

When asked if society sees their field as playing a leading role in addressing climate change, more respondents indicated neutrality or were in disagreement. Landscape architects, ecologists and civil engineers were the most pessimistic about society’s view of their field’s role in addressing climate change (+7.1% over the average of respondents that either strongly or somewhat disagreed—34.2%) while architects and interior designers were the most optimistic (+6.9% over to the average of respondents that either strongly or somewhat agreed—38.2%). Amongst those respondents working in the public/ non-profit sector, they are more likely to agree that society sees their field as playing a leading role (+8.1% over the average of respondents that either strongly or somewhat agreed—38.2%).

Figure 11. Lead Role - Aspiration

My field should play a leading role in addressing climate change (by field)

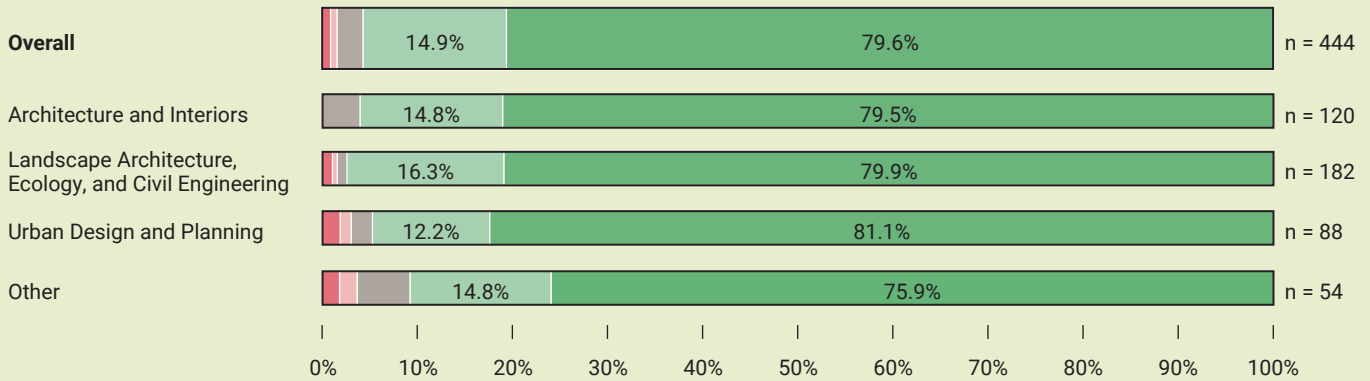


Figure 12. Lead Role - Reality:

My field plays a leading role in addressing climate change today (by field)

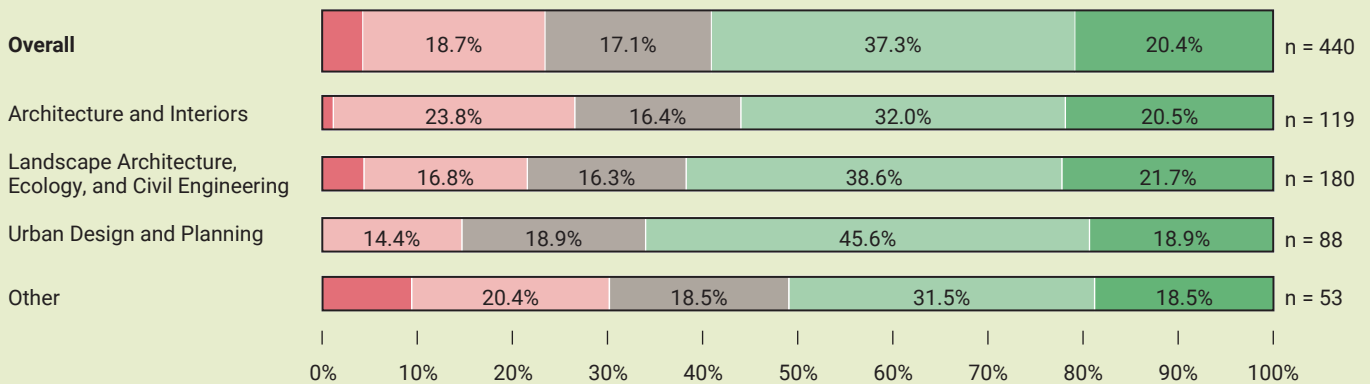
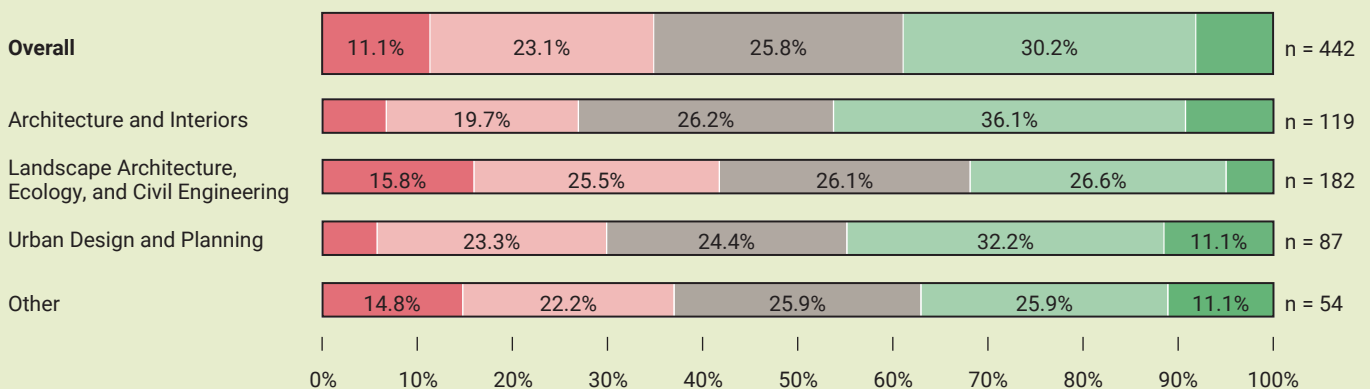


Figure 13. Lead Role - Perceived by Society:

Society sees my field as playing a leading role in addressing climate change (by field)



“Almost 80% voiced that their field should play a leading role in addressing climate change, but only a little more than 20.4% strongly agreed that their field currently plays a leading role while 37.3% somewhat agreed”

Figure 14. Having a leading role - Aspiration vs. Reality:

Likelihood to agree with the following statements:

Summary of All Fields	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
My field should play a leading role in addressing climate change (n=444)	79.6% n=358	14.9% n=67	2.7% n=12	0.7% n=3	0.9% n=4
My field plays a leading role in addressing climate change today (n=440)	20.4% n=92	37.3% n=168	17.1% n=77	18.7% n=84	4.2% n=19
Society sees my field as playing a leading role in addressing climate change (n=442)	8.0% n=36	30.2% n=136	25.8% n=116	23.1% n=104	11.1% n=50

Figures 15-17. Having a leading role - Aspiration vs. Reality:
Likelihood to agree with the following statements:

-----> My field **should play a leading role** in addressing climate change (per fields):

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Architecture & Interiors (n= 120)	79.5% n=97	14.8% n=18	4.1% n=5	0.0% n=0	0.0% n=0
Landscape Architecture, Ecology, and Civil Engineering (n=182)	79.9% n=147	16.3% n=30	1.1% n=2	0.5% n=1	1.1% n=2
Urban Design & Planning (n=88)	81.1% n=73	12.2% n=11	2.2% n=2	1.1% n=1	1.9% n=1
Other (n=54)	75.9% n=41	14.8% n=8	5.6% n=3	1.9% n=1	1.9% n=1

-----> My field **plays a leading role** in addressing climate change today (per fields):

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Architecture & Interiors (n= 119)	20.5% n=25	32% n=39	16.4% n=20	23.8% n=29	1.1% n=6
Landscape Architecture, Ecology, and Civil Engineering (n=180)	21.7% n=40	38.6% n=71	16.3% n=30	16.8% n=31	4.3% n=8
Urban Design & Planning (n=88)	18.9% n=17	45.6% n=41	18.9% n=17	14.4% n=13	0.0% n=0
Other (n=53)	18.5% n=10	31.5% n=17	18.5% n=10	20.4% n=11	9.3% n=5

-----> **Society sees my field as playing a leading role** in addressing climate change (per fields):

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Architecture & Interiors (n= 119)	9.0% n=11	36.1% n=44	26.2% n=32	19.7% n=24	6.6% n=8
Landscape Architecture, Ecology, and Civil Engineering (n=182)	4.9% n=9	26.6% n=49	26.1% n=48	25.5% n=47	15.8% n=29
Urban Design & Planning (n=87)	11.1% n=10	32.2% n=29	24.4% n=22	23.3% n=21	5.6% n=5
Other (n=54)	11.1% n=6	25.9% n=14	25.9% n=14	22.2% n=12	14.8% n=8

The perceptions and aspirations for leadership are also tied to how respondents feel they have the knowledge, tools and resources. In general, most disciplinary fields felt that they have the adequate knowledge, tools, and resources to address climate change (63.3% respondents either somewhat or strongly agreed), while those that primarily work in the public and non-profit sectors were slightly more optimistic (+7.4%). However, fewer respondents felt they had adequate agency and influence to address climate change with 34.9% either somewhat or strongly disagreeing.

Finally, when asked *whether their professional work is aligned with their aspirations in addressing climate change*, nearly two thirds of respondents (66.9%) somewhat or strongly agreed. Compared to other fields, landscape architects, ecologists, and civil engineers were slightly more in agreement (+3.2 over to the average of respondents that either strongly or somewhat agreed). Additionally, respondents working in the public or non-profit sector were significantly more likely to *strongly agree* (+16.6% over the average of respondents that strongly agreed—27.3%).

Figure 18. Adequate Knowledge & Resources:

My field has the adequate knowledge, tools and resources needed to address climate change.

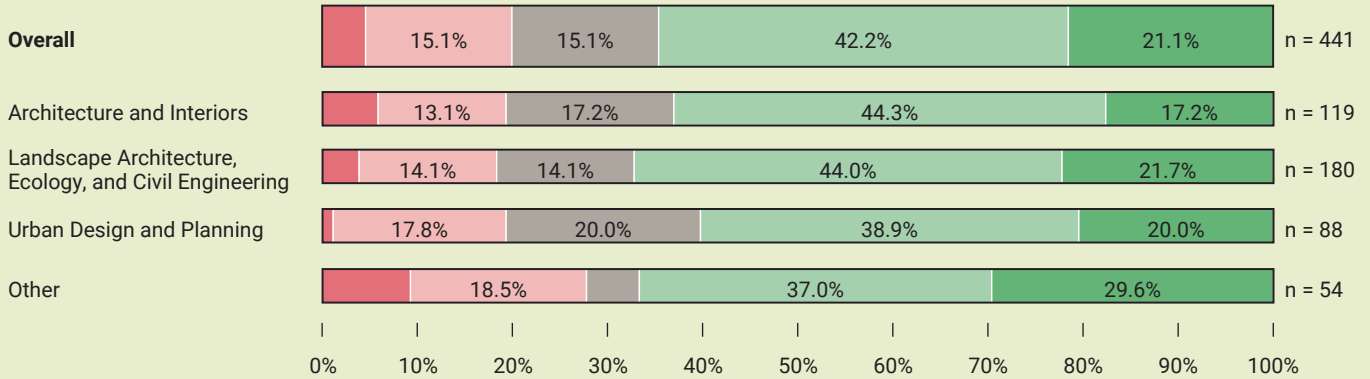


Figure 19. Adequate Agency:

My field has the adequate agency and influence needed to address climate change.

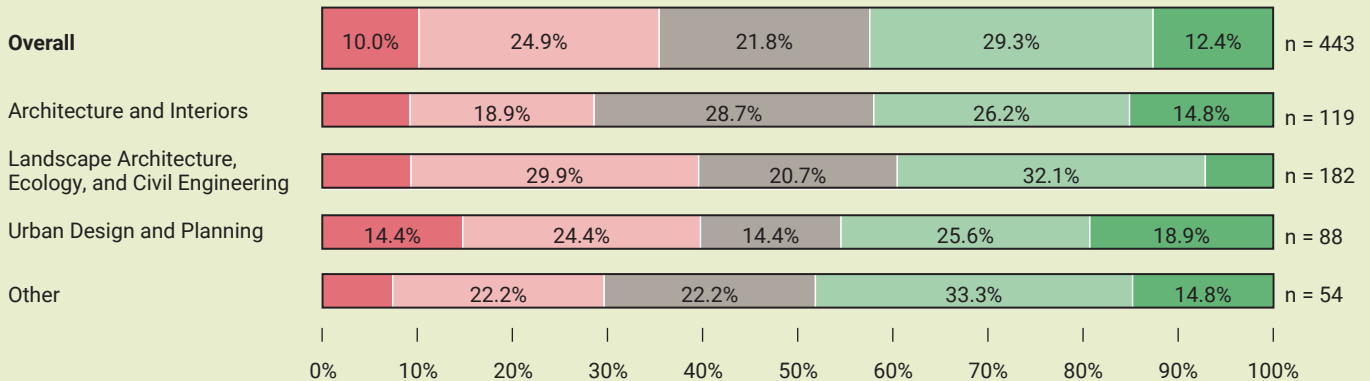
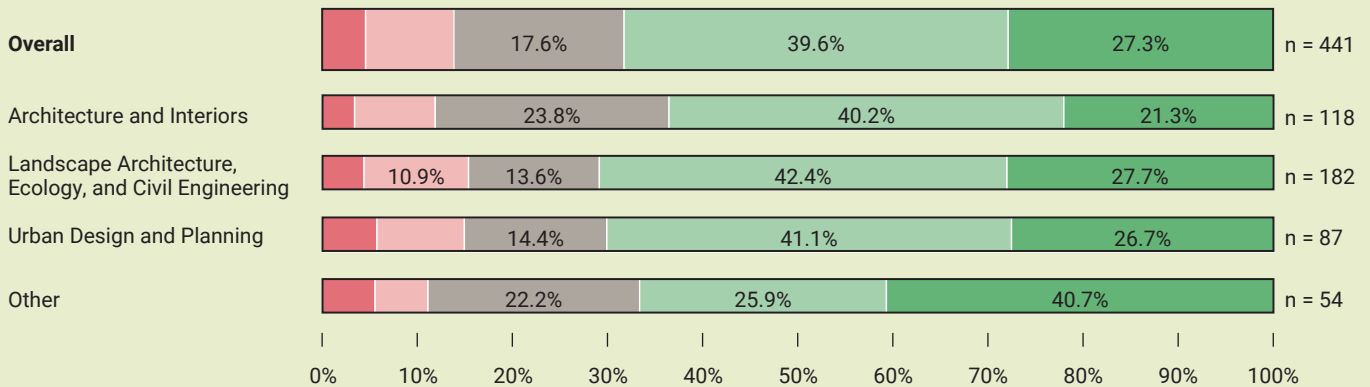


Figure 20. Work Alignment:

My professional work is aligned with my aspirations in addressing climate change.



“While over 60% of respondents are confident in having the adequate knowledge, tools and resources to address climate change, +41.7% believe we need more opportunities to apply this knowledge”

Figure 21. Adequate Knowledge & Resources, Agency & Influence and Work Alignment:
Likelihood to agree with the following statements:

Summary of All Fields	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
My field has the adequate knowledge, tools and resources needed to address climate change (n=441)	21.4% n=95	42.2% n=190	15.1% n=68	15.1% n=68	4.4% n=20
My field has the adequate agency and influence needed to address climate change (n=443)	12.4% n=56	29.3% n=132	21.8% n=98	24.9% n=112	10% n=45
My professional work is aligned with my aspirations in addressing climate change (n=441)	27.3% n=123	39.6% n=178	17.6% n=79	9.1% n=41	4.4% n=20

Figures 22-24. Adequate Knowledge & Resources, Agency & Influence and Work Alignment: Likelihood to agree with the following statements:

-----> My field has the **adequate knowledge, tools and resources** needed to address climate change.

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Architecture & Interiors (n=119)	17.2% n=21	44.3% n=54	17.2% n=21	13.1% n=16	5.7% n=7
Landscape Architecture, Ecology, and Civil Engineering (n=180)	21.7% n=40	44% n=81	14.1% n=26	14.1% n=26	3.8% n=7
Urban Design & Planning (n=88)	20% n=18	38.9% n=35	20% n=18	17.8% n=16	1.1% n=1
Other (n=54)	29.6% n=16	37% n=20	5.6% n=3	18.5% n=10	9.3% n=5

-----> My field has the **adequate agency and influence** needed to address climate change.

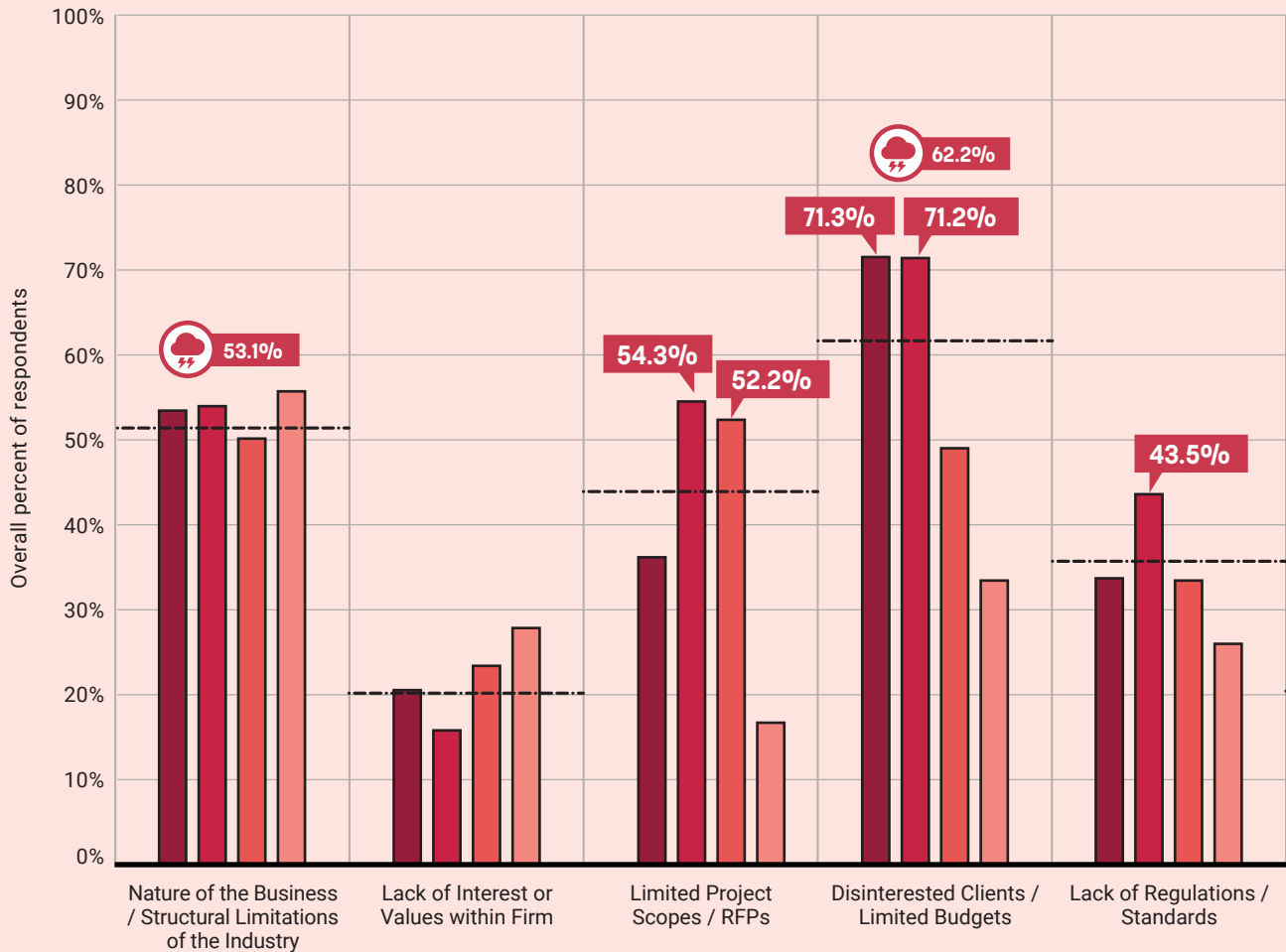
	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
Architecture & Interiors (n=119)	14.8% n=18	26.2% n=32	28.7% n=35	18.9% n=23	9.0% n=11
Landscape Architecture, Ecology, and Civil Engineering (n=182)	7.1% n=13	32.1% n=59	20.7% n=38	29.9% n=55	9.2% n=17
Urban Design & Planning (n=88)	18.9% n=17	25.6% n=23	14.4% n=13	24.4% n=22	14.4% n=13
Other (n=54)	14.8% n=8	33.3% n=18	22.2% n=12	22.2% n=12	7.4% n=4

-----> My professional **work is aligned** with my aspirations in addressing climate change.

	Very Aligned	Somewhat Aligned	Neutral	Somewhat Not Aligned	Not Aligned
Architecture & Interiors (n=118)	21.3% n=26	40.2% n=49	23.8% n=29	8.2% n=10	3.3% n=4
Landscape Architecture, Ecology, and Civil Engineering (n=182)	27.7% n=51	42.4% n=78	13.6% n=25	10.9% n=20	4.3% n=8
Urban Design & Planning (n=87)	26.7% n=24	41.1% n=37	14.4% n=13	8.9% n=8	5.6% n=5
Other (n=54)	40.7% n=22	25.9% n=14	22.2% n=12	5.6% n=3	5.6% n=3

Figure 25. Professional Constraints based on Field Group

What is keeping us from doing the work we aspire to do in addressing climate change?



Comparison by Field Group

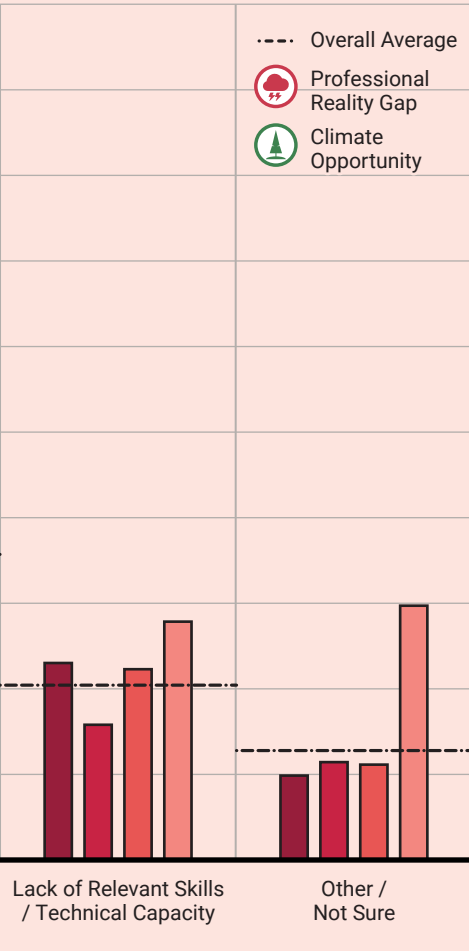
Architecture and Interior Design (n=122)	53.3%	20.5%	36.1%	71.3%	33.6%
Landscape Architecture, Ecology, and Civil (n=182)	53.8%	15.8%	54.3%	71.2%	43.5%
Urban Design and Planning (n=90)	50.0%	23.3%	52.2%	48.9%	33.3%
Other (n=54)	55.6%	27.8%	16.7%	33.3%	25.9%
Overall Average (n=450)	53.1%	20.0%	44.4%	62.2%	36.7%

[3] Work Environment

Client education, investments in new work relationships and meaningful cross-disciplinary collaborations were identified as ways to overcome gaps between aspiration and professional limitations.

A feeling shared across fields is the notion that the nature of their business as well as broader structural limitations of the industry is holding them back from addressing climate change more effectively. Given the gaps identified in the areas of work and leadership capacities, it is important to understand how design and planning professionals feel about their work and what may be specifically driving their perceived limitations in meaningfully addressing climate change in their work. **Overall, respondents identified ‘disinterested clients and limited budgets’ (62.2%) ^a as one of the highest reasons.** After this, a small majority of respondents also identified the ‘nature of the business and structural limitations of the industry’ (53.1%) ^b with somewhat less identifying ‘limited project scopes and RFPs’ (44.4%) ^c as a limitation. Notably, compared to other fields, respondents in the fields of landscape architecture, ecology, and civil engineering felt that their fields lack regulations and standards (43.5% or +6.8% over the average of all respondents—36.7%) ^d. Additionally, respondents in the field of urban design and planning were less inclined to select ‘disinterested clients and limited budgets’ (48.9% or -13.3% over the average of all respondents—62.2%) ^e.

“Overall, respondents identified ‘disinterested clients and limited budgets’ (62.2%) as one of the highest reasons”



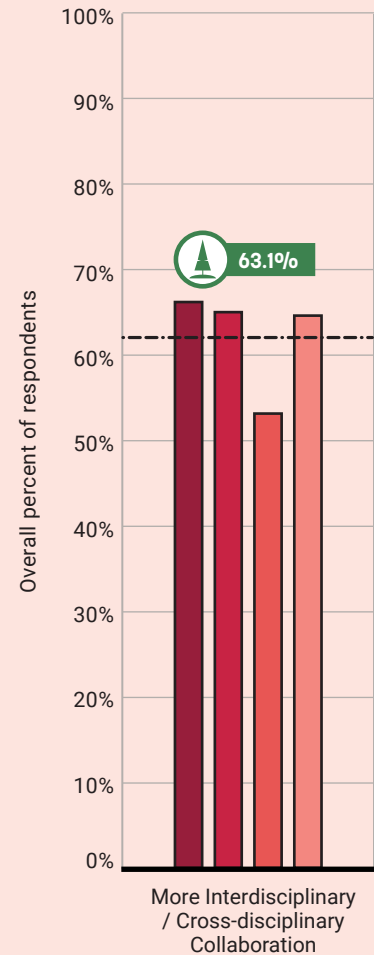
23.0%	9.9%
15.8%	11.4%
22.2%	11.1%
27.8%	29.6%

20.4%	13.1%
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Figure 26. Professional Opportunities based on Field Groups

What are the most effective steps our field can take to better address climate change?

Respondents identified ‘more interdisciplinary, cross-disciplinary collaboration’ (63.1%) **a**, ‘client education and ethical client collaboration’ (44.4%) **b**, ‘expanding professional knowledge base and technical capacity’ (40.0%) **c**, and ‘improving the awareness of our profession to the public’ (40.0%) **d** as the *most effective steps their field can take to more effectively address climate change*. Compared to other fields, architects and interior designers see ‘client education and ethical client collaboration’ (63.1% or +18% over the average of all fields—44.4%) **e** as one of the most effective steps, and indicated that ‘political mobilization and lobbying’ (28.7% or -11.1% over the average of all fields—39.8%) **f** is the least effective step. Compared to other field groups, landscape architects, ecologists, and civil engineers see ‘improving the awareness of the general public’ (50.0% or +10% over the average of all fields—40.0%) **g** as the most effective step. Respondents from the urban design and planning fields see ‘community engagement and activism’ (+11.3% over the average of all fields—39.8%) **h**, and ‘political mobilization and lobbying’ (52.2% or +12.4% over the average of all fields—39.8%) **i** as the two most effective steps. Surprisingly, respondents selected ‘work with indigenous and traditional communities’ the least overall (10%) **j** as an effective step their field can take to better address climate change.

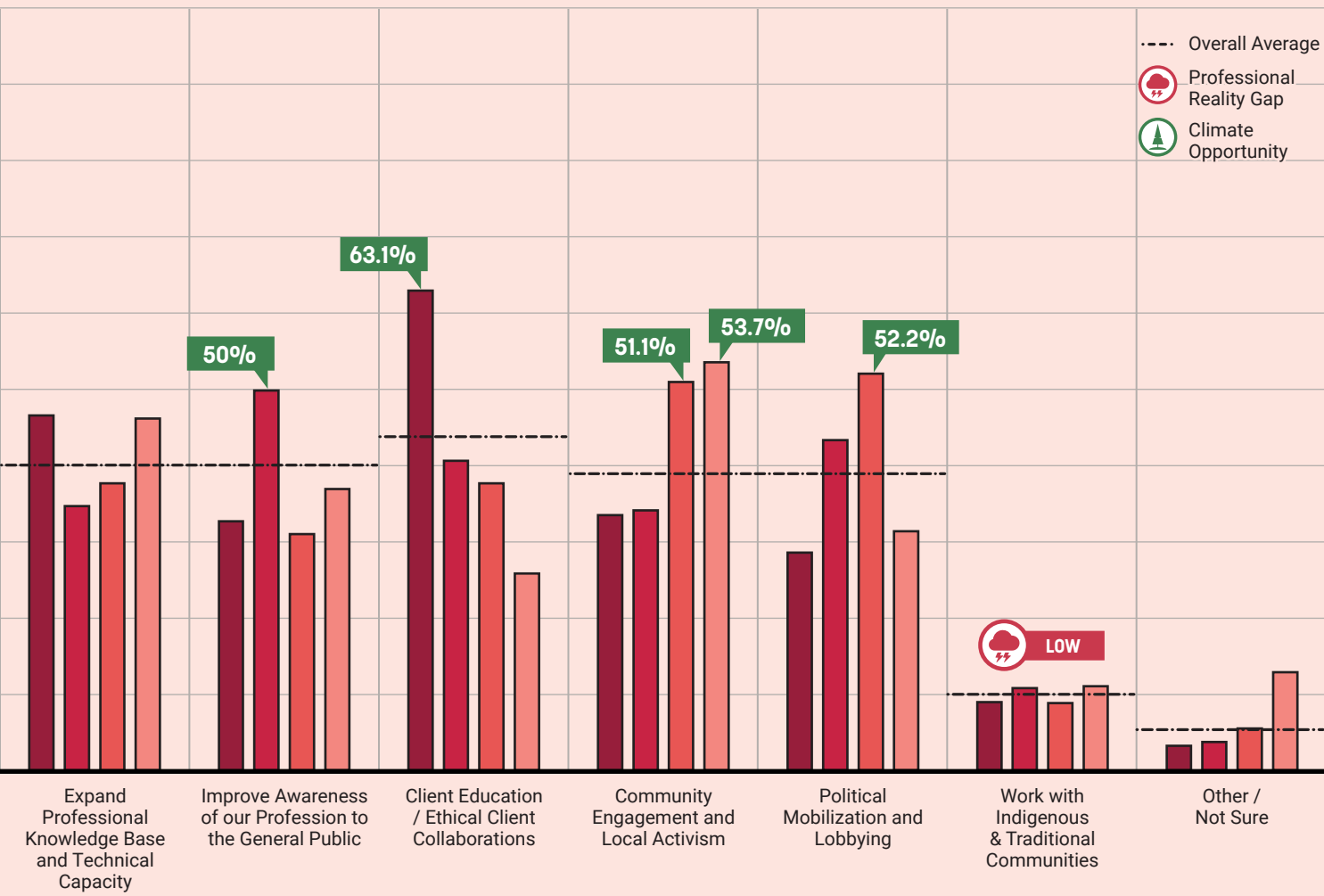


Comparison by Field Group

Architecture and Interior Design (n=122)	66.4%
Landscape Architecture, Ecology, and Civil (n=184)	65.2%
Urban Design and Planning (n=90)	53.3%
Other (n=54)	64.8%

Overall

Overall Average (n=450)	63.1%	a
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46.7%	32.8%	63.1% ^e	33.6%	28.7% ^f	9.0%	3.3%
34.8%	50.0% ^g	40.8%	34.2%	43.5%	10.9%	3.8%
37.8%	31.1%	37.8%	51.1% ^h	52.2% ⁱ	8.9%	5.6%
46.3%	37.0%	25.9%	53.7%	31.5%	11.1%	13%

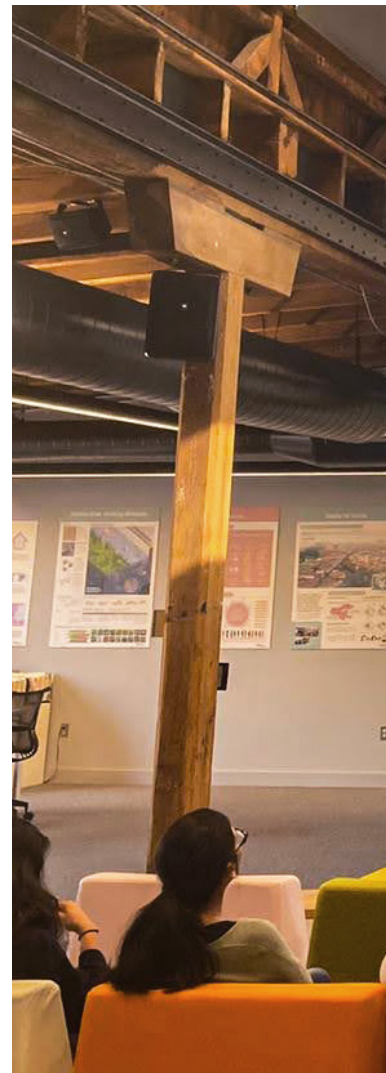
40.0% ^d	40.0% ^c	44.4% ^b	39.8%	39.8%	10.0% ⁱ	5.2%
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[4] Collaboration

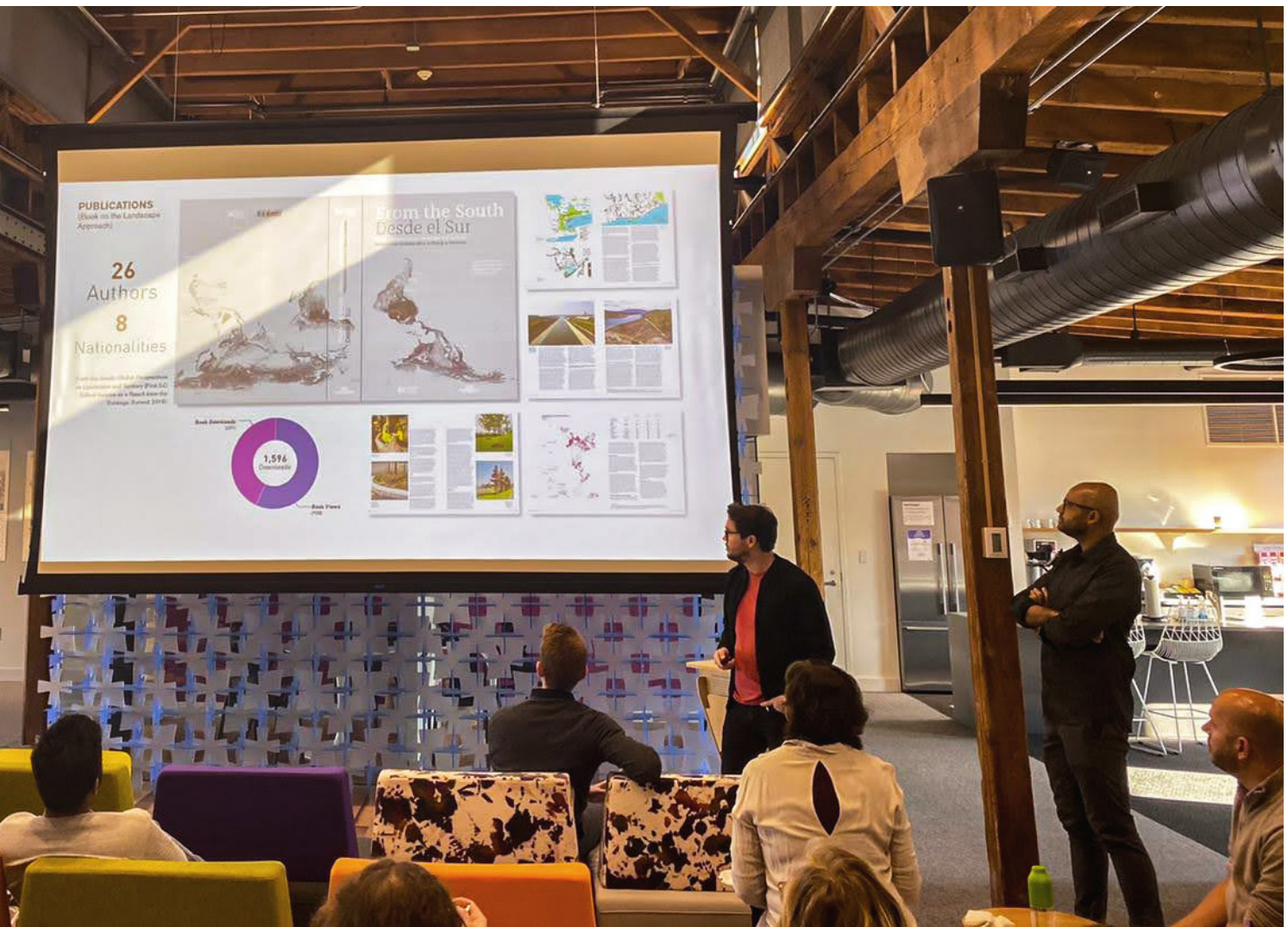
There is a strong desire for centering the public good in professional practice and a recognition that this would require focused political engagement and broader collaboration with civil society.

Several major gaps in the aspirations of respondents and the reality of their work suggest that there is a broad sense of lack in the areas of work that respondents are currently engaged to more effectively address climate change. When asked *what type of projects would be most effective in addressing climate change*, most respondents indicated that ‘adaptive reuse, preservation and land restoration’ (46.4%) **a**, ‘infrastructure planning’ (38.9%) **b** and ‘government lobbying for changes in policy or regulations’ (32.7%) **c** are most impactful. The least number of respondents indicated ‘public exhibitions or installations’ (3.6%) **d** and ‘institutional or civic asset inventory and management’ (3.3%) **e** as the most effective project types. When asked *what type of projects have they had the opportunity to work on to effectively address climate change*, respondents overall indicated that they had the most opportunity to work on ‘adaptive reuse, retrofit, preservation, or landscape restoration’ (34.9%) **f** and ‘new building, site design, or greenfield district master plans’ (34.2%) **g** (see figure 27).

In comparison between the ‘*aspirations*’ suggested by the project types respondents feel would be most effective vs. the ‘*reality*’ of what project types they’ve had the opportunity to work on is apparent for the majority of types with the largest gap being ‘government lobbying for changes in policy or regulations’ (-28%) **h**, ‘national, state, county strategic development or climate plans’ (-23.8%) **i**, and ‘institutional, city climate action plan and resilience planning’ (-15.8%) **j**. In other words, **while respondents feel these would be some of the most effective project types to address climate change, they’ve had less opportunity to work on them**. Compared to other fields, respondents in urban design and planning are most aligned (have the low gap) in their aspirations and reality for ‘institutional/city climate action planning, or resilience planning’ (aspiration—27.8%; reality—25.6%; a gap of -2.2%) **k**, and ‘community engagement, local activism, or grassroots mobilization’ (aspiration—25.6%; reality—24.4%; a gap of -1.1%) **l**. Likewise, landscape architects, ecologists, and civil engineers seem to be most aligned on project types associated with ‘environmental analysis and impact evaluation’ (aspiration—26.1%; reality—28.3%; a gap of +2.2%) **m** (see figure 28).



(Above) ILC presenting the preliminary findings of the Design Climate Survey at Sasaki’s Incubator Event Space in November, 2019.

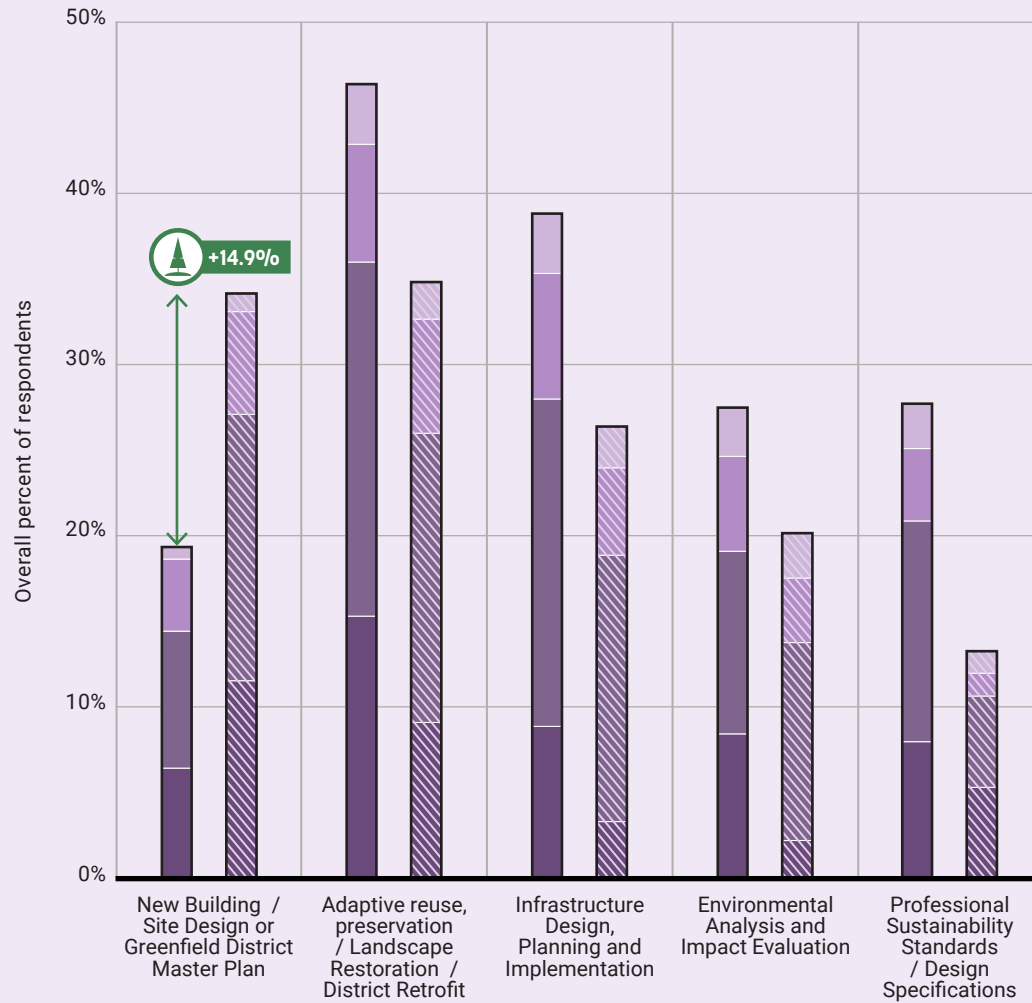


“While respondents feel these would be some of the most effective project types to address climate change, they’ve had less opportunity to work on them”

A closer look at the aspirations of respondents across sectors reveals important differences as well. Compared to respondents in the private, public, and non-profit sectors, respondents who work in academia indicated a major aspiration/reality gap in ‘community engagement, local activism, and grassroots mobilization’ (aspiration—35.8%; reality—14.2%; a gap of **-21.7%**, a 14.1% over the average gap of all sectors— **-7.6%**). Notably, compared to other sectors, respondents working in the public and non-profit sectors viewed ‘government lobbying for changes in policy or regulations’ as both being the most effective means to address climate change (aspiration—48.8%) and had more opportunities to work on these kinds of projects to address climate change (reality—14.6%; a gap of **-34.1%**).

Figure 27. Types of Work:

Difference between what type of projects would be 'most effective in addressing climate change' **-VS-** what type of projects we 'had the opportunity to actually work on' to effectively address climate change?



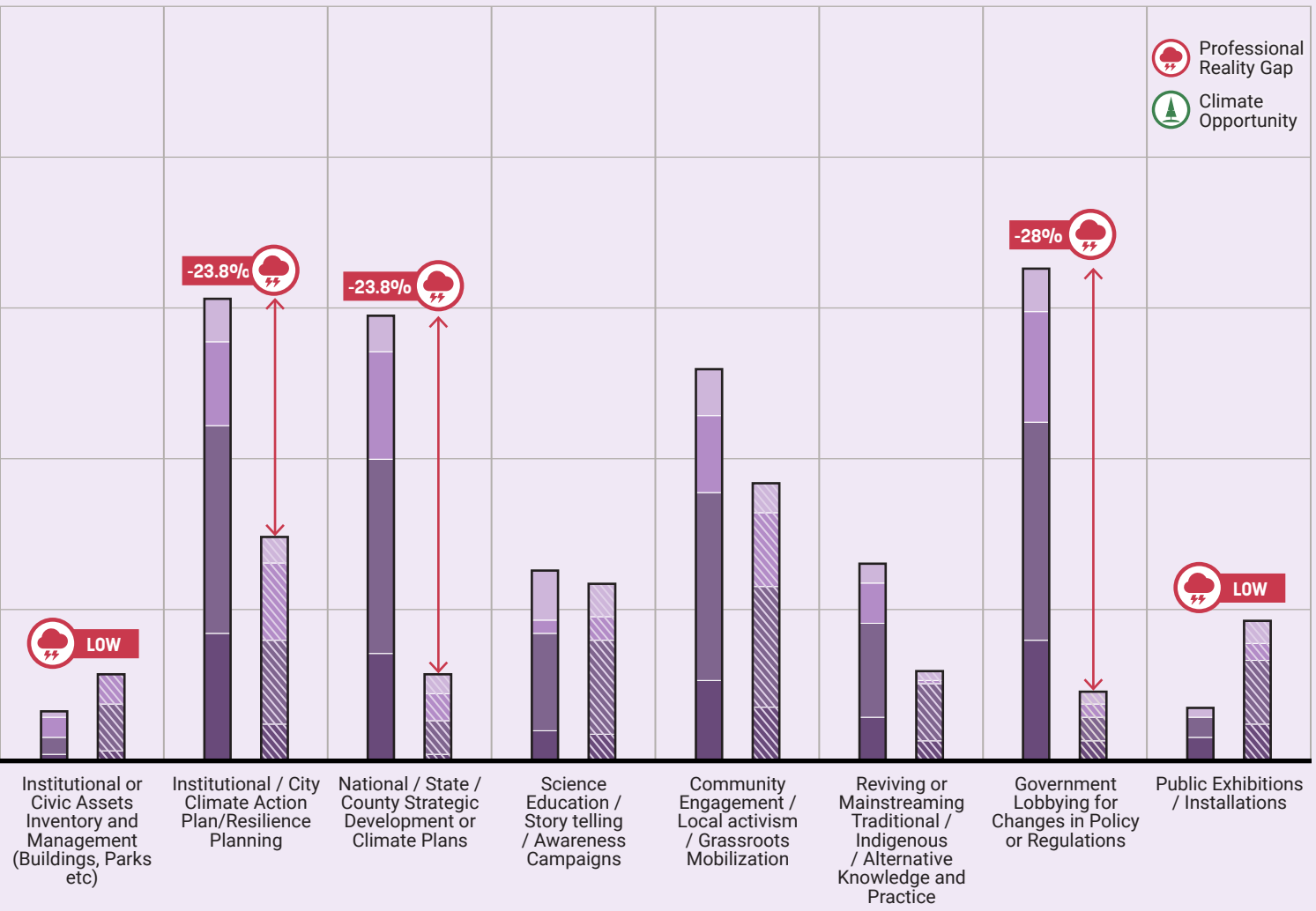
Overall Comparison of all Respondents

'Most effective in addressing climate change' (n=450)	19.3%	46.4% a	38.9% b	27.6%	27.8%
'Opportunity to actually work on' (n=450)	34.2% a	34.9% f	26.4%	20.2%	13.3%

Difference by Field Group

Architecture and Interior Design (n=122)	+18.9%	-23.0%	-20.5%	-23.0%	-9.8%
Landscape Architecture, Ecology, and Civil (n=184)	+18.5%	-9.2%	-8.7%	+2.2% m	-18.5%
Urban Design and Planning (n=90)	+8.9%	-1.1%	-11.1%	-8.9%	-14.4%
Other (n=54)	+3.7%	-11.1%	-9.3%	-1.9%	-11.1%

Overall Difference (n=450)	+14.9%	-11.6%	-12.4%	-7.3%	-14.4%
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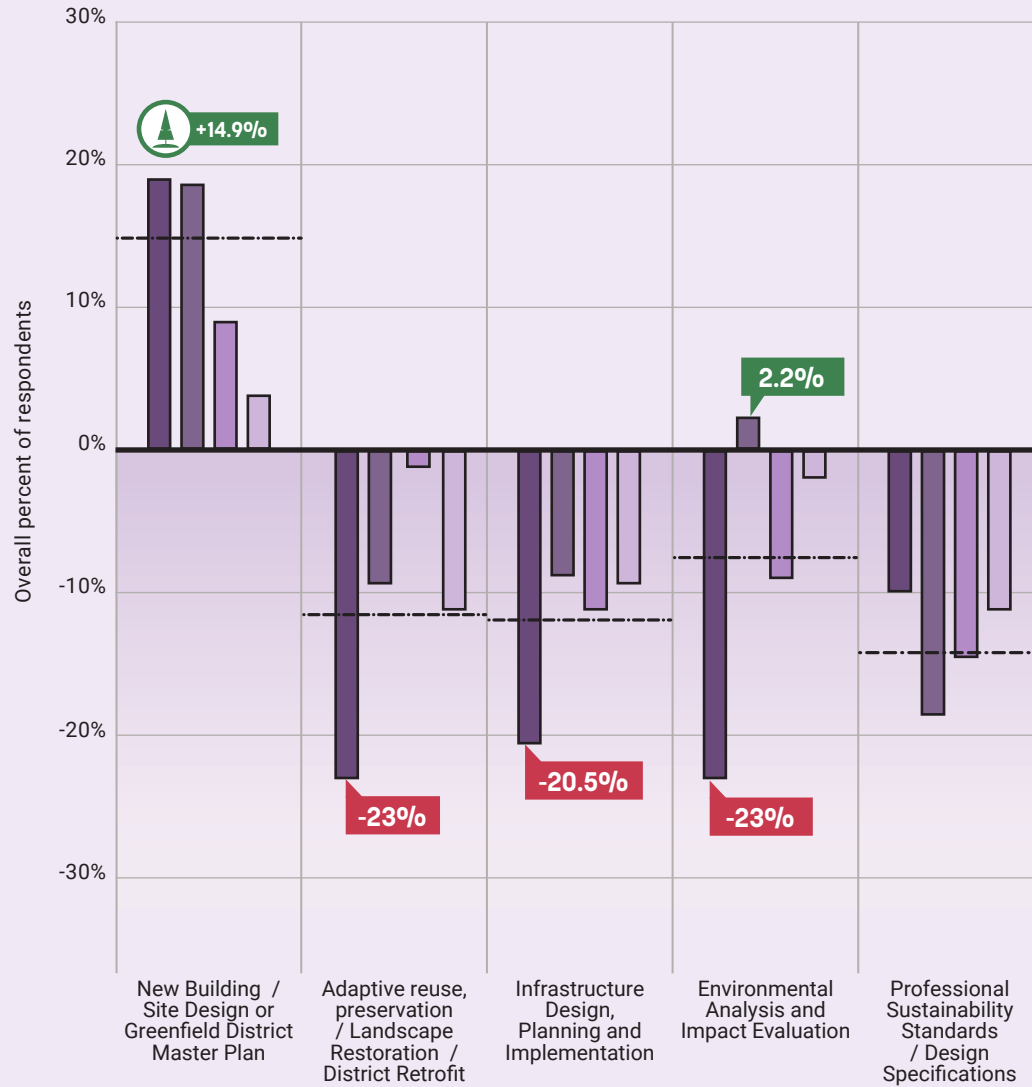
3.3%	30.7%	29.6%	12.7%	26.0%	13.1%	32.7%	3.6%
5.8%	14.9%	5.8%	11.8%	18.4%	6.0%	4.7%	9.3%

+0.8%	-22.1%	-24.6%	-0.8%	-6.6%	-5.7%	-24.6%	3.3%
+4.9%	-20.1%	-26.1%	-0.5%	-10.9%	-6.0%	-31.5%	7.1%
+3.3%	-2.2%	-26.7%	+3.3%	-1.1%	-12.2%	-32.2%	5.6%
-3.7%	-9.3%	-9.3%	-9.3%	-9.3%	-5.6%	-16.7%	7.4%

+2.4%	-15.8%	-23.8%	-0.9%	-7.6%	-7.1%	-28.0%	+5.8%
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Figure 28. Types of Work:

Difference between what type of projects would be 'most effective in addressing climate change' **-VS-** what type of projects we 'had the opportunity to actually work on' to effectively address climate change?



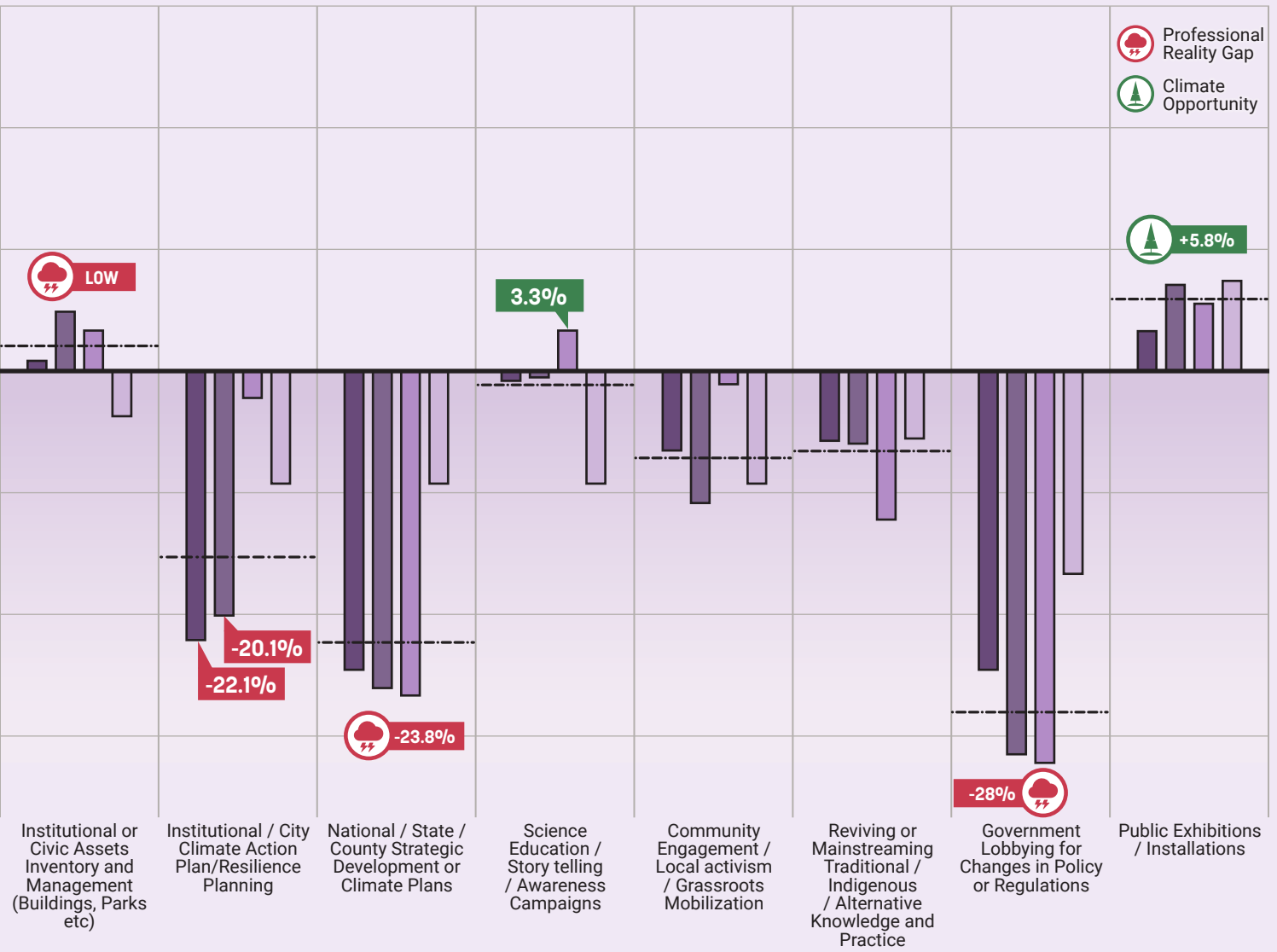
Overall Comparison of all Respondents

'Most effective in addressing climate change' (n=450)	19.3%	46.4%	38.9%	27.6%	27.8%
'Opportunity to actually work on' (n=450)	34.2%	34.9%	26.4%	20.2%	13.3%

Difference by Field Group

Architecture and Interior Design (n=122)	+18.9%	-23.0%	-20.5%	-23.0%	-9.8%
Landscape Architecture, Ecology, and Civil (n=184)	+18.5%	-9.2%	-8.7%	+2.2%	-18.5%
Urban Design and Planning (n=90)	+8.9%	-1.1%	-11.1%	-8.9%	-14.4%
Other (n=54)	+3.7%	-11.1%	-9.3%	-1.9%	-11.1%

Overall Difference (n=450)	+14.9%	-11.6%	-12.4%	-7.3%	-14.4%
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3.3%	30.7%	29.6%	12.7%	26.0%	13.1%	32.7%	3.6%
5.8%	14.9%	5.8%	11.8%	18.4%	6.0%	4.7%	9.3%

+0.8%	-22.1%	-24.6%	-0.8%	-6.6%	-5.7%	-24.6%	3.3%
+4.9%	-20.1%	-26.1%	-0.5%	-10.9%	-6.0%	-31.5%	7.1%
+3.3%	-2.2%	-26.7%	+3.3%	-1.1%	-12.2%	-32.2%	5.6%
-3.7%	-9.3%	-9.3%	-9.3%	-9.3%	-5.6%	-16.7%	7.4%

+2.4%	-15.8%	-23.8%	-0.9%	-7.6%	-7.1%	-28.0%	+5.8%
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In looking at the kinds of organizations respondents might work with to address climate change more effectively, there also appear to be aspiration-reality gaps —particularly in working with public sector and civic organizations. When asked *what types of organizations would allow their work to address climate change more effectively*, the majority of respondents indicated that working with ‘public sector organizations and governments’ (54.7%) **a** would allow them to address climate change most effectively. When asked *what types of organizations have you most often worked with*, in addition to ‘public sector organizations and governments’ (44.2%) **b**, respondents also listed ‘private developers and landowners’ (45.6%) **c** and ‘universities and other academic institutions’ (42.0%) **d** by far as the most often worked with.

In comparing their aspirations with the reality of work, several key gaps emerge for ‘public sector organizations and governments’ (-10.4%) **e**, non-profit institutions, land trusts, and conservancies’ (-14.0%) **f**, ‘think tanks and policy research organizations’ (-14.0%) **g**, and ‘grassroots community organizations’ (-12.2%) **h**. Compared to other fields, respondents in architecture and interior design show the highest discrepancy between aspiration and reality in working with the ‘public sector organizations and governments’ (a gap of -27.0% **i**; -16.6% over the average gap of all fields— -10.4%) despite the majority identifying this organizational type as being the most effective in addressing climate change (50.8%).

The fields of landscape architecture, ecology, and civil engineering also reveal two notable trends. First, the majority of respondents in these fields indicated having worked with ‘private developers and landowners’ most often (58.7%), yet far fewer (34.8%) indicated that working with this organizational type is the most effective to address climate change (a gap of +23.9%) **j**. Second, a large number of respondents in these fields indicated that working with ‘non-profit institutions, land trusts, and conservancies’ (42.9%) would allow them to address climate change more effectively, yet only half of these respondents (19.6%) actually had opportunities to work with them (a gap of -23.4%) **k**.

In looking at a wide range of disciplines involved in climate change work, respondents also identified key gaps between their aspirations and the reality of their work, highlighting the importance of expanding collaboration to address climate change more effectively. When asked about collaborating with *which fields would allow their work to address climate change more effectively*, most respondents indicated ‘environmental scientists and conservationists’ (48.2%), civil and environmental engineers (38.2%), and politicians and policymakers (34.7%) as the top three. Subsequently, when asked *what fields they most collaborated with regularly to address climate change*, more respondents indicated civil and environmental engineers (43.6%) and allied design and planning professionals (42.4%) as compared to other options.

Overall Comparison of all Respondents

‘Aspire to work with’ (n=450)
‘Most often work with’ (n=450)

Difference by Field Group

Architecture and Interior Design (n=122)
Landscape Architecture, Ecology, and Civil (n=184)
Urban Design and Planning (n=90)
Other (n=54)

Overall Difference (n=450)

Figure 29. Types of Organizations:

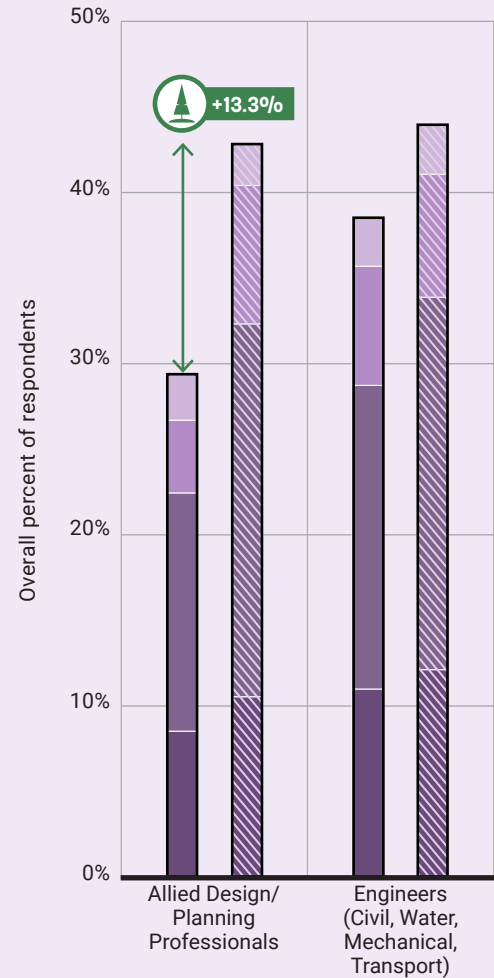
Difference between what types of organization we 'aspire to work with' to address climate change more effectively **-VS-** what types of organizations we have 'most often worked with'?



	54.7%	a	34.7%	32.2%	32.7%	24.0%	16.9%	20.2%	16.9%			
	44.2%	b	45.6%	c	18.2%	42.0%	d	11.8%	6.7%	6.2%	6.9%	
	-27.0%	i	+5.7%	-5.7%	+4.9%	-9.0%	-15.6%	-16.4%	-10.7%			
	-9.2%	+23.9%	i	-23.4%	k	+13.0%	-14.7%	-9.8%	-17.4%	-12.0%		
	-4.4%	+1.1%	-10.0%	+7.8%	-11.1%	-7.8%	-7.8%	-7.8%	-4.4%			
	13.0%	-5.6%	-7.4%	+9.3%	-13.0%	-3.7%	-7.4%	-11.1%				
	-10.4%	e	+10.9%	-14.0%	f	+9.3%	-12.2%	h	-10.2%	-14.0%	a	-10.0%

In comparing their aspirations with the reality of work, a few key gaps are apparent. The largest discrepancies are in 'indigenous, tribal, agricultural, or pastoral communities' (-12.9%) **a**, 'economists and finance professionals' (-13.6%) **b**, 'social scientists' (-15.1%) **c**, 'environmental scientists and conservationists' (-19.6%) **d**, with the largest being 'politicians and policymakers' (-27.1%) **e**. When looking at differences across fields, respondents in architecture and interior design indicated a significantly higher aspiration to collaborate with 'environmental scientists and conservationists' (46.7%) compared with the fields they regularly collaborate with most to address climate change (17.2%; a gap of -29.5%) **f**. Compared to other fields, respondents in urban design and planning were more likely to identify 'data scientists and technologists' as a field that would allow them to address climate change more effectively (28.9%), but they had less regularly collaborated with this field (10.0%; a gap of -18.9%) **d**.

Even though differences across fields are apparent—likely due to their varied areas of work and expertise—these results may indicate a broad desire to work more in engagement with a variety of social and environmental specialists including ways of engaging across scales from the community level to higher offices involved in policy making.



Overall Comparison of all Respondents

'Most effective type of collaborations' (n=450)	29.1%	38.2%
'Most regularly collaborating with' (n=450)	42.4%	43.6%

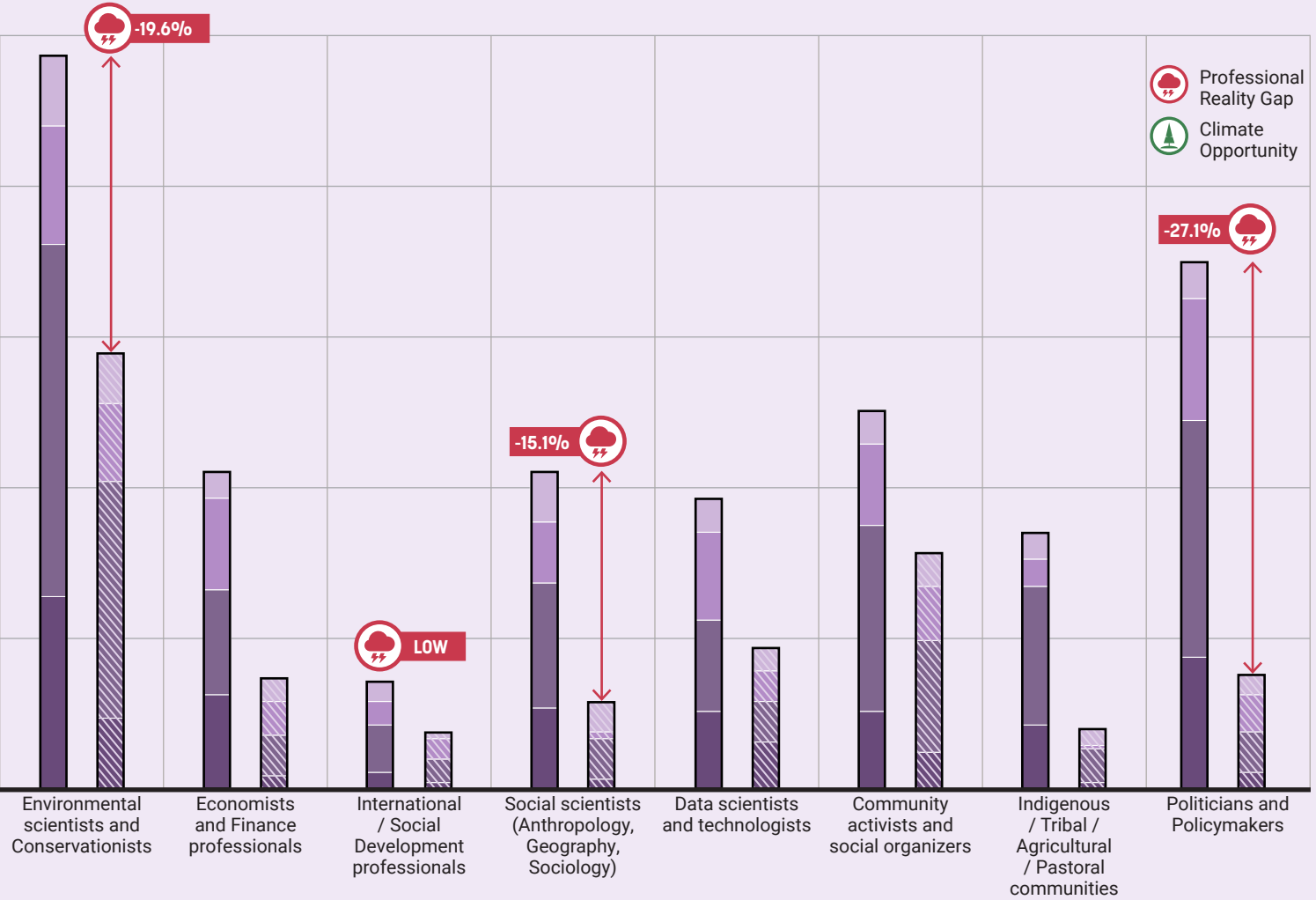
Difference by Field Group

Architecture and Interior Design (n=122)	+7.4%	+4.1%
Landscape Architecture, Ecology, and Civil (n=184)	+19.0%	+9.8%
Urban Design and Planning (n=90)	+18.9%	+1.1%
Other (n=54)	-1.9%	+0.0%

Overall Difference (n=450)	+13.3%	+5.3%
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Figure 30. Types of Collaboration:

Difference between what types of 'collaborations we believe would allow our work to address climate change more effectively' **-VS-** what types of fields we 'most regularly collaborate with' to address climate change?



48.2%	20.9%	7.1%	20.9%	19.1%	24.9%	16.9%	34.7%
28.7%	7.3%	3.8%	5.8%	9.3%	15.6%	4.0%	7.6%

-29.5%	-19.7%	-2.5%	-17.2%	-7.4%	-9.8%	-13.9%	-27.9%
-18.5%	-10.3%	-3.8%	-13.6%	-8.2%	-12.0%	-16.8%	-31.5%
-13.3%	-18.9%	-1.1%	-17.8%	-18.9%	-8.9%	-7.8%	-27.8%
-11.1%	-1.9%	-7.4%	-11.1%	-5.6%	+0.0%	-5.6%	-9.3%

-19.6%	-13.6%	-3.3%	-15.1%	-9.8%	-9.3%	-12.9%	-27.1%
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Discussion: Considering a Course of Action



The results of the survey provide a momentary snapshot across planning and design professionals as we slowly emerge from the global pandemic. It is a record of where professionals currently stand on climate change, and points to gaps between the kinds of work they have had the opportunity to do and their aspirations for what might be the most effective ways to address climate change. The survey data, therefore, is a tool to evaluate our professional relationships, and identify opportunities to expand our individual and collective areas of strength. This will allow us to meaningfully invest our collective energy to advocate for “a seat at the table” where climate actions are being discussed and find ourselves in places where most impactful actions are implemented. To bridge the gap between aspiration and reality requires our professionals to tread unfamiliar practices and processes from political advocacy to truly multidisciplinary collaborations to designing multi-scalar strategies and policies. We must ask ourselves what types of conversations and collaborations will fulfill our aspirations for meaningful impact towards issues we find most urgent? Here are three areas for consideration.

(Above) 2021 ASLA panel discussion between Adriana Chavez (ORU) and Abrahm Lustgarten (Pro-Publica), and Thomas Nideroest (ILC) on the importance of “Promoting Climate Leadership by Exploring Alternative Models of Collaboration”.

[1] To meaningfully address climate change we must scale our work outward and upward

Scaling-outward and scaling-up is required if we want to claim an active role in addressing human impacts on our global environmental systems beyond core urban areas. To create systemic impact, we should ask: how do we develop opportunities and collaborations that have a more comprehensive impact on the urban and infrastructure systems at the local, regional, and planetary scale? Likewise, instead of merely reacting to major shocks (like the amount of investment in Rebuild by Design after Hurricane Sandy), how can we promote proactivity towards their mitigation, including addressing stressors like environmental pollution, climate-induced migration, and others where they are happening? In addition, the 6th IPCC report provides the ammunition to advocate for the kinds of knowledge and services planners and designers can bring to address locally situated, material issues of climate adaptation to municipal governments, community organizations, and others “on the ground.”

We should also look to engage more directly with existing policymaking and financing initiatives. Multidisciplinary collaborations with a wide range of experts and working with municipalities towards risk-sensitive, land-use planning and building codes can inform new approaches to urbanization and conservation. Rather than applying de-contextualized “best practice” models from global cities, practitioners and academics alike can learn from greater regional and international collaboration. Embedded knowledge and practices from secondary cities and peripheral areas hold tremendous value and perspective on the limits of many technocentric strategies employed in global urban centers.

Scaling-outward will also require practitioners to reflect on their disciplinary expertise and modes of communication. The impacts of climate change will be local. Design and planning strategies may require constant re-framing to ensure that ways of speaking and engaging are grounded in how people actually experience their everyday life and prospective risks. This doesn’t mean abandoning methods such as econometric evaluation. However, we should reflect on a community’s inherent muscle memory for adaptation and use language that makes tangible the benefits and impacts of a project for residents and other stakeholders.

[2] To embolden our leadership role, we must seek agency beyond our professional boundaries and instill this ethic in the next generation

The climate leadership (and generational) gap is closely tied to the question of how we can re-frame our relationship to clients in areas where design and planning expertise is already valued. One concrete example may include helping clients to consider upstream relationships, better visualize the benefits and financial reinvestments of holistic sustainability approaches, and communicating the prerequisites of ecosystems and social benefits. To bolster our agency, we should supplement our value proposition through interdisciplinary collaborations that produce co-benefits for non-clients in sites of intervention. Investing to expand our professional network with lobbying, or by advocating for opportunities to gain experience within public agencies such as the [White House Presidential Fellowship](#) or the [NOAA Knauss Fellowship](#). In other words, becoming more politically and actively involved are important steps to coming and moving forward, as is for example the case where the [ASLA publicly criticizes the COP26](#) for its slow and limited progress on climate change.

Leadership on climate change must also be driven by the next generation of emerging planning and design professionals. Millennials in particular do not have the kinds of wealth-building opportunities as previous generations—Baby Boomers and Gen X—and yet have more at stake in a climate-changed future. This gap is even more striking when considering the amount of loans many students in planning and design take are saddled with after graduation. Can young professionals really focus on publicly-oriented leadership or addressing broader issues when salaries do not reflect the generational disparities in student debt? Additionally, adapting academic syllabi to engage with timely topics and multi-disciplinary exchange, rather than pursuing siloed education models, is one way to allow for students to view adaptation as a professional necessity. For example, the [‘Green New Deal superstudio’](#) was promoted through a partnership between the Landscape Architecture Foundation (LAF) and a wide range of other academic institutions. The superstudio received a lot of participation with “3,000 participants, 180 studio courses from over 90 universities in 39 states and 10 countries,” showing just how much appetite there is for greater collaboration in addressing timely issues of climate change. How can initiatives like these continue to be conversant with major policy issues and social movements in cultivating the voices of the next generation?

[3] To overcome our professional limitations, it is imperative to invest in new work relationships and meaningful collaborations

Increasing collaboration and addressing industry limitations will be key in order for design and planning professionals to be more effective in addressing the complex challenges of climate change. If we take the declarations and statements of professional organizations seriously, as well as the sentiments indicated in the survey, it is clear that many respondents hope to engage and collaborate with a broader array of organizations and fields. However, in order to form new work relationships and meaningful collaborations, we must simultaneously aim to overcome real and perceived limitations in our work.

Disinterested clients, limited budgets, and structural limitations of the industry are all difficult things to overcome when there is a significant dearth of work that is widely available in the public sector—even if much of the most meaningful work in addressing climate change may be located there. While private-sector driven projects to address effects of climate change, much of it is still driven by the profit motive. One inconvenient truth is that extreme concentrations of wealth go hand in hand with policies that advocate a market-driven approach to climate solutioning and less on deriving funds for major public investments from wealth-based taxes. Likewise, land speculation is still a key part of many resilience-driven project models which take advantage of the cash-strapped nature of small municipalities and their hunger for property tax revenues.

[4] We should place more emphasis on the public good and engagement in the civic realm

Perhaps there is a higher possibility that project work and collaborations in the public sector can be driven more towards the public good or broader notions of equity. However, there are barriers to work in the public sector including entrenched ideologies which tend to view “the government” or public sector approaches with doubt. Instead, we should view the public sector as a vehicle—something that can (and should) be reshaped by a new generation. Programs that aim to promote public service work in the design and planning professions can support desires to work for public good and build critical experience in the short term. In the long-term, a general economic and cultural shift is still needed to place a value on public service so that private sector salaries no longer appear as the only option for indebted students.



(Above) Design Climate Survey Word Graphic displaying most frequently used key words from the survey when respondents were asked what planning and design professionals could do more to better address climate change.

Explore the Data

The Design Climate Survey was not conceived to statistically evaluate a representative sample of the design and planning professions at large, rather it is a tool to capture our professional positions and aspirations in the context of climate change. However, centering a survey around professional aspirations and the reality of working to address climate change comes with its own challenges. While there is no perfectly agreed-upon way to organize categories, groupings, phrasings, and other ways of presenting information, the final survey language reflects exchanges with professionals at Sasaki where the initial pilot survey was conducted.

There are likely other limitations that have not been explicitly mentioned here, but suffice it to say that we must be realistic with what conclusions we may draw from such a survey. The authors are not without an agenda, therefore this is not an unbiased survey. Likewise, respondents are likely self-selecting as already aspiring to address climate change in their work as is evident in the results. This, however, is part of the intention—we aim to understand how design and planning professionals understand their work and what might be done to achieve the collective aspirations in more effectively addressing climate change. To this end, we also offer our own interpretations and opinions as part of the discussion above.

Would you like to explore the data yourself? No problem! We made the data publicly available on an interactive web-chart. Follow the link below to launch your queries and explore where you might invest in helping to collectively address climate change head on. For more information and inquiries for raw data, please contact us.

(Right) Data Explorer - Survey Web Tool.
<https://visualizations.sasaki.com/climate-survey/>



www.landscape-collaborative.org
ilc.collaborative@gmail.com

Data Explorer

Interactive data visualization tool with demographic data input as filter application.

Approach

General **position** on climate change.

Professional **aspiration** to address climate change.

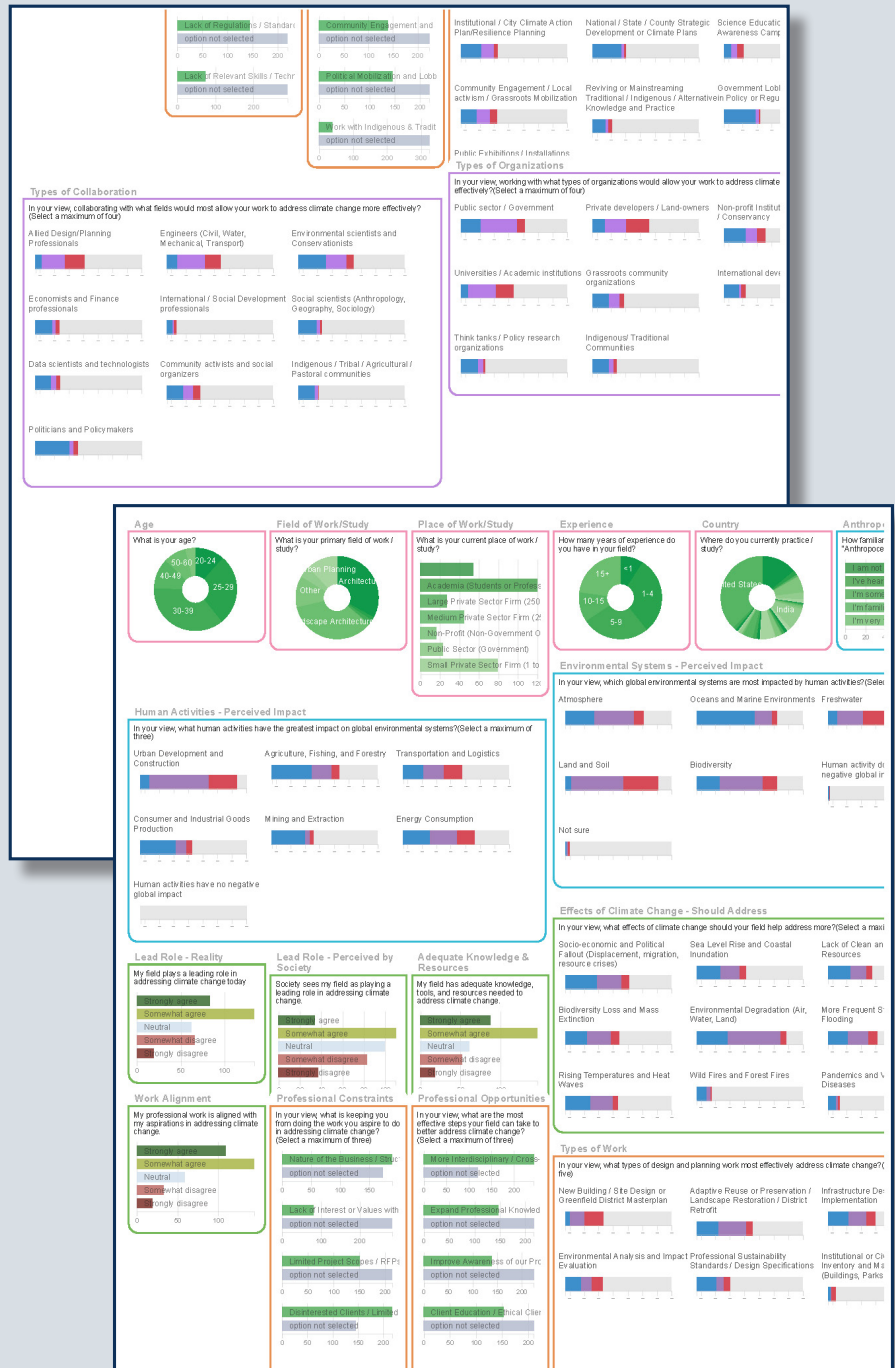
Daily **reality and opportunities** in effectively addressing climate change.

4 Themes

- Position
- Role & Advocacy
- Work Environment
- Collaborations

Link

<https://visualizations.sasaki.com/climate-survey/Completed Surveys>



Appendix A: Survey Questions

- 1 What is your age?
 - 50+
 - 30-50
 - 20-30
- 2 What is your primary field of work or study?
 - Architecture and Interior Design
 - Landscape Architecture
 - Civil Engineering
 - Climate, Sustainability, and Ecology
 - Urban Design and Planning
 - Other (Design; Education and Research; Technology and Management Services)
- 3 What is your current place of work or study?
 - Academia
 - Private
 - Public/Non-profit
- 4 How many years of experience do you have in your field?
 - Over 10
 - Under 10
- 5 Where do you work?
 - Non-US
 - US
- 6 In your view, which global environmental systems are most impacted by human activities? (Select a maximum of three)
 - Atmosphere
 - Oceans and Marine Environments
 - Freshwater
 - Land and Soil
 - Biodiversity
 - Human activity does not have negative global impact
 - Not sure
- 7 In your view, your field is best positioned to address the impacts of human activity on what global environmental systems? (Select a maximum of three)
 - Atmosphere
 - Oceans and Marine Environments
 - Freshwater
 - Land and Soil
 - Biodiversity
 - My field does not have a role to play
 - Not sure
- 8 In your view, what human activities have the greatest impact on global environmental systems? (Select a maximum of three)
 - Urban Development and Construction
 - Agriculture, Fishing, and Forestry
 - Transportation and Logistics
 - Consumer and Industrial Goods Production
 - Mining and Extraction
 - Energy Consumption
 - Other (Please Specify)
 - Not Sure
- 9 In your professional experience, which human activities and their impacts do you think you've had the opportunity to address the most? (Select a maximum of three)
 - Urban Development and Construction
 - Agriculture, Fishing, and Forestry
 - Transportation and Logistics
 - Consumer and Industrial Goods Production
 - Mining and Extraction
 - Energy Consumption
 - Other (Please Specify)
 - Not Sure
- 10 In your view, what is the urgency of addressing climate change?
 - The climate crisis is already here and we need to act now
 - We need to mobilize and act within my generation
 - We can address climate change over multiple generations
 - We are too late and cannot do anything to mitigate or adapt to climate change
 - Climate change is not an Issue
 - Not sure
- 11 In your view, what is driving climate change more: human activity or natural variability?
 - Human activity is solely responsible for climate change
 - Human activity is mainly responsible
 - Natural variability and human activity are equally responsible
 - Natural variability is mainly responsible
 - Climate change is solely the result of natural variability
 - Not sure
- 12 In your view, what effects of climate change should your field help address more? (Select a maximum of four)
 - Socio-economic and Political Fallout
 - Sea Level Rise and Coastal Inundation
 - Lack of Clean and Abundant Water Resources
 - Biodiversity Loss and Mass Extinction
 - Environmental Pollution and Degradation
 - More Frequent Storm Events and Flooding
 - Rising Temperatures and Heat Waves
 - Wild Fires and Forest Fires
 - Pandemics and Vector-borne Diseases
 - Other (Please Specify)
 - Not sure
- 13 In your professional experience, what effects of climate change do you think you have helped address the most? (Select a maximum of four)
 - Socio-economic & Political Fallout (Displacement, migration, resource crises)
 - Sea Level Rise and Coastal Inundation
 - Lack of Clean and Abundant Water Resources
 - Biodiversity Loss and Mass Extinction
 - Environmental Degradation (Air, Water, Land)
 - More Frequent Storm Events and Flooding
 - Rising Temperatures and Heat Waves
 - Wild Fires and Forest Fires
 - Pandemics and Vector-borne Diseases
 - Other (Please Specify)
 - Not sure:

- 14 How likely are you to agree with the following statements?
- My field should play a leading role in addressing climate change (Strongly disagree, Somewhat disagree, Neutral, Somewhat agree, Strongly agree)
 - My field plays a leading role in addressing climate change today (Strongly disagree, Somewhat disagree, Neutral, Somewhat agree, Strongly agree)
 - Society sees my field as playing a leading role in addressing climate change (Strongly disagree, Somewhat disagree, Neutral, Somewhat agree, Strongly agree)
 - My field has adequate knowledge, tools, and resources needed to address climate change (Strongly disagree, Somewhat disagree, Neutral, Somewhat agree, Strongly agree)
 - My field has adequate agency and influence to address climate change (Strongly disagree, Somewhat disagree, Neutral, Somewhat agree, Strongly agree)
 - My professional work is aligned with my aspirations in addressing climate change (Strongly disagree, Somewhat disagree, Neutral, Somewhat agree, Strongly agree)
- 15 In your view, what is keeping you from doing the work you aspire to do in addressing climate change? (Select a maximum of three)
- Nature of the Business, Structural Limitations of the Industry
 - Lack of Interest or Values within Firm
 - Limited Project Scopes, RFPs
 - Disinterested Clients, Limited Budgets
 - Lack of Regulations, Standards
 - Lack of Relevant Skills, Technical Capacity
 - Other (Please Specify)
 - Not Sure
- 16 In your view, what are the most effective steps your field can take to better address climate change? (Select a maximum of three)
- More Interdisciplinary, Cross-disciplinary Collaboration
 - Expand Professional Knowledge Base and Technical Capacity
 - Improve Awareness of our Profession to the General Public
 - Client Education, Ethical Client Collaborations
 - Community Engagement and Local Activism
 - Political Mobilization and Lobbying
 - Work with Indigenous and Traditional Communities
 - Other (Please specify)
 - Not sure
- 17 In your view, what types of design and planning work most effectively address climate change? (Select a maximum of five)
- New Building, Site Design or Greenfield District Masterplan
 - Adaptive Reuse or Preservation, Landscape Restoration, District Retrofit
 - Infrastructure Design, Planning and Implementation
 - Environmental Analysis and Impact Evaluation
 - Professional Sustainability Standards, Design Specifications
 - Institutional or Civic Assets Inventory and Management (Buildings, Parks etc)
 - Institutional, City Climate Action Plan/Resilience Planning
 - National, State, County Strategic Development or Climate Plans
- Science Education, Story telling, Awareness Campaigns
 - Community Engagement, Local activism, Grassroots Mobilization
 - Reviving or Mainstreaming Traditional, Indigenous, Alternative Knowledge and Practice
 - Government Lobbying for Changes in Policy or Regulations
 - Public Exhibitions, Installations
 - Other (Please Specify)
 - Not sure
- 18 In your experience, what types of design and planning projects have you had the opportunity to work on to effectively address climate change? (Select a maximum of five)
- New Building, Site Design or Greenfield District Masterplan
 - Adaptive Reuse or Preservation, Landscape Restoration, District Retrofit
 - Infrastructure Design, Planning and Implementation
 - Environmental Analysis and Impact Evaluation
 - Professional Sustainability Standards, Design Specifications
 - Institutional or Civic Assets Inventory and Management (Buildings, Parks etc)
 - Institutional, City Climate Action Plan/Resilience Planning
 - National, State, County Strategic Development or Climate Plans
 - Science Education, Story telling, Awareness Campaigns
 - Community Engagement, Local activism, Grassroots Mobilization
 - Reviving or Mainstreaming Traditional, Indigenous, Alternative Knowledge and Practice
 - Government Lobbying for Changes in Policy or Regulations
 - Public Exhibitions, Installations
 - Other (Please Specify)
 - Not sure
- 19 In your view, working with what types of organizations would allow your work to address climate change more effectively? (Select a maximum of four)
- Public sector, Government
 - Private developers, Land-owners
 - Non-profit Institutions, Land Trusts, Conservancy
 - Universities, Academic institutions
 - Grassroots community organizations
 - International development agencies
 - Think tanks, Policy research organizations
 - Indigenous, Traditional Communities
 - Other (Please Specify)
 - Not sure
- 20 In your professional experience, what types of organizations have you most often worked with? (Select a maximum of four)
- Public sector, Government
 - Private developers, Land-owners
 - Non-profit Institutions, Land Trusts, Conservancy
 - Universities, Academic institutions
 - Grassroots community organizations
 - International development agencies
 - Think tanks, Policy research organizations
 - Indigenous, Traditional Communities
 - Other (Please Specify)

Not sure

21 In your view, collaborating with what fields would most allow your work to address climate change more effectively?(Select a maximum of four)

- Allied Design/Planning Professionals
- Engineers (Civil, Water, Mechanical, Transport)
- Environmental scientists and Conservationists
- Economists and Finance professionals
- International, Social Development professionals
- Social scientists (Anthropology, Geography, Sociology)
- Data scientists and technologists
- Community activists and social organizers
- Indigenous, Tribal, Agricultural, Pastoral communities
- Politicians and Policymakers
- Other (Please Specify)
- Not sure

22 In your experience, what fields do you most collaborate with regularly to address climate change?

- Allied Design/Planning Professionals
- Engineers (Civil, Water, Mechanical, Transport)
- Environmental scientists and Conservationists
- Economists and Finance professionals
- International, Social Development professionals
- Social scientists (Anthropology, Geography, Sociology)
- Data scientists and technologists
- Community activists and social organizers
- Indigenous, Tribal, Agricultural, Pastoral communities
- Politicians and Policymakers
- Other (Please Specify)
- Not sure

23 In your view, are design and planning professionals doing the best they can to address the issues of climate change? If so, what more should be done? Are there opportunities the design and planning community are missing out on?

Appendix B: Detailed Survey Results by Field Group

6 In your view, what human activities have the greatest impact on global environmental systems? (Select a maximum of three)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Atmosphere	68.9% (84)	59.8% (110)	73.3% (66)	66.7% (36)	65.8% (296)
Oceans and Marine Environments	73.8% (90)	65.2% (120)	71.1% (64)	81.5% (44)	70.7% (318)
Freshwater	32.8% (40)	38.0% (70)	28.9% (26)	29.6% (16)	33.8% (152)
Land and Soil	42.6% (52)	52.2% (96)	54.4% (49)	61.1% (33)	51.1% (230)
Biodiversity	54.1% (66)	69.6% (128)	62.2% (56)	51.9% (28)	61.8% (278)
Human activity does not have negative global impact	0.8% (1)	1.1% (2)	0.0% (0)	3.7% (2)	1.1% (5)
Not sure	3.3% (4)	0.5% (1)	0.0% (0)	1.9% (1)	1.3% (6)

7 In your view, your field is best positioned to address the impacts of human activity on what global environmental systems? (Select a maximum of three)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Atmosphere	78.7% (96)	23.4% (43)	18.9% (17)	79.6% (43)	44.2% (199)
Oceans and Marine Environments	24.6% (30)	14.7% (27)	20.0% (18)	31.5% (17)	20.4% (92)
Freshwater	38.5% (47)	65.8% (121)	28.9% (26)	88.9% (48)	53.8% (242)
Land and Soil	78.7% (96)	87.5% (161)	37.8% (34)	144.4% (78)	82.0% (369)
Biodiversity	23.8% (29)	81.0% (149)	32.2% (29)	59.3% (32)	53.1% (239)
Human activity does not have negative global impact	0.0% (0)	1.1% (2)	0.0% (0)	0.0% (0)	0.4% (2)
Not sure	4.9% (6)	0.5% (1)	7.8% (7)	13.0% (7)	4.7% (21)

8 In your view, what human activities have the greatest impact on global environmental systems? (Select a maximum of three)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Urban Development and Construction	69.7% (85)	62.5% (115)	35.6% (32)	98.1% (53)	63.3% (285)
Agriculture, Fishing, and Forestry	45.1% (55)	62.0% (114)	34.4% (31)	96.3% (52)	56.0% (252)
Transportation and Logistics	45.1% (55)	33.2% (61)	22.2% (20)	83.3% (45)	40.2% (181)
Consumer and Industrial Goods Production	47.5% (58)	40.2% (74)	27.8% (25)	63.0% (34)	42.4% (191)
Mining and Extraction	34.4% (42)	31.5% (58)	25.6% (23)	40.7% (22)	32.2% (145)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Energy Consumption	46.7% (57)	57.1% (105)	28.9% (26)	96.3% (52)	53.3% (240)
Other (Please Specify)	0.0% (0)	1.6% (3)	0.0% (0)	3.7% (2)	1.1% (5)
Not Sure	1.6% (2)	0.5% (1)	2.2% (2)	0.0% (0)	1.1% (5)

9 In your professional experience, which human activities and their impacts do you think you've had the opportunity to address the most? (Select a maximum of three)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Urban Development and Construction	80.3% (98)	90.8% (167)	90.0% (81)	51.9% (28)	83.1% (374)
Agriculture, Fishing, and Forestry	9.8% (12)	39.1% (72)	15.6% (14)	27.8% (15)	25.1% (113)
Transportation and Logistics	31.1% (38)	34.8% (64)	63.3% (57)	31.5% (17)	39.1% (176)
Consumer and Industrial Goods Production	24.6% (30)	7.1% (13)	7.8% (7)	27.8% (15)	14.4% (65)
Mining and Extraction	4.1% (5)	5.4% (10)	5.6% (5)	13.0% (7)	6.0% (27)
Energy Consumption	64.8% (79)	29.3% (54)	44.4% (40)	37.0% (20)	42.9% (193)
Other	0.8% (1)	4.9% (9)	2.2% (2)	7.4% (4)	3.6% (16)
Not Sure	5.7% (7)	1.1% (2)	2.2% (2)	11.1% (6)	3.8% (17)

10 In your view, what is the urgency of addressing climate change?

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
The climate crisis is already here and we need to act now	88.5% (108)	87.5% (161)	91.1% (82)	85.2% (46)	88.2% (397)
We need to mobilize and act within my generation	6.6% (8)	4.3% (8)	4.4% (4)	5.6% (3)	5.1% (23)
We can address climate change over multiple generations	3.3% (4)	6.0% (11)	2.2% (2)	7.4% (4)	4.7% (21)
We are too late and cannot do anything to mitigate or adapt to climate change	0.8% (1)	1.6% (3)	0.0% (0)	1.9% (1)	1.1% (5)
Climate change is not an Issue	0.0% (0)	0.0% (0)	1.1% (1)	0.0% (0)	0.2% (1)
Not sure	0.0% (0)	0.5% (1)	1.1% (1)	0.0% (0)	0.4% (2)

11 In your view, what is driving climate change more: human activity or natural variability?

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Human activity is solely responsible for climate change	21.3% (26)	26.6% (49)	30.0% (27)	25.9% (14)	25.8% (116)
Human activity is mainly responsible	67.2% (82)	62.0% (114)	63.3% (57)	64.8% (35)	64.0% (288)
Natural variability and human activity are equally responsible	9.0% (11)	6.5% (12)	4.4% (4)	5.6% (3)	6.7% (30)
Natural variability is mainly responsible	0.0% (0)	1.1% (2)	0.0% (0)	3.7% (2)	0.9% (4)
Climate change is solely the result of natural variability	0.8% (1)	0.5% (1)	0.0% (0)	0.0% (0)	0.4% (2)
Not sure	0.8% (1)	3.3% (6)	2.2% (2)	0.0% (0)	2.0% (9)

12 In your view, what effects of climate change should your field help address more? (Select a maximum of four)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Socio-economic and Political Fallout	62.3% (76)	41.3% (76)	61.1% (55)	50.0% (27)	52.0% (234)
Sea Level Rise and Coastal Inundation	45.1% (55)	45.7% (84)	55.6% (50)	27.8% (15)	45.3% (204)
Lack of Clean and Abundant Water Resources	30.3% (37)	40.8% (75)	34.4% (31)	50.0% (27)	37.8% (170)
Biodiversity Loss and Mass Extinction	26.2% (32)	67.4% (124)	21.1% (19)	50.0% (27)	44.9% (202)
Environmental Pollution and Degradation	77.9% (95)	81.5% (150)	75.6% (68)	68.5% (37)	77.8% (350)
More Frequent Storm Events and Flooding	36.9% (45)	39.7% (73)	52.2% (47)	25.9% (14)	39.8% (179)
Rising Temperatures and Heat Waves	54.1% (66)	42.9% (79)	44.4% (40)	29.6% (16)	44.7% (201)
Wild Fires and Forest Fires	10.7% (13)	12.0% (22)	11.1% (10)	11.1% (6)	11.3% (51)
Pandemics and Vector-borne Diseases	10.7% (13)	2.2% (4)	7.8% (7)	14.8% (8)	7.1% (32)
Other (Please Specify)	1.6% (2)	4.9% (9)	2.2% (2)	7.4% (4)	3.8% (17)
Not sure	2.5% (3)	0.0% (0)	0.0% (0)	7.4% (4)	1.6% (7)

13 In your professional experience, what effects of climate change do you think you have helped address the most? (Select a maximum of four)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Socio-economic and Political Fallout	30.3% (37)	14.7% (27)	47.8% (43)	35.2% (19)	28.0% (126)
Sea Level Rise and Coastal Inundation	20.5% (25)	28.8% (53)	34.4% (31)	11.1% (6)	25.6% (115)
Lack of Clean and Abundant Water Resources	18.0% (22)	27.7% (51)	14.4% (13)	20.4% (11)	21.6% (97)
Biodiversity Loss and Mass Extinction	9.0% (11)	56.0% (103)	16.7% (15)	27.8% (15)	32.0% (144)
Environmental Pollution and Degradation	49.2% (60)	63.0% (116)	53.3% (48)	48.1% (26)	55.6% (250)
More Frequent Storm Events and Flooding	17.2% (21)	35.3% (65)	35.6% (32)	14.8% (8)	28.0% (126)
Rising Temperatures and Heat Waves	29.5% (36)	28.8% (53)	28.9% (26)	14.8% (8)	27.3% (123)
Wild Fires and Forest Fires	2.5% (3)	5.4% (10)	3.3% (3)	5.6% (3)	4.2% (19)
Pandemics and Vector-borne Diseases	2.5% (3)	2.2% (4)	1.1% (1)	11.1% (6)	3.1% (14)
Other (Please Specify)	0.8% (1)	6.0% (11)	2.2% (2)	9.3% (5)	4.2% (19)
Not sure	23.8% (29)	8.7% (16)	8.9% (8)	27.8% (15)	15.1% (68)

14 How likely are you to agree with the following statements?

My field should play a leading role in addressing climate change

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Architecture and Interior Design (n = 122)	0.0% (0)	0.0% (0)	4.1% (5)	14.8% (18)	79.5% (97)
Landscape Architecture, Ecology, and Civil (n = 184)	1.1% (2)	0.5% (1)	1.1% (2)	16.3% (30)	79.9% (147)
Urban Design and Planning (n = 90)	1.1% (1)	1.1% (1)	2.2% (2)	12.2% (11)	81.1% (73)
Other (n = 54)	1.9% (1)	1.9% (1)	5.6% (3)	14.8% (8)	75.9% (41)
Grand Total (n = 450)	0.9% (4)	0.7% (3)	2.7% (12)	14.9% (67)	79.6% (358)

My field plays a leading role in addressing climate change today

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Architecture and Interior Design (n = 122)	4.9% (20)	23.8% (39)	16.4% (29)	32.0% (25)	20.5% (6)
Landscape Architecture, Ecology, and Civil (n = 184)	4.3% (30)	16.8% (71)	16.3% (31)	38.6% (40)	21.7% (8)
Urban Design and Planning (n = 90)	0.0% (17)	14.4% (41)	18.9% (13)	45.6% (17)	18.9% (0)
Other (n = 54)	9.3% (10)	20.4% (17)	18.5% (11)	31.5% (10)	18.5% (5)

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Grand Total (n = 450)	4.2% (77)	18.7% (168)	17.1% (84)	37.3% (92)	20.4% (19)

Society sees my field as playing a leading role in addressing climate change

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Architecture and Interior Design (n = 122)	6.6% (32)	19.7% (44)	26.2% (24)	36.1% (11)	9.0% (8)
Landscape Architecture, Ecology, and Civil (n = 184)	15.8% (48)	25.5% (49)	26.1% (47)	26.6% (9)	4.9% (29)
Urban Design and Planning (n = 90)	5.6% (22)	23.3% (29)	24.4% (21)	32.2% (10)	11.1% (5)
Other (n = 54)	14.8% (14)	22.2% (14)	25.9% (12)	25.9% (6)	11.1% (8)
Grand Total (n = 450)	11.1% (116)	23.1% (136)	25.8% (104)	30.2% (36)	8.0% (50)

My field has adequate knowledge, tools, and resources needed to address climate change

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Architecture and Interior Design (n = 122)	5.7% (21)	13.1% (54)	17.2% (16)	44.3% (21)	17.2% (7)
Landscape Architecture, Ecology, and Civil (n = 184)	3.8% (26)	14.1% (81)	14.1% (26)	44.0% (40)	21.7% (7)
Urban Design and Planning (n = 90)	1.1% (18)	17.8% (35)	20.0% (16)	38.9% (18)	20.0% (1)
Other (n = 54)	9.3% (3)	18.5% (20)	5.6% (10)	37.0% (16)	29.6% (5)
Grand Total (n = 450)	4.4% (68)	15.1% (190)	15.1% (68)	42.2% (95)	21.1% (20)

My field has adequate agency and influence to address climate change

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Architecture and Interior Design (n = 122)	9.0% (35)	18.9% (32)	28.7% (23)	26.2% (18)	14.8% (11)
Landscape Architecture, Ecology, and Civil (n = 184)	9.2% (38)	29.9% (59)	20.7% (55)	32.1% (13)	7.1% (17)
Urban Design and Planning (n = 90)	14.4% (13)	24.4% (23)	14.4% (22)	25.6% (17)	18.9% (13)
Other (n = 54)	7.4% (12)	22.2% (18)	22.2% (12)	33.3% (8)	14.8% (4)

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Grand Total (n = 450)	10.0% (98)	24.9% (132)	21.8% (112)	29.3% (56)	12.4% (45)

My professional work is aligned with my aspirations in addressing climate change

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
Architecture and Interior Design (n = 122)	3.3% (29)	8.2% (49)	23.8% (10)	40.2% (26)	21.3% (4)
Landscape Architecture, Ecology, and Civil (n = 184)	4.3% (25)	10.9% (78)	13.6% (20)	42.4% (51)	27.7% (8)
Urban Design and Planning (n = 90)	5.6% (13)	8.9% (37)	14.4% (8)	41.1% (24)	26.7% (5)
Other (n = 54)	5.6% (12)	5.6% (14)	22.2% (3)	25.9% (22)	40.7% (3)
Grand Total (n = 450)	4.4% (79)	9.1% (178)	17.6% (41)	39.6% (123)	27.3% (20)

15 In your view, what is keeping you from doing the work you aspire to do in addressing climate change? (Select a maximum of three)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Nature of the Business, Structural Limitations of the Industry	53.3% (65)	53.8% (99)	50.0% (45)	55.6% (30)	53.1% (239)
Lack of Interest or Values within Firm	20.5% (25)	15.8% (29)	23.3% (21)	27.8% (15)	20.0% (90)
Limited Project Scopes, RFPs	36.1% (44)	54.3% (100)	52.2% (47)	16.7% (9)	44.4% (200)
Disinterested Clients, Limited Budgets	71.3% (87)	71.2% (131)	48.9% (44)	33.3% (18)	62.2% (280)
Lack of Regulations, Standards	33.6% (41)	43.5% (80)	33.3% (30)	25.9% (14)	36.7% (165)
Lack of Relevant Skills, Technical Capacity	23.0% (28)	15.8% (29)	22.2% (20)	27.8% (15)	20.4% (92)
Other (Please Specify)	6.6% (8)	9.8% (18)	7.8% (7)	22.2% (12)	10.0% (45)
Not Sure	3.3% (4)	1.6% (3)	3.3% (3)	7.4% (4)	3.1% (14)

16 In your view, what are the most effective steps your field can take to better address climate change? (Select a maximum of three)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
More Interdisciplinary, Cross-disciplinary Collaboration	66.4% (81)	65.2% (120)	53.3% (48)	64.8% (35)	63.1% (284)
Expand Professional Knowledge Base and Technical Capacity	46.7% (57)	34.8% (64)	37.8% (34)	46.3% (25)	40.0% (180)
Improve Awareness of our Profession to the General Public	32.8% (40)	50.0% (92)	31.1% (28)	37.0% (20)	40.0% (180)
Client Education, Ethical Client Collaborations	63.1% (77)	40.8% (75)	37.8% (34)	25.9% (14)	44.4% (200)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Community Engagement and Local Activism	33.6% (41)	34.2% (63)	51.1% (46)	53.7% (29)	39.8% (179)
Political Mobilization and Lobbying	28.7% (35)	43.5% (80)	52.2% (47)	31.5% (17)	39.8% (179)
Work with Indigenous and Traditional Communities	9.0% (11)	10.9% (20)	8.9% (8)	11.1% (6)	10.0% (45)
Other (Please specify)	2.5% (3)	2.2% (4)	5.6% (5)	7.4% (4)	3.6% (16)
Not sure	0.8% (1)	1.6% (3)	0.0% (0)	5.6% (3)	1.6% (7)

17 In your view, what types of design and planning work most effectively address climate change? (Select a maximum of five)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
New Building, Site Design or Greenfield District Masterplan	23.8% (29)	19.6% (36)	21.1% (19)	5.6% (3)	19.3% (87)
Adaptive Reuse or Preservation, Landscape Restoration, District Retrofit	56.6% (69)	50.5% (93)	34.4% (31)	29.6% (16)	46.4% (209)
Infrastructure Design, Planning and Implementation	32.8% (40)	46.7% (86)	36.7% (33)	29.6% (16)	38.9% (175)
Environmental Analysis and Impact Evaluation	31.1% (38)	26.1% (48)	27.8% (25)	24.1% (13)	27.6% (124)
Professional Sustainability Standards, Design Specifications	29.5% (36)	31.5% (58)	21.1% (19)	22.2% (12)	27.8% (125)
Institutional or Civic Assets Inventory and Management	1.6% (2)	2.7% (5)	6.7% (6)	3.7% (2)	3.3% (15)
Institutional, City Climate Action Plan, Resilience Planning	31.1% (38)	33.7% (62)	27.8% (25)	24.1% (13)	30.7% (138)
National, State, County Strategic Development or Climate Plans	26.2% (32)	31.5% (58)	35.6% (32)	20.4% (11)	29.6% (133)
Science Education, Storytelling, Awareness Campaigns	7.4% (9)	15.8% (29)	4.4% (4)	27.8% (15)	12.7% (57)
Community Engagement, Local activism, Grassroots Mobilization	19.7% (24)	30.4% (56)	25.6% (23)	25.9% (14)	26.0% (117)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Reviving or Mainstreaming Traditional, Indigenous, Alternative Knowledge and Practice	10.7% (13)	15.2% (28)	13.3% (12)	11.1% (6)	13.1% (59)
Government Lobbying for Changes in Policy or Regulations	29.5% (36)	35.3% (65)	36.7% (33)	24.1% (13)	32.7% (147)
Public Exhibitions, Installations	5.7% (7)	3.3% (6)	0.0% (0)	5.6% (3)	3.6% (16)
Other (Please Specify)	0.0% (0)	1.6% (3)	1.1% (1)	3.7% (2)	1.3% (6)
Not sure	0.8% (1)	0.5% (1)	1.1% (1)	1.9% (1)	0.9% (4)

18 In your experience, what types of design and planning projects have you had the opportunity to work on to effectively address climate change? (Select a maximum of five)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
New Building, Site Design or Greenfield District Masterplan	42.6% (52)	38.0% (70)	30.0% (27)	9.3% (5)	34.2% (154)
Adaptive Reuse or Preservation, Landscape Restoration, District Retrofit	33.6% (41)	41.3% (76)	33.3% (30)	18.5% (10)	34.9% (157)
Infrastructure Design, Planning and Implementation	12.3% (15)	38.0% (70)	25.6% (23)	20.4% (11)	26.4% (119)
Environmental Analysis and Impact Evaluation	8.2% (10)	28.3% (52)	18.9% (17)	22.2% (12)	20.2% (91)
Professional Sustainability Standards, Design Specifications	19.7% (24)	13.0% (24)	6.7% (6)	11.1% (6)	13.3% (60)
Institutional or Civic Assets Inventory and Management	2.5% (3)	7.6% (14)	10.0% (9)	0.0% (0)	5.8% (26)
Institutional, City Climate Action Plan, Resilience Planning	9.0% (11)	13.6% (25)	25.6% (23)	14.8% (8)	14.9% (67)
National, State, County Strategic Development or Climate Plans	1.6% (2)	5.4% (10)	8.9% (8)	11.1% (6)	5.8% (26)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Science Education, Storytelling, Awareness Campaigns	6.6% (8)	15.2% (28)	7.8% (7)	18.5% (10)	11.8% (53)
Community Engagement, Local activism, Grassroots Mobilization	13.1% (16)	19.6% (36)	24.4% (22)	16.7% (9)	18.4% (83)
Reviving or Mainstreaming Traditional, Indigenous, Alternative Knowledge and Practice	4.9% (6)	9.2% (17)	1.1% (1)	5.6% (3)	6.0% (27)
Government Lobbying for Changes in Policy or Regulations	4.9% (6)	3.8% (7)	4.4% (4)	7.4% (4)	4.7% (21)
Public Exhibitions, Installations	9.0% (11)	10.3% (19)	5.6% (5)	13.0% (7)	9.3% (42)
Other (Please Specify)	3.3% (4)	1.6% (3)	2.2% (2)	1.9% (1)	2.2% (10)
Not sure	5.7% (7)	4.9% (9)	3.3% (3)	7.4% (4)	5.1% (23)

19 In your view, working with what types of organizations would allow your work to address climate change more effectively? (Select a maximum of four)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Public sector, Government	50.8% (62)	64.1% (118)	54.4% (49)	31.5% (17)	54.7% (246)
Private developers, Landowners	35.2% (43)	34.8% (64)	36.7% (33)	29.6% (16)	34.7% (156)
Non-profit Institutions, Land Trusts, Conservancy	20.5% (25)	42.9% (79)	27.8% (25)	29.6% (16)	32.2% (145)
Universities, Academic institutions	37.7% (46)	31.5% (58)	31.1% (28)	27.8% (15)	32.7% (147)
Grassroots community organizations	14.8% (18)	27.7% (51)	26.7% (24)	27.8% (15)	24.0% (108)
International development agencies	16.4% (20)	17.9% (33)	16.7% (15)	14.8% (8)	16.9% (76)
Think tanks, Policy research organizations	20.5% (25)	21.2% (39)	15.6% (14)	24.1% (13)	20.2% (91)
Indigenous, Traditional Communities	15.6% (19)	20.7% (38)	10.0% (9)	18.5% (10)	16.9% (76)
Other (Please Specify)	3.3% (4)	1.1% (2)	0.0% (0)	3.7% (2)	1.8% (8)
Not sure	2.5% (3)	0.5% (1)	1.1% (1)	3.7% (2)	1.6% (7)

20 In your professional experience, what types of organizations have you most often worked with? (Select a maximum of four)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Public sector, Government	23.8% (29)	54.9% (101)	50.0% (45)	44.4% (24)	44.2% (199)
Private developers, Landowners	41.0% (50)	58.7% (108)	37.8% (34)	24.1% (13)	45.6% (205)
Non-profit Institutions, Land Trusts, Conservancy	14.8% (18)	19.6% (36)	17.8% (16)	22.2% (12)	18.2% (82)
Universities, Academic institutions	42.6% (52)	44.6% (82)	38.9% (35)	37.0% (20)	42.0% (189)
Grassroots community organizations	5.7% (7)	13.0% (24)	15.6% (14)	14.8% (8)	11.8% (53)
International development agencies	0.8% (1)	8.2% (15)	8.9% (8)	11.1% (6)	6.7% (30)
Think tanks, Policy research organizations	4.1% (5)	3.8% (7)	7.8% (7)	16.7% (9)	6.2% (28)
Indigenous, Traditional Communities	4.9% (6)	8.7% (16)	5.6% (5)	7.4% (4)	6.9% (31)
Other (Please Specify)	3.3% (4)	0.0% (0)	0.0% (0)	1.9% (1)	1.1% (5)
Not sure	2.5% (3)	0.0% (0)	0.0% (0)	1.9% (1)	0.9% (4)

21 In your view, collaborating with what fields would most allow your work to address climate change more effectively?(Select a maximum of four)

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Allied Design and Planning Professionals	31.1% (38)	33.7% (62)	21.1% (19)	22.2% (12)	29.1% (131)
Engineers	40.2% (49)	42.9% (79)	34.4% (31)	24.1% (13)	38.2% (172)
Environmental scientists and Conservationists	46.7% (57)	56.5% (104)	38.9% (35)	38.9% (21)	48.2% (217)
Economists and Finance professionals	23.0% (28)	16.8% (31)	30.0% (27)	14.8% (8)	20.9% (94)
International, Social Development professionals	4.1% (5)	7.6% (14)	7.8% (7)	11.1% (6)	7.1% (32)
Social scientists	19.7% (24)	20.1% (37)	20.0% (18)	27.8% (15)	20.9% (94)
Data scientists and technologists	18.9% (23)	14.7% (27)	28.9% (26)	18.5% (10)	19.1% (86)
Community activists and social organizers	18.9% (23)	29.9% (55)	26.7% (24)	18.5% (10)	24.9% (112)
Indigenous, Tribal, Agricultural, and Pastoral communities	15.6% (19)	22.3% (41)	8.9% (8)	14.8% (8)	16.9% (76)
Politicians and Policymakers	32.0% (39)	38.0% (70)	40.0% (36)	20.4% (11)	34.7% (156)
Other (Please Specify)	0.0% (0)	1.1% (2)	0.0% (0)	1.9% (1)	0.7% (3)
Not sure	0.8% (1)	0.0% (0)	1.1% (1)	0.0% (0)	0.4% (2)

22 In your experience, what fields do you most collaborate with regularly to address climate change?

	Architecture and Interior Design (n = 122)	Landscape Architecture, Ecology, and Civil (n = 184)	Urban Design and Planning (n = 90)	Other (n = 54)	Grand Total (n = 450)
Allied Design and Planning Professionals	38.5% (47)	52.7% (97)	40.0% (36)	20.4% (11)	42.4% (191)
Engineers	44.3% (54)	52.7% (97)	35.6% (32)	24.1% (13)	43.6% (196)
Environmental scientists and Conservationists	17.2% (21)	38.0% (70)	25.6% (23)	27.8% (15)	28.7% (129)
Economists and Finance professionals	3.3% (4)	6.5% (12)	11.1% (10)	13.0% (7)	7.3% (33)
International, Social Development professionals	1.6% (2)	3.8% (7)	6.7% (6)	3.7% (2)	3.8% (17)
Social scientists	2.5% (3)	6.5% (12)	2.2% (2)	16.7% (9)	5.8% (26)
Data scientists and technologists	11.5% (14)	6.5% (12)	10.0% (9)	13.0% (7)	9.3% (42)
Community activists and social organizers	9.0% (11)	17.9% (33)	17.8% (16)	18.5% (10)	15.6% (70)
Indigenous, Tribal, Agricultural, and Pastoral communities	1.6% (2)	5.4% (10)	1.1% (1)	9.3% (5)	4.0% (18)
Politicians and Policymakers	4.1% (5)	6.5% (12)	12.2% (11)	11.1% (6)	7.6% (34)
Other (Please Specify)	0.8% (1)	1.1% (2)	3.3% (3)	0.0% (0)	1.3% (6)
Not sure	6.6% (8)	3.3% (6)	2.2% (2)	9.3% (5)	4.7% (21)