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PAS MEMO

Building Sustainability and Resilience into Local Planning Agencies

By Wayne Feiden, FAICP

Local governments are increasingly focusing on sustainability and resilience. This includes preparing for natural hazards, reducing carbon footprints and greenhouse gas emissions, adapting to climate change, reducing health and social inequities, promoting community economic development, and offering more transportation alternatives.

Job titles in local government increasingly include the words "sustainability" or "resilience." These issues, however, are addressed by far more planners and others without such titles.

Sustainability and resilience, by whatever terms, are hosted in planning offices; other departments, including public works or environment; and the offices of the mayor, administrator, or chief executive. Job requirements in all of these places may be perfectly aligned with planners' skill sets — or they may require different skills.

The *PAS Memo* is designed to help planners, local governments, emerging professionals, and educators think about the structure and skill sets for local government sustainability and resilience. This work is exciting, dynamic, and growing rapidly. It is increasingly grabbing our hearts, minds, and budgets. It can also be confusing, with a multitude of educational offerings and professional associations. This *Memo* will help make sense of the choices.

Sustainability and Resilience at the Local Government Level

Sustainability and resilience are much talked about, but even among planners they are sometimes narrowly or ill-defined and can become a virtual Rorschach or inkblot test. Mitigating and adapting to climate change is critical and, in some communities, any effort entitled sustainability or resilience grabs the public's attention, but that is not a sufficiently broad lens.

A common definition of sustainability in a planning context is "meet[ing] the needs of the present without compromising the ability of future generations to meet their own needs ... in particular the essential needs of the world's poor" (World Commission on Environment and Development 1987). Resilience in an urban context can be defined as "the capacity of individuals, communities, institutions, businesses and systems within a city to survive, adapt, and grow no matter what kind of chronic stresses and acute shocks they experience" (100 Resilient Cities 2017).

For many local governments, the sustainability and resilience lens requires cultural and institutional changes — a paradigm shift. Sustainability must include the integration of the "three Es": environment, economy, and equity.

Environment includes *inter*generational equity, ensuring that our resources are regenerated to support future generations. Social equity includes *intra*generational equity, valuing all human lives equally and providing for human needs. Economy includes community economic growth, economic gardening

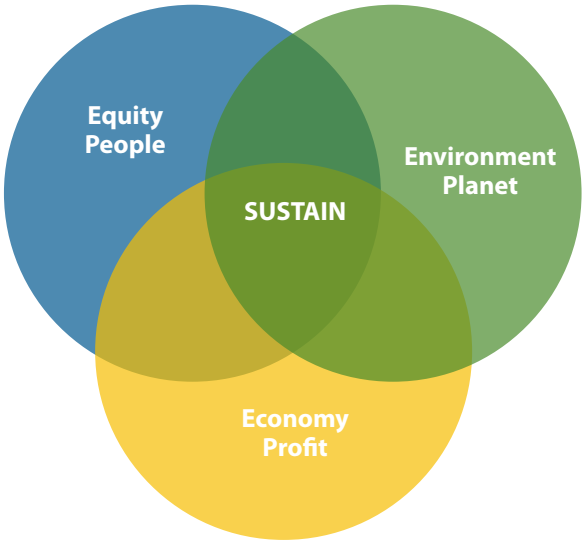

Figure 1. The Three E's of sustainability. Credit: Wayne Feiden.

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Figure 2. Three-way yin-yang of sustainability. Courtesy City of Northampton; graphic in the public domain.

for our existing communities. Most importantly, the three Es must be integrated into a single lens.

Sustainability is often represented by overlapping circles of these three Es (or Ps) of environment/planet, economy/profit, and equity/people (Figure 1, p. 1), or sometimes as a three-legged stool that would be unstable if any leg is missing. Energy, ethics, or education are occasionally added as a fourth E. Sustainability, however, is never simply the sum total of specific actions but an integrated system. A three-way yin-yang of sustainability (Figure 2) represents the integrated systems thinking necessary for integrated sustainability (Feiden 2016).

Sustainability and resilience borrow from a number of different concepts and disciplines, including systems thinking, as used by planners and psychologists alike; carrying capacity, as popularized in wildlife biology in the 19th century; community economic development; and a rich planning history (see, for example, Hamin 2016).

Systems thinking examines problems by looking at the entire upstream system, linkages, and interactions, whether it is looking at a person's family to understand the person or looking at the entire chain of events that lead to current public policies and resource consumption patterns. Carrying capacity is the amount of people, crops, carbon dioxide, heat, or any other variable that a system can carry, in the long term, without collapsing and harming that system.

Wealth creation and prosperity is a metric of economic development. Community economic development, however, stresses that a sustainable community requires an economy that advances the needs of all populations. Cities provide unparalleled opportunities for wealth creation and upward mobility, but when the likelihood of upward mobility is slim for many residents, the community is neither sustainable nor resilient.

Planning's rich history, including roots in the public health of industrial revolution cities, a focus on allocation of resources in the progressive conservation era, and efforts to serve social justice for over a century, are all threads of sustainability that remain today.

The robust and growing literature on sustainability debates its focus on the environment or on equity (e.g., Schroyer and Golodik 2006). Some argue that sustainability should mean a virtual no-growth economy, building on E.F. Schumacher's pioneering work, *Small Is Beautiful: A Study of Economics as if People Mattered* (1973), which emphasized the need to limit consumption as the basis of prosperity. For the purpose of this *PAS Memo*, however, the definitions above and the operational focus described below is sufficient.

Planners need to define and measure sustainability and resilience operationally, beyond the environment-economy-equity yin-yang. There is a large variety of methods of defining and assessing sustainability and resilience (Feiden 2011). The STAR Community Rating System (Figure 3) is the most comprehensive and popular sustainability and resilience framework and evaluation tool in North America. STAR's framework for community sustainability has seven goal areas: built environment, climate and energy, economy and jobs, education, arts and community, equity and empowerment, health and safety, and natural systems. Under those goals are 45 objectives and over 500 measures of actions and outcomes.

Another comprehensive framework for defining and measuring urban resilience is the City Resilience Index (Arup 2015). It includes measurements of health and well-being, economy and society, infrastructure and environment, and leadership and strategy, and offers 12 goals and 52 indicators. The Habitat III New Urban Agenda (UN 2016) provides a different, although consistent, framework for urban sustainability and resilience.

Sustainability and resilience functions are widely distributed within local governments. Individual functions are often

Figure 3. STAR Community Rating System. Courtesy STAR Community Rating System.

distributed in the appropriate department: recycling with solid waste, alternative transportation with transportation or public works, city buildings with facilities, emergency shelters with public health or public works. The home for sustainability and resiliency planning and coordination, and for filling the gaps that other departments do not fill, varies across local governments (see sidebar).

Disciplines, Training, and Credentialing

Sustainability and resilience practitioners come from a variety of disciplines and backgrounds. Local government sustainability professions are often members of the American Planning Association (APA), the Urban Sustainability Directors Network (USDN), and occasionally the International Society of Sustainability Professions (ISSP).

USDN is the most focused, with all of its core and associate members working on sustainability functions within North American local governments. In a 2016 survey, of USDN's 106 responding members and associate members, 19 (or 18 percent) hold master's degrees in planning (USDN 2016). See Table 1 for details.

It is clear that sustainability, especially outside of local government, is not dominated by planners. For example, the University of New Hampshire Sustainability Fellowship (previously the Climate Fellowship) serves students and graduates from all over the U.S. and a few outside of the U.S. by providing star students with field placements. Of the 95 fellowships it has awarded between 2008 and 2016, only 19 of the recipients went to work for local governments or local government nonprofit partners. Only eight of the fellows had academic planning backgrounds when they served. Of the fellows who have been out long enough to move on to careers, an even smaller percentage is working for local governments or nonprofit partners (UNH Sustainability Institute 2016).

However, within the planning profession there is an enormous interest in sustainability. The APA Sustainable Communities Division has over 500 members, more than one-third of whom are AICP certified. Based on the readership of APA publications and attendance at conference session on sustainability and resilience, there appears to be a much larger body of non-division planners who are also interested in sustainability and resilience.

Where Local Government Sustainability Lives

Sustainability and resilience functions are widely distributed within local governments. A number of cities across the country have established designated sustainability and resilience departments or offices. Most commonly, such entities are located within planning departments, public works or facilities and asset departments, but in some cases they stand alone as environment and sustainability departments.

In the planning department:

- Baltimore — Office of Sustainability: www.baltimoresustainability.org/
- Berkeley, California — Office of Sustainability and Environment : www.cityofberkeley.info/energy_and_sustainable_development/
- Cambridge, Massachusetts — Municipal Sustainability initiative: www.cambridgema.gov/CDD/climateandenergy/municipalsustainability
- Northampton, Massachusetts — Department of Planning and Sustainability: http://northamptonma.gov/924/Planning-Sustainability
- Portland, Oregon — Bureau of Planning and Sustainability: www.portlandoregon.gov/bps/
- San Francisco — Sustainable City initiative: http://sf-planning.org/sustainable-development
- Vancouver, British Columbia — Green Vancouver: http://vancouver.ca/green-vancouver.aspx
- In the public works or facilities and assets department:
- Ann Arbor, Michigan — Systems Planning, Sustainability planning area: www.a2gov.org/departments/systems-planning/planning-areas/climate-sustainability/Pages/Sustainability.aspx
- Madison, Wisconsin — Sustainable Madison: www.cityofmadison.com/Sustainability/index.cfm
- Oakland, California — Department of Public Works Sustainable Oakland initiative: www2.oaklandnet.com/government/o/PWA/o/FE/s/SO/index.htm. *Note: Oakland has a separate Chief Resiliency Officer/Deputy City Administrator who reports directly to the city administrator and focuses on more strategic resiliency efforts.*

As sustainability or sustainability and environment departments:

- Boston — Department of Environment: www.boston.gov/departments/environment
- New York City — Mayor's Office of Sustainability: www1.nyc.gov/site/sustainability/index.page
- Portland, Maine — Sustainability Office: http://portlandmaine.gov/1890/Sustainability-Office
- Seattle — Office of Sustainability and Environment: www.seattle.gov/environment/

The 100 Resilient Cities program (http://100resilientcities.org/) participants have a Chief Resilience Officer reporting directly to the chief executive, in accordance with program funding requirements. Chief Resilience Officers focus on strategic resilience efforts. Typically these are standalone positions separate from sustainability (e.g., in Atlanta, Boston, Boulder, New York, and Oakland), with a lot of overlap and close work with sustainability efforts.

Table 1. Urban Sustainability Directors Network advanced degrees

Local government core and associate member survey responses	106
Master of Regional and/or Urban Planning	19
Bachelor's or Master's in Engineering	11
Master of Science or Environmental Management	22
Master of Art, Architecture (1), or Public Health (1)	23
Master of Business Administration	8
Master of Public Administration or Public Policy	9
PhD (any subject)	2
Juris Doctor (JD)	8

Note: Includes the multiple advanced degrees some USDN members have

Source: Urban Sustainability Directors Network 2016

Education

Higher education is rapidly increasing sustainability-related educational offerings and specializations. This growth, however, has not been accompanied by a widespread consensus on content or curriculum or the creation of an accrediting board typical of professional programs, such as planning.

The Planning Accreditation Board (PAB) accredits professional planning programs in the United States, where most U.S. planners with an interest in sustainability and resilience are trained. PAB standards include values and ethics for "sustainability and environmental quality: environmental, economic, and social/political factors that contribute to sustainable communities, and the creation of sustainable futures" (PAB 2017).

The standards include many other basic building-block skill sets (e.g., planning process, quantitative and qualitative methods) required for sustainability and resilience professionals. While all schools are expected to teach about the meaning of planning, planning theory, planning law, history of planning, the future, and global dimensions of planning, there is no requirement that general knowledge includes sustainability or resilience.

The number of sustainability degrees offered in U.S. higher education is increasing dramatically. The Sustainability Tracking Assessment & Rating System (STARS), the most common framework for higher education institutions to evaluate their sustainability performance, has had astronomical growth in participants — from 55 in 2009, when it was piloted, to 812 in early 2017 (Hull 2017). While many sustainability programs reported to STARS are within planning programs, many more are in environmental science, a critically important part of sustainability but not the entire story.

Many of these programs are spreading out beyond their original roots to encompass more aspects of sustainability, and are often building exciting multidepartment and multidisciplinary collaborations and partnerships.

For example, the University of Massachusetts School of Earth and Sustainability brings together five different departments in two different colleges to provide sustainability collaboration, and its Sustainability Curriculum Fellowship brings together faculty from departments all over the University to share different perspective on sustainability curricula. Many programs, however, do not pay as much attention to the economic and equity aspects, nor do they use a systems approach. In addition, there is a lack of consensus about what should even be included in sustainability curriculum (Hull 2017).

Professional credentialing opportunities are increasing, but there is no clear credential that stands out for local governments. For planners, the American Institute of Certified Planners (AICP) credential is usually the first credential of choice. The AICP exam curriculum now includes sustainability planning, albeit as a very small portion of the AICP exam. The AICP Certified Environmental Planner (AICP CEP) specialty includes additional sustainability elements — an environmental analytical and integrated environmental planning framework and climate change, carrying capacity, public health, and sustainable energy curriculum — but it is primarily focused on environmental planning and is not a sustainability certificate. As of 2018, APA is no longer accepting applications for AICP advanced specialty certifications, including the AICP CEP designation, but it will continue to support and recognize existing advanced specialty certification credentials.

ISSP offers a Certified Sustainability Professional (ISSP-CSP) credential. It focuses on private, public, educational, and nongovernment organization practice, not specifically local government. While a few planners and sustainability professionals hold the ISSP-CSP certificate, it is still a rarity within local governments. For example, only two of 106 USDN survey respondents reported having an ISSP certification.

The U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) Accredited Professional (LEED AP) and LEED Green Associate are increasingly common for those working in sustainability. For example, of 106 USDN survey respondents, 18 are LEED AP and nine are LEED Green Associate (25 percent in total). LEED, however, covers only a portion of what sustainability and resiliency requires.

Skill Sets

The skill sets for sustainability and resilience significantly, but not completely, overlap with those for planners (see Figure 4). ISSP (2016), for example, identifies six core competencies: (1) core sustainability concepts, (2) stakeholder engagement, (3) plan sustainable strategies, (4) implement sustainable strategies, (5) evaluate and report sustainability efforts, and (6) adjust plans.

Engagement, planning, implementation, evaluation, and feedback, with slightly different subject matter, are fundamental to planning. To this we need to add expertise in the core competencies of sustainability, community economic development, social equity, environment; related analysis and synthesis

in the areas of carrying capacity, vulnerability and risk assessment, climate mitigation and adaptation, and health impacts; and a systems approach.

When John Muir famously said in 1911, "When we try to pick out anything by itself, we find it hitched to everything else in the Universe," he could have been summarizing the systems approach (Muir 1998). Sustainability, planning, and related education should consider all technical, institutional, social, and resource barriers as an interconnected unit.

From the design fields comes design thinking, an offshoot of system thinking: integrating solutions thinking into the system from the start. Sustainability education needs to stress that solutions cannot just come at the downstream end of a problem but should examine complex roots of our challenges. For example, a climate change solution focused simply on reducing energy use may ignore land-use patterns, institutional racism, consumption, and other critically important roots. This is the opposite of accepting path-dependent decisions we are typically forced to make in response to choices and forces set in motion long ago.

Equally important are the political skills and the passion to make things happen. Passion, however, must be tempered by an understanding of the need to engage all stakeholders and respect the political system.

A survey of Dutch, Spanish, and American planners (Kaufman and Escuin 2000) found that in spite of different cultural and legal environments, planners from all three cultures agreed that planning is ultimately a political action, although the European planners felt this more strongly. Understanding the politics of getting things done is required for all planning, but perhaps nowhere more than in the areas of sustainability and resilience, where professionals need to both engage and empower citizens and the political process, while taking the political and institutional risks necessary for a paradigm shift within that context.

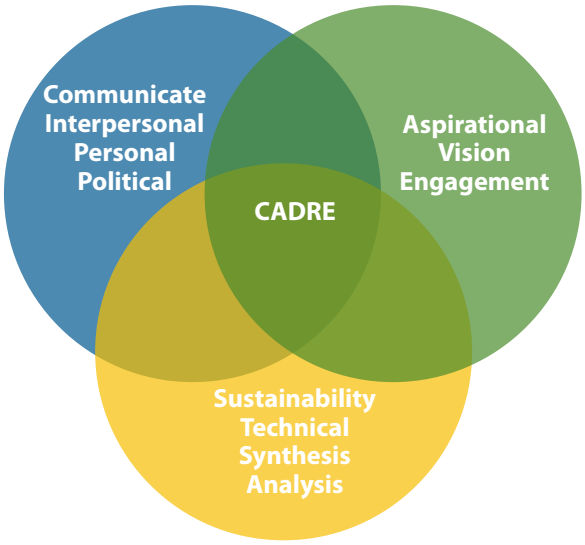

Figure 4. Skill sets to create a cadre of sustainability and resilience professionals. Credit: Wayne Feiden.

Leadership strengths can be divided into four domains: executing, influencing, relationship building, and strategic thinking (Rath and Conchie 2008). These are all important, to varying degrees, in both planning and sustainability. In the sidebar on pp. 6–7, Dory Reeves applies the lessons of her work identifying management skills for effective planners (2016) to sustainability and resilience.

Case Studies from Other Communities

Hundreds of communities are doing amazing sustainability and resilience work in every region of North America. The 20 U.S. cities from the first 100 Resilient Cities cohort, for example, are scattered throughout the U.S. Below are brief case studies of the first four communities rated "5-STAR Community as top tier achiever in national sustainability" out of the first 54 STAR-certified communities, representing 21 million people.

Baltimore (pop. 614,664), has a strong downtown with arts, sports, and entertainment, a vibrant waterfront, strong educational and medicine sectors, industrial activity, and an effective light rail and transit system. It is also a post-industrial city with major challenges from historical inequities, aging infrastructure, and limited economic opportunities.

The Office of Sustainability within the Department of Planning is staffed by planners and sustainability professionals. They oversee sustainability, climate adaptation, and disaster preparedness plans, food policy, floodplain management, and other environmental initiatives. It is the primary voice for sustainability within the city.

Key components: (1) dedicated staff to drill deep into sustainability, (2) a home within planning that provides a seat at the table for all things sustainable, and (3) a strong commitment to social equity that resonates with the community.

Cambridge, Massachusetts (pop. 110,651), is an exceptionally strong and vibrant city that is part of the Boston-Cambridge urban core area. It has one of the highest incomes of any urban core city in the U.S. and one of the most vibrant educational and high technology complexes anywhere.

Sustainability, including climate, energy, and transportation, is within community development — the home of most planning functions — in the environment and transportation division. Other departments share some aspects of sustainability, including public works, human services, and the City Manager's Office. Cambridge arguably has one of the strongest commitments to sustainability, climate adaptation, clean energy, and sustainable transportation of any major U.S. city.

Key components: A trifecta of (1) the integration of sustainability and planning to advance initiatives, (2) dedicated and skilled staff with leadership and political commitment in government and the community, and (3) a resource level that is the envy of most of its peers.

Northampton, Massachusetts (pop. 28,483), has a vibrant downtown and a high quality of life. Its economy is heavily

driven by downtown businesses, education, and medicine. The city has some of the opportunities and challenges of being a post-industrial middle-income city.

Sustainability primarily lives in the Office of Planning and Sustainability, among planners cross-trained with sustainability, home to the Sustainable Northampton Plan, comprehensive and current planning, open space preservation, bicycling, complete streets and alternative transportation initiatives, climate adaptation and vulnerability assessments, the health/active living connection, and most entitlements. Specific functions, however, are scattered around the city: energy and climate mitigation in facilities, recycling and stormwater in public works,

Management Skills for Effective Sustainability and Resilience Planners

By Dory Reeves

Resilience and sustainability are characterized by the complexity of interrelated systems; their reliance on multidisciplinary knowledge; and the ability to react to the varying nature of political responses at national, state, and metropolitan levels.

Effective sustainability professionals combine a "functionally linked complex of knowledge, skills and attitudes that enable successful task performance and problem solving" (Wiek et al. 2011). A sense of justice, perseverance, empathy, integrity, intellectual courage, and autonomy are needed by planners working in the field of climate change adaptation (George et al. 2010).

Research on the management skills for effective planners has focused on early-career planners and managers of early-career planners. Two skills are especially relevant when working with resilience and sustainability at any level, drawn from the 53 different self-management attributes identified in the study of what makes planners effective in the workplace (Reeves 2016).

Understanding the Role of Risk Characterization, Risk Management, and Risk Litigation: The examples of Hurricane Sandy in the aftermath of Hurricane Katrina; L'Aquila in Italy; more recently floods in Peru, Colombia, Australia, and New Zealand. Risk is a calculation of measured uncertainty. As an example, on April 6, 2009, the L'Aquila earthquake killed over 300 people and injured a further 1,500. It is estimated that 65,000 were made homeless. In October 2012, seven Italian seismologists were accused of providing "inaccurate, incomplete and contradictory" information. The authorities who pursued the seismologists stressed that the case was never about the power of prediction but the inadequate characterization of the risks and of being misleadingly reassuring about the risks facing a city (Zalin and Butti 2013). Planners need to understand and communicate the risks clearly and unambiguously.

Ability to Work as Part of a Multidisciplinary Team: Planners work in teams in different areas, such as policy, development management and implementation, and development plans. These planners may work primarily on their own, coming together from time to time to discuss with others, review progress, and plan the next stage. Multidisciplinary project teams are also likely to be set up in local authorities and large consultancies. In a consultancy, a planner may be working with engineers, architects, urban designers, project managers, and specialists in water and community resilience. Where a local government is developing policy responses to create a more livable or safe city, there may be interaction with psychologists, criminologists, statisticians, and safety and criminal justice specialists. (Reeves 2016, 68). Planners need to be able to communicate what they bring to the table.

Other important skills include:

- Ability to work with politicians and decision makers to find the technically right and politically acceptable solution
- Ability to keep an eye on the big picture
- Willingness to persevere when things are not working out as anticipated
- Hope and optimism, curiosity, and a willingness to keep learning
- Understanding the local indigenous context

Resilience work requires an openness to acknowledge situations, learn from mistakes, and keep moving forward. It calls for a high degree of personal control to meet a variety of challenges, and a commitment to see things through. Planners need to know where they are going and have the self-confidence to work towards their goals while also demonstrating flexibility as they develop relationships.

Personal and interpersonal capabilities were top of the list in the study of what makes early-career planners effective:

- Willingness to face and learn from errors and listen to feedback
- Desire to produce as good a job as possible
- Ability to admit when one does not know something
- Ability to listen to different points of view
- Ability to empathize and work productively with a range of people from different disciplines and social and cultural backgrounds
- Ability to interact positively with members of the public, citizens, and the community

Depending on the level of experience, a professional planner needs to demonstrate varying degrees of capability. Table 2 indicates these differences, from the entry-level planner who needs to show awareness and basic proficiency to the senior-level planner who might be an expert in the field.

Planners can continue to develop these relevant competencies through self-directed learning, self-reflection, mentoring, networking, and life-wide learning.

Table 2. Key management attributes for sustainability and resilience

Attributes and capabilities	*Awareness*	*Experience Levels*			
		Basic	**Proficient**	**Advanced**	**Expert**
Understanding the role of risk and litigation	Understand there are risks associated with resilience and sustainability	Identify the nature of risks and contribute to a basic risk assessment	Complete a basic risk assessment and contribute to more complicated assessments	Undertake complex risk assessments and involve multidisciplinary teams	Conduct peer review risk assessments across a range of planning practice
Ability to work as part of a multidisciplinary team	Understand the role and contribution of the different professions	Participate constructively in multidisciplinary teams	Manage multidisciplinary teams and handle conflict within and between them	Organize and lead multidisciplinary teams and positively resolve conflict	Adapt the leadership style to suit multidisciplinary teams and avoid disruptive conflict
Willingness to persevere when things are not working out as expected	Understand when outcomes are not being met	Work harder and longer to achieve expected outcomes	Change approach to achieve outcomes	Stand back and make adjustments to plans to achieve outcomes	Forward thinking with monitoring and evaluation build into all plans from day 1
Ability to work with politicians to find the technically right and politically acceptable solution	Understand the political nature of resilience and sustainability issues and processes	Engage at the political level, producing briefs and committee reports	Commission practical studies; ability to summarize effectively	Facilitate cross–political party discussions	Work effectively across from local to national levels
An ability to keep an eye on the big picture	Seek information on how the project is progressing and own performance	Communicate with close colleagues on how the project is progressing	Communicate regularly with all involved in the project to confirm things are working as planned	Communicate regularly with all involved and checks for any unintended outcomes	Consider longer-term effects, beyond current projects and on internal and external environments
Ability to develop and use networks of colleagues to help solve workplace problems	Understand the value of networks and the mechanisms	Engage with and use professional networks	Actively seek appropriate networks and contribute positively to them	Develop relevant networks and help colleagues make connections	Use a variety of options to use, lead, and develop networks as necessary

public health in health, and community development in the mayor's office.

Key components: (1) integration of sustainability and planning to advance initiatives; (2) a track record that allows risk taking and reinforces leadership, political, and community commitment; and (3) the ability to identify low-cost and grant-funded projects that do not require large amounts of local resources.

Seattle (pop. 704,352) has a rapidly growing population and employment, a thriving tech sector, a vibrant downtown and waterfront, and a high quality of life.

Sustainability and the Environment is a standalone department. Seattle is the only 5-STAR community where sustainability is not integrated into planning. The office focuses on climate, energy, equity, sustainable buildings, food, and stormwater. Other functions, such as comprehensive planning, are elsewhere.

Key components: (1) sustainability independent of planning but with strong coordination and communication, (2) dedicated staff that shine a light on issues that otherwise might be ignored, and (3) a commitment to sustainability that comes from all levels of government and the community.

What Planners Can Do: Action Steps

There are a few common steps that are especially important to building sustainability programs and perspectives in planning

agencies. Success is never just about technical work, but also about building the narrative internally and externally.

1. **Use vision and mission statements for all agencies.** These statements are common for plans but less common for departments. Every department should disclose its aspirational and achievable mission. Mission-driven offices and staff are more productive and have improved opportunities to engage and empower stakeholders openly and productively. At a personal level, professionals should identify their personal missions or risk running adrift in their careers.
2. **Think about the organizational home of sustainability and resilience.** Sharing a home with planning encourages collaboration and is consistent with holding a seat at the city-wide policy table. Almost every model of organization, however, has its advocates and successes. All models can work when there is strong communications, cooperation, and shared purpose; no models work without that.
3. **Undertake internal and external assessments.** Through the city manager, planning department, or auditor, governments should do an internal review of all sustainability-related functions to identify responsibilities, gaps, and opportunities. Such a self-study should include a transparent web-based version for the public, along with benchmarking and goal setting. An internal management review should identify opportunities for improvement. If the internal review is not sufficient, an outside review can build on the self-study. Such reviews can be by a consultant, think tank, or a panel of respected peers invited from comparable communities. These kinds of approaches are discussed in more detail in PAS 582, Local Planning Agency Management (Feiden 2016).
4. **Encourage sustainability and planning accreditations.** This process does not currently exist for planning and sustainability, but it exists in many other local government fields (e.g., health, police, fire, and parks). While the process and resources are daunting, professional organizations can form their own accreditation process based on some norm of what is expected and embracing the enormous diversity of communities. This provides the credibility needed for resources, identifies what works, and provides an opportunity for new ideas.
5. **Use self-reporting and third-party reviews of substantive areas (STAR Communities or the Cities Resilience Index).** These build accountability, institutionalize sustainability, provide some protection from political changes, offer a policy framework, and can build public consensus.
6. **Incorporate sustainability and resilience duties into job descriptions and titles.** This helps attract qualified staff and institutionalizes those duties, responsibilities, and perspectives.
7. **Invite outside teams or panels to engage the community in sustainability and resiliency.** APA Community Planning Assistance Teams (CPAT), AIA Sustainable Design Assessment Teams (AIA SDAT), Design and Resiliency Teams (DARTs), Urban Land Institute Advisory Service Panels, and other such efforts can strategically provide an intense spotlight and spark community imagination, champions, and policy change.

Figure 5. The slogan used by San Francisco State University: "Sustainability is a state of mind." Photo by Wayne Feiden.

8. **Build community conversation and community champions.** Such conversations help advance the necessary paradigm shift. One example is the slogan San Francisco State University used in an advertising campaign: "Sustainability is a state of mind" (see Figure 5).
9. **Contribute to efforts to strengthen the sustainability and resilience focus of AICP exams.** Institutionalizing these areas into our credential system helps demonstrate that planning is up to these tasks.
10. **Bring a professional voice to higher education about needed sustainability and resilience offerings.** This will advance the relevance of those offerings.
11. **Work with the Planning Accreditation Board (PAB) to add a stronger sustainability and resilience focus to the planning curriculum.** PAB guidelines help set the discussions for what planning education should include.
12. **Do not allow sustainability and resilience to be a professional box.** All planners and all local government officials need to integrate this perspective into their work.

Conclusion

The planning profession has embraced sustainability and resilience, and many of the best success stories are being led by and told by planners. Given how fast the field is growing, it may be argued that planning institutions have not always created the necessary institutional changes, creating potential gaps, unevenness, and uncertainty.

Sustainability and resilience brings the need for some new skill sets. Some (e.g., law, public health, and engineering) are outside of planning and may best be addressed by different professionals. Many of these skills, however, are already in the hands of planners or could easily be added.

The failure to fully address sustainability and resilience in planning creates a risk of not fully integrating sustainability and

resilience into all actions and of leading emerging professionals to reject existing institutions as being insufficient to their needs.

About the Authors

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Dory Reeves, BA (HONS), MA, PHD, MRTPI, is professor of planning at the University of Auckland. Her "Management Skills for Effective Sustainability and Resilience Planners" sidebar in this *Memo* grew out of her 2016 book, *Management Skills for Effective Planners*.

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