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Abstract

To understand the creation and propagation of knowledge in planning, this research provides the first look at planning specialization development. In assessing planning's educational response to internal expertise, federal mandates, and historic precedents, we queried the seventy-six accredited planning schools on the evolution of concentrations and certificates offered from 1950 to the present day. We identify pedagogical trends by following the arc of program creation and retirement, intersectionality, and prevalence. Drawing parallels from the most well-established subfields of social and physical planning, this paper offers recommendations for formalizing new knowledge, such as food systems planning. We conclude with the observation that continued innovation and diversity of specializations is a key to planning's resilience at the nexus of an ever-evolving constellation of fields.

Keywords

education, knowledge creation, professionalization, politics and society

Introduction

Harvey Perloff confidently proclaimed in the 1950s that educators should train planners to be "generalists with a specialty" (Perloff 1957, 35). This conception crystallized the justification for university-based planning schools that more than doubled in the following two decades. The educational core integrated knowledge about planning, cities, physical design, and society using advanced scientific analysis and hands-on experience in practical settings. Perloff's distinction was later enshrined with planning school accreditation for core curricula (Stiftel 2009; Planning Accreditation Board 2012). Decades of deliberation included arguments about the theoretical coherence (Friedmann 1996), ethical quality (Wildavsky 1973), practical efficacy (Krueckeberg 1984; Myers and Banerjee 2005), and professional relevance (Dalton 2007; for review, see Dawkins 2016) of the integrated planning core. Nevertheless, the idea that a planning education should focus on a basic core remained.

But what about planning specializations? Planning educators conceive specializations as part of planning school curricula. They approve and teach specialized knowledge. Does the emergence and decline of a specialization respond to shifting demands for knowledge from the profession, government, university, society, or some combination? This research tracks the rise, fall, and evolution of specializations over time and in relation to broader trends in the field of planning. We offer some provocative connections between changing educational demands and professionalization advance or decline. Specializations may play a more central role in planning education and the profession then previously understood.

The Historical Underpinnings of Planning Specializations

To begin, we briefly review the history of specialized knowledge within the rise of planning pedagogy, showing how the field broadly responds to its pre-professionalization origins. This background information provides context to later findings and draws attention to two main forces that shape the profession: planning's unique position at the nexus of multiple applied and scholarly disciplines, and available funding.

The basic ideas for professional planning grew out of efforts to reconcile the diverse views of multiple disciplines (architects, engineers, doctors, lawyers, social workers, and civic activists), whose different ideologies (socialist, monarchist, liberal, and conservative) and targets for reform ranged from Mary Simkhovitch's (1909: 104) focus on social integration through public housing to Sir Raymond Unwin's

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(1911: 103) vision for low-density development integrated with parks. The professional focus settled on long-range, purposeful master plans (Peterson 2009). Professionalization at the turn of the nineteenth century saw the field negotiate for sanitation and civic-beauty duties with a host of other agencies and professions (Peterson 2009). Where planning lost some purview over city functions to public health and law (Corburn 2004, 2007; Brinkley and Vitiello 2014), allied fields also helped spur planning theory and practice by contributing new ideas, such as those developed by sociologists at the University of Chicago (Park, Burgess, and McKenzie 1925). First-generation planning schools continued the multidisciplinary approach, operationalizing lessons from other disciplines in the making and executing of plans (Krueckeberg 1985). But just how does planning vie for ownership over specialized knowledge?

Power structures, public mandates, and funding also influence the growth of planning as a field. As early as the 1808 Gallatin Plan, the federal government made and implemented plans shaping infrastructure across the United States (Fishman 2000). By expanding the decennial census in 1910 (MacDonald 2008), the government aided planners in analyzing demographics and justifying estimates of future urban growth at every scale: the New York region (Pearl and Reed 1923), the City of Cincinnati (*The Official City Plan* 1925), and the suburb of Lansing (Bartholomew 1921). Perhaps most important was Roosevelt's New Deal of the 1930s, which used specialized planning for a wide assortment of programs and projects: interstate highway routes, natural resource conservation, public works, housing development, and social welfare services (Clawson [1981] 2013; Bannister 1992; Mohl, 2003). During the postwar boom, the federal government required plans to justify and order the commitment of federal funds for infrastructure projects (Scott 1969). The availability of generous federal funding for these plans (Section 701 of the 1954 Housing Act) fueled the explosion of the planning profession. Planning employment skyrocketed from 600 in 1960 to more than 9,589 by 1970 (Beauregard 1985). Another testimony to the influence of federal initiatives is the defunding of planning and the social sciences in the 1980s (Sawicki 1988). Student interest and planning jobs plummeted. This research explores the role of specializations in reviving the field. Today, 38,000 planners are employed; the majority work in local government (>24,000) and state agencies (3,880) to assist elected officials with policy development and the curation of comprehensive development plans (Bureau of Labor Statistics, U.S. Department of Labor 2017).

Undoubtedly, planning and the constituents it serves have both changed dramatically since the birth of the profession. More than half the world's people now live in towns or cities. Since 1990, the global urban population rose by 1.6 billion between 1994 and 2014. More women are in the workforce, creating dramatic alterations in economies, job transit, and needs for social services, like childcare. The rise of telecommunications, mobile phones, and the internet is shifting work patterns. The economy has morphed from one of an industrializing nation to one focused on technology and "the creative class" (Florida 2004). And with the economic transitions come pressing needs to maintain old infrastructure while responding to market changes and growing "sharing economies" (Lessig 2008). Modes of transportation are changing with adoption of biking and skateboarding (Fang 2015). Simkhovitch's focus on migrants is ever pressing as the number of people traveling from their home countries in search of new opportunities rose from 154 million globally in 1990 to over 232 million in 2013. Congestion is still evident in the growth of slums worldwide, but New York's tenement dwellings have been replaced by public housing projects and persistent socioeconomic inequities (Bloom 2014). At the same time, global population growth is slowing (United Nations Economic and Social Council 2014) because women, particularly adolescents, are having fewer children as contraceptive use is on the rise (Singh and Darroch 2012). Life expectancy is increasing, necessitating a planning focus on the needs of older populations (Rosenberg and Everitt 2001; Myers and Ryu 2008; Buffel and Phillipson 2012). Deaths from noncommunicable diseases are on the rise and are most closely associated with poor nutrition (Beaglehole and Yach 2003), which spatially clusters in low-income and minority neighborhoods (Brinkley, Raj, and Horst 2017). On the other hand, some problems have stayed the same. Dennis O'Harrow (1967) noted at the 58th City Planning Conference that the problems the profession originally discussed at the turn of the twentieth century were much the same being discussed in 1967: "ugly overhead wires, advertising signs, congestion in housing and congestion in streets, [and] inadequate parks and playgrounds" (n.p.). How has the education of planners reflected these shifts and persistent planning problems?

Perloff's student John Friedmann (1996) reviewed core curricular requirements across planning schools in light of the dramatic demographic and technological shifts since the birth of the profession. He found the core requirements covered so many different topics that the core could be anything and everything, and so, nothing. He complained that this diversity was unresponsive to demographic and social change. Without having studied specializations, Friedmann concluded that planning students learn to master a specialty as the practical core. A decade later, Dalton (2007) surveyed almost two thousand planners and found that 88 percent agreed with Harvey Perloff's statement that "good planning requires generalists who are able to integrate perspectives from a number of specializations" (Perloff 1957, 43). Perloff's conception remained intact. Still, the role of specializations in the evolution of planning education and practice is largely unexamined until now.

Methods

This research traces the arc of development for specializations among U.S. planning degree programs. We adopt a more robust

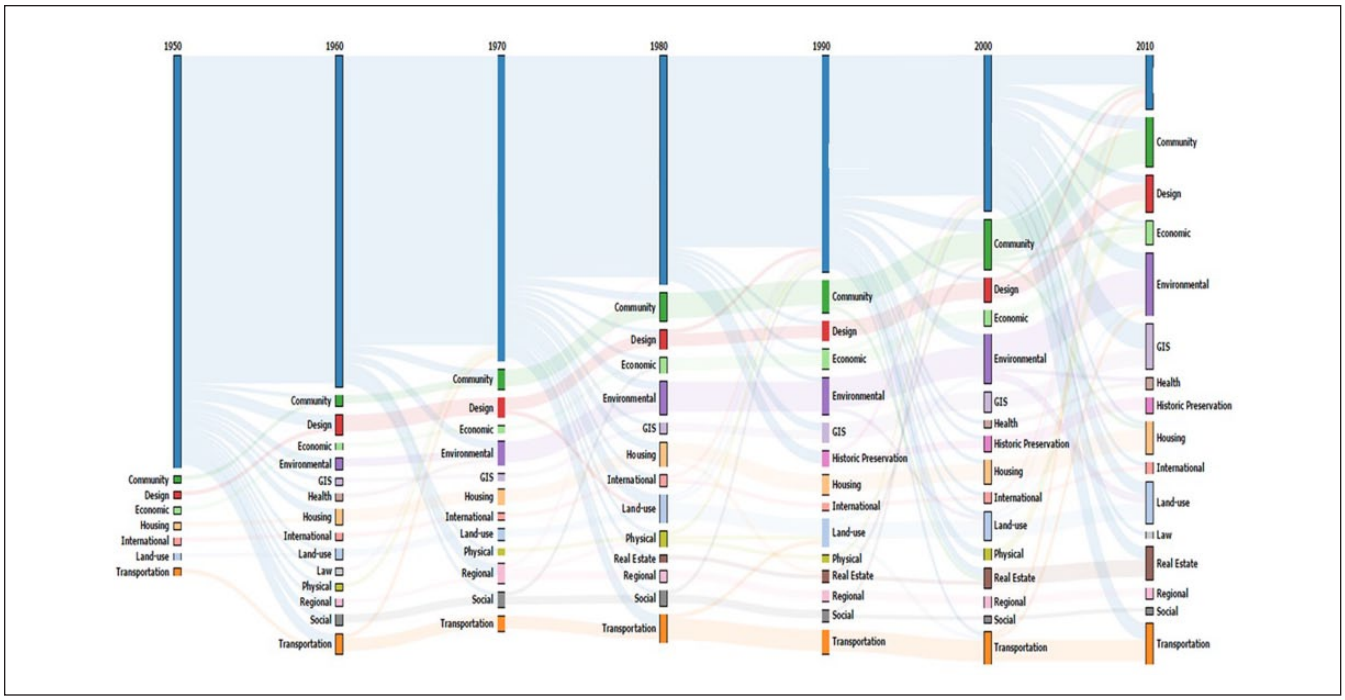

Figure 1. Timeline of specialization continuity and change. The software we use for this is frequently used by universities to track students changing majors over time. We use it here to track changes in specialization offerings over time. The "undefined" term shows a diminishing indigo-colored bar over time as new planning schools add new programs over time.

approach to measuring what counts as a specialization than others who have studied planning school curricula. Specializations include topical learning activities identified as a concentration, focus area, theme, specialization, or certification provided by a planning school and that include two or more required courses. We did not use the specialization listings provided by the *ACSP Guide to Graduate Education in Urban and Regional Planning* due to unknown variance in coding reliability and accuracy (Susskind 1974; Brooks et al. 1976; Patton and Reed 1986; Patton 1989). For instance, Pivo (1989) and Patton (1989) used the same specialization data but reported different numbers for transportation offerings.

Survey

Author A compiled 332 specialization listings from individual program websites for the seventy-six accredited planning schools in 2016. The nominal value for each unique label is presumed equivalent across schools. The data set does not capture specialization variation in the scope and quality of instruction. To verify data and triangulate findings, program chairs and coordinators received an Internal Review Board–approved email survey and up to three invitations to participate in a phone interview. Respondents were asked to validate the current listed specializations collected for the study and to answer questions on program initiation and retirement (see the appendix in the online version of the article).

Thirty-one of the seventy-six program chairs or directors responded. The reasons for nonresponse include an understandable unwillingness to shoulder the burden of doing the research and the unavailability of institutional history. We suspect the faculty in many programs did not plan for or track the creation and retirement of specializations over time. The Planning Accreditation Board (PAB) developed a standard for planning schools, requiring faculty to prepare a strategic plan linking educational purpose with program requirements and administration (PAB 2012). The PAB, however, does not evaluate specializations, so systematic reporting for these curricular changes likely escape attention.

A timeline of programming inception, change, and retirement (Figure 1) is based on telephone and email survey responses from thirty-one schools. Author A composed a Venn diagram of overlapping specialization title themes (Figure 2) from the full list of seventy-six schools and a table detailing the frequency of themes within specialization titles (Table 1, Figure 3).

Specialization titles often include several words, squeezing important information into a single label. We capture the hidden data by disaggregating the "themes" in a title. For instance, the specialization title "Housing and Community Development" is disaggregated as three contributing themes: housing, community, and development. For simplicity, some variations on themes (plural and adjectival forms) were combined. For example, *regional, regions*, and *region* were combined into one theme. Other closely aligned themes were left

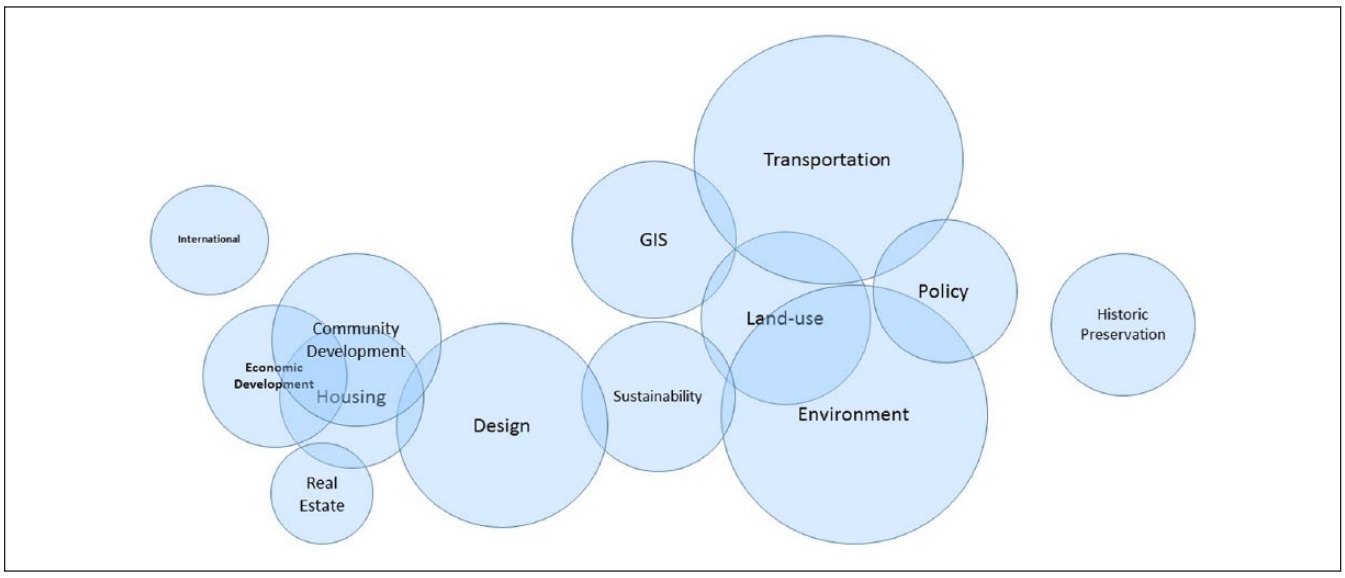

Figure 2. Venn diagram of the overlap in themes across the thirteen most common specialization offerings. Specialization offerings rarely included more than three themes. An exception exists in the University of Pennsylvania's "S.M.A.R.T. Cities" concentration, which combines land use, environmental planning, sustainability planning, and geographical information systems.

Table 1. Frequency Table of Seldom-Mentioned Themes within Specialization Titles.

Number of Mentions	Theme
3	Administration, Built, Energy, Geospatial, Global, Growth, Heritage, Natural, Non-profit, Organizations, Preservation, Public_Policy, Self-Designed, Social, Spatial
2	Advocacy, American, Areas, Change, Comprehensive, Equity, Finance, Hazards, Geography, Indigenous Metropolitan, Technology, Tropical, Remote_Sensing, Urbanism
1	Affairs, Applications, Arts, Assistance, Budgeting, Climate, Collaborative, Comparative, Customized, Dimensions, Disaster, Ecological, Evaluation, Facility, Food, General, GeoDesign, Geoinformatics, Globalization, Golf, Governance, Green, Group, History, Horticulture, Human, Humanitarian, Indian, Independent, Interdisciplinary, Involvement, Justice, Latin_American, Livable, Managing, Methodology, Minerals, Mobility, Modeling, Multi-regional, Non-governmental, Parks, Placemaking, Practice, Private, Process, Recreation, Revitalization, Risk, Security, Small, SMART, Survey, Theory, Tourism, Town, Transit, Tribal, Vulnerability, Visualization, Watershed, Wetland, Water

disaggregated to preserve the nuance in their meaning. *Geospatial, geographical information systems* (GIS), *remote sensing*, and *geoinformatics* are all closely aligned in meaning but vary enough to merit their own theme categories. GIS, for example, does not always entail remote sensing. We visualize the variation and frequency of 129 themes within the 332 specialization offerings using a frequency graph (Figure 3) and table (Table 1). There are sixty-five themes mentioned only once in specialization titles. This approach differs from earlier studies (Patton 1989; Pivo 1989) by focusing on themes within program titles, not precoding each offering as one specialization to be tallied. To limit bias from grouping specializations together into categories, we present nominal data.

The Venn diagram (Figure 2) visually displays the combination of specialization themes within their offering. For example, if two specialization offerings are listed as "Housing and Community Development," they would merit a one-unit increase at the intersection of Housing and Community in the Venn diagram. Where only one instance of overlap was noticed, it was not included in the Venn diagram to simplify visualization. We selected the thirteen most frequent planning specialization themes. "Regional Planning" missed the cutoff. This theme occurred ten times. Combinations included 299 of the 332 specialization offerings in the database, leaving 31 specialization offerings, such as "Tourism Planning," uncategorized. The size of the thematic circles displays frequency. The visual display of the thirteen most popular specialization combinations enables the viewer to see the connectivity and overlap among these themes.

The timeline is based on the input of 110 specialization offering histories from thirty-one schools. Programs with multiple entries in their titles proved difficult to situate. For example, a "Housing and Community Development" program that

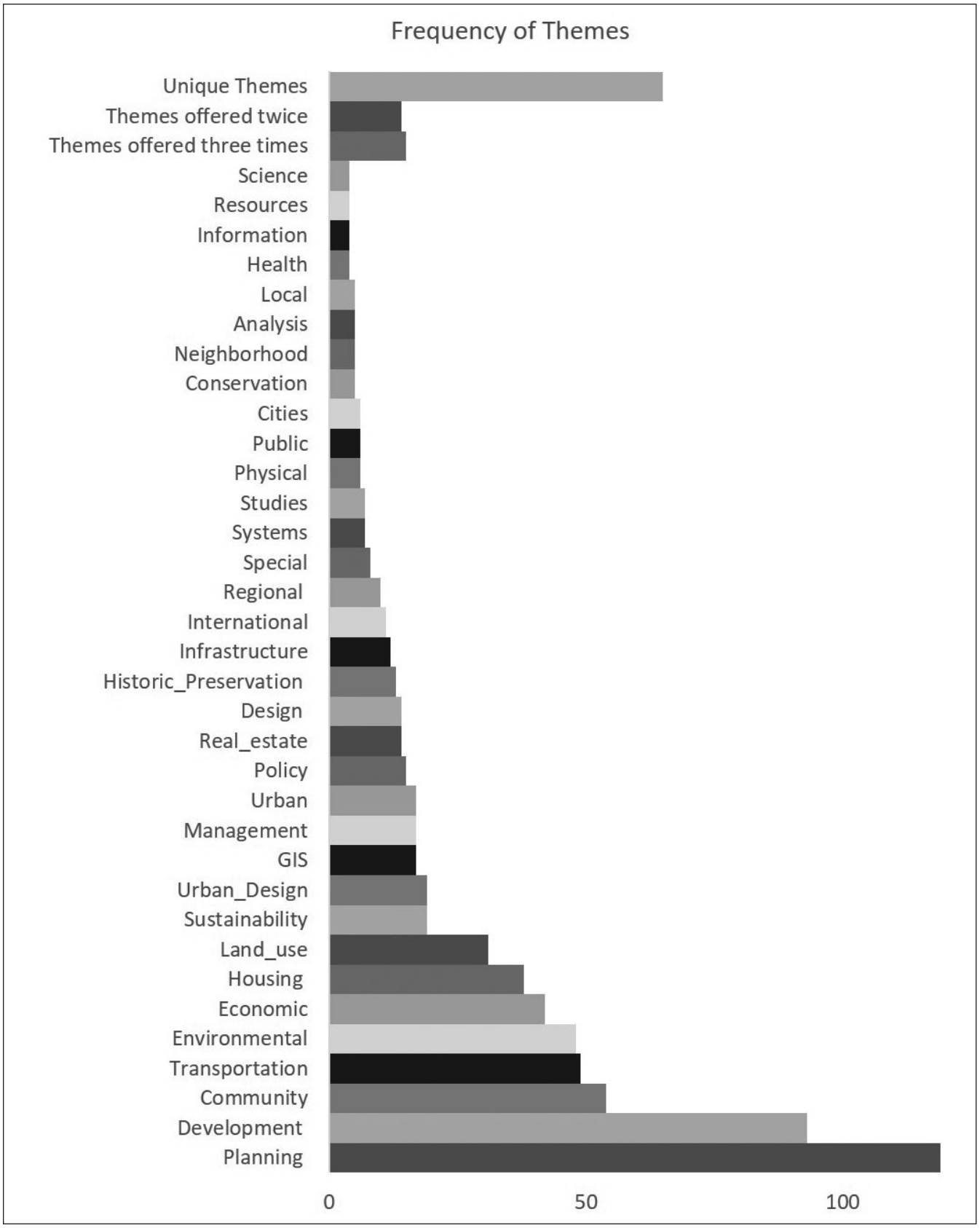

Figure 3. Total number of theme mentions with specialization titles. Please see Table 1 for a full list of themes found in categories mentioned three or fewer times. The base of the frequency graph shows the most common themes, with planning mentioned 119 times in specialization titles.

switched classification to a "Housing and Economic Development" program was divided into two entries, one charting the continuation of the Housing theme and the other charting the change from Community to Economic Development. In this sense, the number of entries does not strictly correlate with the number of program offerings but does correlate with the number and continuation of specialization themes offered. The visual display of ten-year intervals enables the viewer to track the changes in the frequency of specialization themes for thirty-one planning schools. The increase in specialization frequency includes the change of specialization for the original planning schools but also new schools and specializations added during the sixty-year window. Only specializations that persisted over two time periods and at two or more schools were included in the timeline construction to help simplify the visualization. Programs that were mentioned only once, for a single decade, or at only one institution were left off the timeline to focus on broader trends. Timing is coded by decade. If a program was offered between 2000 and 2009, it falls into the 2000 category. The timeline was created with the Ribbon Tool available through University of California–Davis, Center for Educational Effectiveness.

Limitations: What's Not in a Name?

This initial research into specializations focuses on broader temporal trends in specialization offerings in relation to trends in the planning field. Future research can situate findings for each school with variations across schools (region, age of program, affiliated centers and schools), faculty characteristics (number of tenured faculty, research interests), student characteristics (enrollment, demographics), and other offerings: doctoral programs, capstone projects, internship offerings, and joint degrees with other schools, such as public health or law. Such a landscape of planning offerings is lacking even with regard to understanding the evolution of core programming and represents an important area of inquiry in understanding how expertise is shaped. For example, as we learned through interviews, many schools use a research-to-practice tactic to pioneer areas of specialization by offering new seminars and studio projects later refined and expanded over the years. This educational effort is captured in interviews only if it yielded a specialization and is otherwise not recorded. To this end, planning schools with more faculty tend to offer more specializations. These schools may be underrepresented in Figure 1 because fewer administrators could find documentation or remember the first specializations established with the school. At the same time, the specialization themes from schools with larger faculty bodies are overrepresented Figures 2 and 3 because such schools tend to offer more specialization programs.

Some planning schools do not offer specializations, others offer but do not require, others require but do not label, and still others allow more than one specialization. Future iterations of this research may wish to parse specializations by number of required courses and units. Like the studies by Pivo (1989) and Patton (1989), other limitations to our approach are that title words may not accurately reflect the knowledge conveyed in terms of syllabus content, teaching efficacy, specialization enrollment, material comprehension, student career trajectory and usefulness of specialization content to future career. We hope future studies will build on this initial data set and findings.

Findings and Discussion

The Prevalence and Scope of Specializations

Planning programs approach specialization differently. Only three schools do not offer specializations, and many encourage students to specialize in more than one topic. At University of Louisville, students can specialize in one *or two* of four areas. In addition, many schools offer certificates, and some create specializations in partnership with community groups or across departments in conjunction with joint-degree programs.

Very few schools do not require specialization (n = 9). These schools offer electives and certificates but allow students to graduate without a declaration of specialized planning knowledge. For example, Kansas State University offers electives but does not include a track. Tufts does not require students to declare a specialization but provides elective course offerings in five broad topic areas: sustainable environment, social justice and community development, policy and governance, built environment and design, and methods and techniques. Though most schools provide predesignated track names for specializations, many schools allow students to create their own specialization labels. For the University of Virginia, this is the only option: "Given the changing nature of planning practice, students now have the opportunity to set up their own tailored concentrations" accounting for fifteen of the forty-nine required credit units (University of Virginia 2017, 2).

The portion of credit hours also varies widely in relation to other program requirements, such as capstones, electives, and internships. The University of Puerto Rico requires only six of the forty-five credits from special-emphasis topics. Twenty-four credits are required for core, six for an applied project, and nine for electives, which may or may not synch with the special-emphasis track. Specializations make up a larger portion of total credits at other institutions. Texas Southern University requires twelve credits from specializations and twenty-four from core. In some programs, required curricular elements are not credit based. For example, Virginia Commonwealth requires twenty-seven core credits, twenty-one electives, and an internship, which does not receive credit. There, electives can be "general," a student-designated theme, or one of four preorganized "faculty-defined areas of specialization" (Virginia Commonwealth University, 2017). Such variations make it difficult to report what proportion of the curriculum is core in relation to specialized knowledge or other requirements, much less how students utilize such offerings in relation to requirements.

Planning programs averaged four specialization offerings containing seven specialization themes. These figures are comparable to Patton's (1989) findings of an average of five specializations per school. In 1984, a total of 397 named specializations were being offered by seventy-three schools (Patton 1989). In 1988, 530 named specializations were being offered by eighty-seven schools (Patton 1989). Today, 332 specializations, containing 129 themes, are offered by seventy-six schools. Many specializations are combinations of nomenclature. For example, one program might offer "Community Housing and Economic Development," while another separates out these topics into specializations in "Housing Development," "Community Planning," and "Economic Development." Such distinctions in this research allow for a more nuanced view into the transformation of specializations than previous attempts using the *ACSP Guide to Graduate Education in Urban and Regional Planning.* The frequency table (Figure 3, Table 1) captures the number of theme mentions in specialization titles, while the Venn diagram (Figure 2) indicates the intraoverlap of themes within each specialization offering. The timeline (Figure 1) shows the creation, retirement, and crossover between specialization themes.

Visualizing the Emergence, Demise, and Persistence of Specialization Themes

As early as 1950, planning schools included specializations tied to social sciences, design, and spatial planning (Figure 1). Hemmens (1988) offered a developmental account of initial specializations, an interpretation relevant for discussion of the next three decades as well.

> Land use planning was the established specialization in the 1950s. Research and development of textbooks helped establish this as a specific technical expertise. Housing was the next specialization to be developed, with much of the early doctoral research in planning on this topic. Transportation followed quickly in the early 1960s, stimulated by developments in planning practice, especially the use of computers in traffic assignment and land use forecasting. Social policy planning emerged as a specialization in the late 1960s with the support of federal funds for social health planning and in response to the stimulus of federally funded social programs in cities. Environmental planning followed in the 1970s. Economic development planning was increasingly broken off from physical planning as a separate specialization in the late 1970s and is still the "new" specialization in planning schools, although real estate analysis is threatening to further subdivide the field into a new specialization. Along the way there were brief efforts to create other separate specializations such as manpower planning, education planning, and health planning, which generally did not survive. (p. 88)

The timeline (Figure 1) deviates somewhat from Hemmens' account. Social and physical specializations have similar starting points, legitimizing both as integral to the origins and continued advancements of the profession. The division between social and physical planning is further seen in the overlap among specializations (Figure 2). The Venn diagram (Figure 2) displays the frequency, alignment, and overlap among the thirteen most common specialization themes, allowing us to visualize the structure of core specializations as they relate to one another and form the scaffolding of specialized knowledge within the profession. The divide between social and physical planning is evident in this scaffolding. The distinction between the social and physical planning themes mirrors the famous feud between Mary Simkovitch and Benjamin Marsh's vision for social planning and Fredrick Law Olmsted Jr.'s vision for physical planning (Peterson 2009). The prominence in frequency of social and physical planning themes (Figures 1 to 3) indicates the staying power of these initial focuses nearly 110 years since the birth of the profession. The historic underpinnings of such dominant specializations help explain why scholars often search planning history for the legitimacy and lineage of newer specializations (environmental planning, Daniels 2009; food planning, Vitiello and Brinkley 2014).

The distinction between physical and social planning is reified as outgrowths of more specialized planning knowledge develop. We offer a snapshot image of the nominal linkages in play. Physical planning has spawned new, overlapping specializations that are entirely distinct from those engendered by social planning (Figure 2). As Patton (1989) previously found, the majority of specializations cluster in the tightly linked physical planning themes of Transportation, Land Use, and Environmental Planning (Figure 2). The disciplinary theme of GIS overlaps with Transportation and Land Use, presumably due to its powerful visual analytics for predicting spatial processes (Figure 2). Policy overlaps with Transportation and Environmental Planning, reflecting the reliance in these areas on federal and state laws (Figure 2). The prominence of policy may also reflect attachments to policy analysis as a discipline and method (Sawicki 1982). Conversely, the social planning cluster contains the social planning specializations of Community, Housing, and Economic Development (Figure 2). The tightly linked social planning evolution is further evidenced in the timeline (Figure 1), which shows that economic development is an offshoot of social planning specializations, not physical planning as Hemmens (1988, 88) supposed. The lack of linking themes is also telling. Not one school offers a "Transportation and Community Development" specialization despite the obvious relationship between transit and growing (or subdividing) communities.

Design: A Bridge or a Bottleneck?

Design and sustainability specializations link the two camps. Though the large disciplinary theme of Design aligns Sustainability with Community and Housing, it is largely autonomous, reflecting design's early disciplinary difference as an offshoot from architecture at the birth of the profession (Figure 1; Kreditor 1990; Dagenhart and Sawicki 1992).

Other planning specializations may be not outgrowths but islands. Historic preservation stands apart, reflecting its unique history (Figures 1 and 2). The creation of the National

Trust for Historic Preservation in 1949 and National Historic Preservation Act in 1966 (Tyler, Ligibel, and Tyler 2009) expanded the reach of this specialization beyond its distinctive lineage from museum curators, collectors, genealogists, and historic conservationists to include planning tangentially. Similarly, international planning themes rarely overlap with other planning specialization themes (Figure 2), presumably due to a unique theoretical and practical lineage, which, though small, has historic roots in the founding of professional planning specializations.

The 1960–80 Interval

The 1960s marked challenges for the growing planning profession as new planning schools came online and public opinion about the role of planning shifted. Active federal support for housing and community development planning increased public interest and fueled planning school formation and enrollment. Planners and administrators acting as planners, like Robert Moses, gained unprecedented power over development projects (Caro 1974). Large-scale projects and urban renewal prompted dramatic inner-city riots, major civil rights legislation, and the formation of a federal Department of Housing and Urban Development along with a host of other federal programs designed to remedy housing segregation and poverty in urban and rural areas, paralleling the expansion of community and housing specializations. Concurrently, local protest movements inspired criticism of planning, epitomized by Jane Jacobs' (1961) bestselling book, *Death and Life of Great American Cities*. Jacobs compared planners to early nineteenth century doctors who used bloodletting to treat patients, and she charged them with malpractice (Jacobs 1961, 12–13).

The challenge that planning educators faced in the 1960s was imagining planning as comprehensive enough to embrace both national and local agendas while attracting students to new programs. Planning scholars responded by conceiving a more adaptive, democratized core planning process by including the input of sponsors, clients, and stakeholders (Susskind and Cruickshank 1987; Forester 1989). As the core reorganized, specializations proliferated. Knowledge innovation is seen in the rise of planning specializations in health, law, social planning, physical planning, GIS, environment, and regional planning (Figure 1). Health planning responded to community-focused health provision plans and pressures on urban hospitals as households moved to the suburbs (Ford 1981). The legitimacy and ubiquity of zoning and subdivision regulations among increasing numbers of local governments spawned an interest in planning law. Environmental conservation became a focus for long-term planning as the perception of water and air pollution shifted from inevitable side effects of development to problems susceptible to purposeful regulation. Regional planning emerged in the 1960s as Clarence Stein (Larsen 2016) and other faculty introduced the discipline of regional science. Federal funding of 701 comprehensive planning funds for metropolitan planning agencies drove demand for planners prepared to work at the regional scale, particularly in transportation and land use (U.S. Advisory Commission on Intergovernmental Relations 1973; Boyce 2004). Subsequent decades would see regional planning wane from its growth spurt in the 1960s as transportation and land use grew in favor (Figure 1).

As conservatives reigned in the liberal welfare state in the 1970s, planning specializations saw limited expansion (Figure 1). Individual themes, such as law and health, dropped away. Nonetheless, successful mobilization of environmental sentiments around Love Canal spurred creation of the Environmental Protection Agency and demand for specialized environmental impact assessment (Graham 2000; Daniels 2009) and reductions in air and water pollution (Luther 2008). Ultimately, human health and law were subsumed by the environmental planning specialization (Figure 1).

As growth and innovation in specialized knowledge curtailed, it also ossified. After the 1978 merger, the American Planning Association (APA) recognized professional specialized knowledge for economic development, housing and community development, law and planning, environment and natural resources, transportation, and historic urban design and preservation. The recognition left out international planning, GIS, and regional planning. Subsequently, environmental, design, and transportation specializations would become the only specializations certified by the American Institute of Certified Planners, further stratifying legitimized specialized knowledge.

The 1980–2010 Interval

A focused burst of interest in planning specializations began in the late 1980s (Patton 1989; Pivo 1989) following what the outgoing Association of Collegiate Schools of Planning president termed a "crisis in the profession of city and regional planning" (Sawicki 1988). The Reagan administration broadly eliminated federal support for regional and local government planning jobs and social science research. Planning school enrollments fell (Krueckeberg 1984). Public policy swerved away from centralized planning, with public funding instead emphasizing public-private partnerships and real estate deals (Fainstein 1991).

Planning educators adapted and specialization offerings expanded (Figure 1). Planning schools broadened their specialized focus, hiring faculty from different disciplines (Brooks 1988). Programmatic offerings evolved in what some considered unexpected and opportunistic ways, responding to the newfangled interests of new faculty (Alonso 1986). Real estate specializations flourished with the conservative shift to privatization (Simons 1994; Figure 1). Real Estate as a planning specialization grew out of and overlaps with Housing (Figures 1 and 2), echoing Marcuse's (1980) critique that the initial focus on the ill housed in housing specializations accommodated a new interest in housing supply for the private market. "Computers in Planning" specializations emerged as the advent of the personal computer revolutionized visualization and simulation (Patton 1989).

The crisis passed. Planning employment increased in the 1990s, as did planning school enrollments.

Recognizing the important role of specializations during the enrollment crisis in the 1980s, scholars began advocating for more, not less, specialized knowledge in planning, urging more collaboration among allied fields (Chapman 1992; Feldman 1994; Lucy 1994). Historic preservation shows up for the first time, likely in response to increased public support and federal legislation generating funding for local preservation efforts that use plans. The personal computer combined with the graphical user interface fueled GIS specialization growth as a tool relevant for other disciplines and planning specializations (Drummond 1995). By 2000, health reappeared. This time, the specialization focused on issues of food, nutrition, exercise, and preventive health tied to the spatial organization of auto-reliant places (Frumkin, Frank, and Jackson 2004; Boarnet 2006). Law also reappears only after 2010. Interviewees noted that these two areas prove especially challenging to launch and sustain on university campuses where schools of public health and law possess their own curricular agenda and compete for students.

Looking at today's specialization offerings, we see that *Planning* and *Development* dominate the frequency graph, with the most mentions in specialization titles (Figure 3). This reflects, we believe, the assimilation of specializations within the urban planning discipline—the core. The social planning–focused specializations tend to link a functional theme with development (e.g., Community Development, Economic Development, and Housing Development). *Development* can evoke both the long-standing social reform agenda of urban planning as well as the dynamic forces of real estate investment and neighborhood improvement. The physical planning specializations tend to bind with planning (e.g., Environmental Planning, Transportation Planning, and Land-Use Planning). So even as planning schools identify specializations, the large theme of planning and development acts as mortar, binding specializations to the discipline's core.

Our findings of the most prominent specializations at the base of the frequency graph (Figure 3) reinforce recent assessments of the prevalence and usefulness of specialized knowledge within planning. Transportation and community are at the heart of today's planning curricula, closely followed by economic, housing, and environmental concerns (Figure 3). Prominent specialization themes are echoed in planning practice. Dawkins (2016) found that practicing planners have relied on their education in land use (58 percent), economic development (29 percent), transportation (28 percent), environmental planning (22 percent), and GIS (21 percent). Similarly, Greenlee, Edwards, and Anthony (2015) find that planners practicing for local governments rank the following five specializations as most important to their work: community development, economic development, transportation, housing, and physical planning (which encompasses land use and urban design in their survey). Because most environmental planners work as private consultants or for state and federal agencies (Glasmeier and Kahn 1989; Guzzetta and Bollens 2003; Dalton 2007), the environmental theme is excluded from Greenlee, Edwards, and Anthony's findings. While the APA lists many of the most common themes of planning specialization in its list of planning's eleven specialties, it includes themes not frequently found across the seventy-six accredited planning schools, such as "Code Enforcement," "Parks and Recreation," and "Community Activism/Empowerment" (APA 2016). Neither *Code* nor *Empowerment* was mentioned in any specialization title (Table 1, Figure 3). A closer fit to school offerings would include "Urban Systems," "Real Estate," and "Regional Planning."

Turning from the shape of the core to the long-tailed periphery (Table 1, Figure 3), we see a diversity of specialty themes that act as resources for curricular innovation. On the periphery are themes such as Energy, Conservation, and Equity. These themes may be underrepresented because the schools adopt unique titles, but they also reflect new and emerging knowledge domains for planning. Indeed, social sciences broadly are only recently considering energy supply, despite the important role this land use plays in economic development and environmental justice (Pasqualetti and Brown 2014).

Strikingly, of the total 129 specialization themes offered across planning schools, nearly half are unique (Table 1). Mentioned only once, these specializations testify to a diverse assortment of curricular experiments. For example, the University of Michigan offers a Sustainable Food Systems certificate; the University of New Mexico houses an Indigenous Design and Planning Institute and offers Tribal Planning. The range of specializations taps every professional education domain: knowledge (golf course design), skill (watershed management), scale (neighborhood), and values (social justice). As the timeline has shown, some themes will undoubtedly remain unique, others will fade, and a few will coalesce and spread across schools, eventually reshaping the planning discipline.

Interviews with planning program chairs indicated that new specializations emerged gradually as individual faculty offered a new topical course on a trial basis. If a new course proved popular, the faculty would use the evidence of interest to explore a more involved curricular change. The commitment to a specialization was not automatic but subject to the availability of relevant faculty in the department or in allied disciplines as well as other resource conditions. For example, though the University of British Columbia was opened in 1951 and was accredited in 1970, the program offers only three specializations, one of which is self-guided. The school adopted a focus on sustainability in its mission statement in 1994 and began a focus on diversity through two student-led reports under the guidance of Tony Dorcey, whose own research emphasizes sustainability planning for natural resources, collaborative governance frameworks, and planning pedagogy. With Leonie Sandercock and Leona Sparrow, as program co-directors, the university offered the

first Indigenous Community Planning specialization in 2012. Sandercock and Sparrow are well known for their research with First Nations and emphasis on diversity in planning (Sandercock 1998). It is also worth noting that the university is located on the traditional, unceded tribal lands of the Musqueam people, whose chief partners with the Indigenous Community Planning specialization. In sum, momentum from faculty expertise, student interest, and campus resources culminated in a new specialization.

In such a culmination, planning departments are forced to negotiate with not only their own faculty and students but other schools and colleges on their campus. For example, students can elect to take interdepartmental specializations in environmental studies, Great Plains studies, or water resources planning and management at the University of Nebraska–Lincoln. In other cases, departmental clashes over intellectual turf led to the demise of specializations, such as law. Offering specializations proves especially difficult for smaller faculty bodies. For example, Florida Atlantic University is currently in the process of removing all concentrations in order to free faculty to focus more on their core offerings.

Analysis: Planning Is What It Does

This research revealed several parameters for forming, maintaining, and growing planning specializations. First, faculty discipline and expertise foster not only specialized research inquiry but the study of that specialized knowledge as part of planning education. Sanchez and Afzalan (2014; Afzalan and Sanchez 2017) demonstrate that current planning schools share central constellations of faculty research expertise that respond to demands from practice. Their work indicates that the evolution of "core programming" in planning may be closely coupled to faculty research interests and specialization offerings rather than core course offerings (Friedmann 1996). To borrow a phrase from systems thinking (Beer 1985), planning is what it does.

There is, however, a lag time that allows for course and curricular development. For example, Pivo (1989) found that faculty interest in land-use planning increased by 32 percent from 1976 to 1986 as land-use specialization offerings stayed the same. The Figure 1 timeline shows that land-use themes in specializations nearly doubled over that time and again between 2000 and 2010—a difference we attribute to time lag in integrating faculty knowledge into the curriculum. This same trend, however, is not as obvious for transportation and design specializations, indicating the complex nature of charting programmatic offerings and the evolution of the field. Where specialization themes have expanded in bursts, they indicate successful faculty innovation. Future research questions may address if full-time research faculty, part-time professors of practice, or adjunct faculty are building the capacity for specialization offerings and curricular innovation.

Second, the interest in and uptake of specialized knowledge by students proves a crucial test for further development and curricular approval (Sawicki 1988; Stiftel 1999). Student demand for specializations may reflect their perceptions of the job market (Friedmann and Kuester 1994). Currently, there is pedagogical focus in connecting current job market needs with educational supply (Guzzetta and Bollens 2003; Greenlee et al. 2015; Dawkins 2016), but the ability for students to shape programmatic offerings, knowledge generation, and the profession as a whole has been broadly overlooked. Will teaching to the current job market confine innovation? The timeline of specialization evolution (Figure 1) would suggest that the field cannot predict its future needs and requires flexibility and experimentation to grow. By predicating specializations on current practitioner needs, the field binds itself up and prohibits evolution. But will students know best? Even if they do not, if a course is unpopular, it will flop. To this end, schools would do well to seek student feedback on specialization and course offerings. PAB would do well to pay attention to which specializations students cobble together in their self-designated areas of specialization.

Third, funding and federal mandates dramatically shape the expansion, contraction, and labeling of specialization offerings. The political and federal funding shifts of the 1970s and 2000s correspond with the most dramatic expansion and reorganization of specialization offerings as planning realigned itself with public funding focuses on real estate and economic development (Figure 1). Sustainability specializations offer another example, which does not show up in the timeline due to their recent emergence this decade. The Sustainability theme was mentioned in 19 specialization offerings, ranking it immediately after specialization themes evident at the birth of the profession (Figure 3). By way of explanation for this rising theme and others related to it, planners began conducting greenhouse gas emission inventories and corresponding climate change plans in the 1990s with funding supplied by the U.S. Environmental Protection Agency, an international consortium of local governments (ICLEI–Local Governments for Sustainability and U.S. Conference of Mayors' Climate Protection Agreement), and nonprofits (the Sierra Club and the Center for Climate Strategies). By 2008, twenty-nine U.S. states, dozens of cities, and a few counties had prepared climate change plans (Wheeler 2008), necessitating new job descriptions and a response in the academy to provide novel skill sets and comprehensive baseline knowledge. The response to such job market pressures is seen in the rise of the Sustainability theme and lesser-mentioned specializations more directly focused on climate planning (Figure 3, Table 1). If faculty research interests did not already exist in the areas where governments demanded planning expertise and provided research funding, courses could not be offered to adequately train interested students for this job market, potentially creating a bottleneck in the supply chain of specialized planning practice. Arguably, the constraints of student interest and ample funding should be enough to prevent faculty from taking a planning specialization too far afield.

Fourth, just as planning negotiated professionalization with multiple allied disciplines at the birth of the profession, its specializations continue to develop and grow within the constraints of existing expertise on college campuses. Where specializations grow, they offer symbiotic skill sets to aide other disciplines. For example, many public health schools and epidemiologists collaborate with GIS programs for spatial analysis and place-based policy recommendations. The Bureau of Labor Statistics (2017) indicates that planners often work together with public officials, engineers, architects, lawyers, and developers. One can easily see the partnerships between the listed careers and corresponding planning specializations in policy, transportation, design, law, and real estate, respectively. In this sense, planning is hedged into its intellectual territory in a broader world of knowledge. As the interviews indicated, such confines prove particularly tricky in establishing specializations that might poach students and tuition dollars from other campus schools. Future work can connect the planning themes (Figure 3, Table 1) with allied fields, identifying synergies, open spaces, and contested intellectual ground.

The slow-moving restructuring of research and teaching that Friedmann (1987) noted in the core curricula occurs more quickly with specializations, precisely because planning specializations must respond to advancements in other fields, student interests, and government culture. During the turbulent sociopolitical shifts of the 1980s, which saw social science defunded, changes in planning specialization nomenclature, and student enrollment drops, Sawicki (1988, 116) dryly noted that "while we drift, our colleagues in civil engineering, landscape architecture, and architecture are making inroads into what has traditionally been our substantive work." The drift Sawicki observed was core restructuring and birth of new specializations. As planning successfully recovered from the 1980s, scholars viewed the "intimate contact" (Feldman 1994) and "interprofessionalism" (Chapman 1992) of planning with other fields as vital to the survival, evolution, and growth of the planning discipline. That half of all specialization themes are unique to their school is an indicator of such reserve capacity. For example, nascent GIS programs in the 1960s rapidly proliferated with the advent of the personal computer three decades later (Figure 1). Other unique planning specializations may similarly be waiting for the right assemblage of expertise, interest, and outside demand. In our view, specializations in planning should not all be corralled in the same direction. New avenues of research and practice should be continually queried. Specializations should be exploratory, innovative, risk taking. In sum, they may point in numerous different directions. Yet, just because they are everything does not make them nothing.

By exploring the rise and fall of planning specializations, we can learn how specialization themes align with the most pressing new problems planning faces. To this end, where is planning for women? People of color? The aging population? In this way, specializations differ from the interest groups formed within planning, such as the APA's "Women and Planning" and "LGBQT and Planning" divisions (APA 2017), or interest groups in the American Collegiate Schools of Planning, which cover Faculty Women's Interest Group, Planners of Color Interest Group, and Global Planning Educator's Interest Group. The divisions and interest groups may represent where planning is restructuring itself from within to better serve changing faculty, practitioner, and constituent demographics. Arguably, the themes within specializations reflect less the demographic needs from planning and more the subject areas susceptible to advances in planning knowledge.

What Next?

Unlike the planning core, specializations are highly and outwardly responsive. The U.S. Bureau of Labor Statistics (2017) forecast that "population growth, economic conditions, and environmental concerns" will drive employment growth for planners. Our findings support this outlook; yet, we add that that future growth in planning is also reliant on the many smaller and apparently marginal specializations on offer—especially in times of crisis for the field. These specializations provide tentacular extensions of the practical planning art, allowing the field of planning to probe new domains of complexity susceptible to purposeful collective learning and change. Their growth represents the harvesting and assimilating of knowledge from allied disciplines and practical use in the field. Because PAB does not require information about specializations, many schools have not paid attention to such shifts in programmatic offerings—or their impacts on enrollment and alumnae success. Undoubtedly, the PAB should track specializations, allowing iterations of this work to delve into how specializations have changed along with the field of planning. For example, will the divisions between physical and social planning specializations seen in the Venn diagram (Figure 2) continue to diverge, or will new alliances form within and outside of the profession? Similarly, analysis of course offerings and syllabi within specializations over time would provide an indicator of change.

Taking evolution into our own hands, we ask, can and should planners intentionally chart new specializations? We offer the rise in food planning as an example. In the 1990s, planning scholars Kami Pothukuchi and Jerry Kaufman (1999, 2000) initiated a comprehensive assessment of food systems, raising questions about the quality of the food we eat and long-term effects of how we get it. The current system follows food industry plans but not neccessarily plans for people, places, and the land. Documenting the problem and conceiving planning tools and initiatives became a popular topic of research for their doctoral students, Samina Raja and Brandon Born. Together with other planning scholars, they analyzed a growing food-related social movement by focusing on nutritional food deserts tied to racial and socioeconomic segregation (Raja, Ma, and Yadav 2008; Raja et al. 2010; McEntee and Agyeman 2010), price and availability of healthy food (Brinkley, Chrisinger, and Hillier 2013), self-provisioning (Smit, Nasr, and Ratta 1996), and policy critique (Born and Purcell 2006). Disciplinary collaboration is characterized by

coauthorship with faculty from health disciplines and publications in non-planning, health-related journals (e.g., Roemmich et al. 2006; Hillier et al. 2011). While faculty are increasingly aided by spatially explicit diet-related health, grocery store, and farmland data through the Food Atlas (Economic Research Service 2013) and Cropscape (Han et al. 2012), the concern remains thin at a national scale. Nonetheless, regions and cities have taken up the initiative to challenge the sale of sugar-laden soft drinks and have initiated designs for residential communities that encourage walking, food security, and farmland preservation, fueled by food system plans (San Francisco Food Systems 2005; Delaware Valley Regional Planning Commission 2010; Horst and Gaolach 2015; Brinkley 2017). Embedding these new developments in planning's long arc, urban historians documented planning involvement in the study (Donofrio 2007), design (Vitiello and Brinkley, 2014), and regulation (Brinkley and Vitiello 2014) of food systems since the birth of the profession. The APA sponsored the publication of a community and regional food planning policy guide and advisory report (Raja, Born, and Russell 2008) to help local planners anticipate and respond to these changes. Faculty offer popular courses in food planning (Hammer 2004). These nascent efforts provide evidence for the emergence of a new specialization. But the prospects for successful sustained development remain unclear. Will the magic formula of faculty expertise, student interest, and public funding conspire to birth a long-term planning specialization?

Other early planning specialties have not received the glory of realizing their earliest rallying cries despite generous federal funding programs. Recently, scholars have noted the conspicuous absence of practitioner training programs for specialization themes related to education (Vincent 2006; Vincent and Filardo 2008), public housing (Marcuse 1980), and health (Krieger and Higgins 2002; Corburn 2004; Frumkin, Frank, and Jackson 2004). Clearly, planning faculty acting alone cannot assure that a new specialization will prove popular and influential. But planning faculty can and should take steps to respond to changing conditions and sentiments to identify, develop, deliver, and evaluate special knowledge relevant for spatial planning. Scholars should identify not only why subject matter is or should be important to planning but what planning can offer that other fields do not. In some instances, a new planning specialization need not form. For example, if planners interested in public education note that planning's main contribution would be spatial analytics for predicting property tax trends to help public schools maintain their financial base and thereby programming, planning could offer professional educators and education scholars this partnership through existing specializations in GIS, housing, real estate, and policy. If, however, education experts fail to see the connection between school financing and property taxes, a new specialization label can help signal planning know-how. Likewise, scholarly planners can pioneer collaboration with ever more disciplines, thereby deriving new partnerships for research and practice where planning expertise is indispensable (Chapman 1992; Lucy 1994). In summary, planning grew out of the need for diverse disciplines to work together in solving practical problems. Specializations broadcast knowledge domains—beyond professional planners, to students, the public, and policy makers—where planning has successfully made inroads.

In closing, we present readers with an emerging consequence for specializations. In "Becoming a Planner," Bayer, Frank, and Valerius (2010, 78) notes that planning "specializations are loose, and rarely have a certificate." This loose model is changing as the PAB of the APA begins to require more formalized specializations with defined core requirements. Is this push from the practitioner arm of planning going to spur or stifle planning knowledge innovation? It is easy to see how the skill sets valued by practicing planners in "Report Writing" and "Communication" (Dawkins 2016) would fail to either inspire planning students or distinguish the planning profession from affiliated fields in the way that the established specialization titles have. Previous research would suggest that practicing planners are already far too out of step with knowledge generation to predict what will be important for future career development (Greenlee et al. 2015), yet the PAB exerts considerable influence on the types of planners sought for employment (Dawkins 2016). Planning recovered as a field after the 1980s, partly in thanks to new and popular specializations that matched faculty interest with student demand and new funding sources. Perhaps the near future will present another opportunity for young planning specializations to breathe new life into the field. It would be a shame to suffocate the opportunity.

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References

Afzalan, N., and T. W. Sanchez. 2017. "Mapping the Knowledge Domain of Urban Planning." In *Planning Knowledge and Research*, 89–104. New York: Routledge.

Alonso, W. (1986). The unplanned paths of planning schools. *The Public Interest* 82:58.

American Planning Association. 2016. *Most Common Specializations*. http://www.planning.org/onthejob/specializations.htm.

American Planning Association. 2017. *Divisions in Planning*. https://www.planning.org/divisions.

Bannister, David, ed. 1992. *Transport Planning*. New York: Spoon Press.

Bartholomew, Harland. 1921. *The Lansing Plan: A Comprehensive City Plan Report for Lansing, Michigan*.

Bayer, M., N. Frank, and J. Valerius. 2010. *Becoming an Urban Planner: A Guide to Careers in Planning and Urban Design*. New York: Wiley.

Beaglehole, R., and D. Yach. 2003. "Globalisation and the Prevention and Control of Non-communicable Disease: The Neglected Chronic Diseases of Adults." *Lancet* 362 (9387): 903–908.

Beauregard, R. A. 1985. "Occupational Transformation in Urban and Regional Planning, 1960–1980." *Journal of Planning Education and Research* 5 (1): 10–16.

Beer, S. 1985. *Diagnosing the System for Organizations*. New York: Wiley.

Bloom, N. D. 2014. *Public Housing That Worked: New York in the Twentieth Century*. Philadelphia: University of Pennsylvania Press.

Boarnet, M. G. (2006). "About This Issue: Planning's Role in Building Healthy Cities. An Introduction to the Special Issue." *Journal of the American Planning Association* 72 (1): 5–9.

Born, Brandon, and M. Purcell. 2006. "Avoiding the Local Trap Scale and Food Systems in Planning Research." *Journal of Planning Education and Research* 26 (2): 195–207.

Boyce, D. 2004. "A Short History of Regional Science." *Regional Science* 83 (1): 31–57.

Brinkley, C. 2017. "Visualizing the Social and Geographical Embeddedness of Local Food Systems." *Journal of Rural Studies* 54:314–25.

Brinkley, C., B. Chrisinger, and A. Hillier. 2013. "Tradition of Healthy Food Access in Low-Income Neighborhoods: Price and Variety of Curbside Produce Vending Compared to Conventional Retailers." *Journal of Agriculture, Food Systems, and Community Development* 4 (1): 155.

Brinkley, C., S. Raj, and M. Horst. 2017. "Culturing Food Deserts: Recognizing the Power of Community-Based Solutions." *Built Environment* 43 (3): 369–83.

Brinkley, C., and D. Vitiello. 2014. "From Farm to Nuisance: Animal Agriculture and the Rise of Planning Regulation." *Journal of Planning History* 13 (2): 113–35.

Brooks, M. P. 1988. "Four Critical Junctures in the History of the Urban Planning Profession: An Exercise in Hindsight." *Journal of the American Planning Association* 54 (2): 241–48.

Brooks, M. P., M. B. McDonough, H. A. Sanders, and M. A. Winter. 1976. *The ACSP-ASPO Guide to Graduate Education in Urban and Regional Planning*. Chicago: American Society of Planning Officials.

Buffel, T., and C. Phillipson. 2012. "Ageing in Urban Environments: Developing 'Age-Friendly' Cities." *Critical Social Policy* 32 (4): 597–617.

Bureau of Labor Statistics, U.S. Department of Labor. 2017. *Occupational Outlook Handbook, Urban and Regional Planners*. http://www.bls.gov/ooh/life-physical-and-social-science/urban-and-regional-planners.htm.

Caro, R. A. 1974. *The Power Broker: Robert Moses and the Fall of New York*. New York: Knopf.

Chapman, D. 1992. "Interprofessionalism and Planning Education." *Planner* 78 (8): 10–11.

Clawson, Marion. [1981] 2013. *New Deal Planning: The National Resources Planning Board. Resources for the Future*. New York: Routledge.

Corburn, J. 2004. "Confronting the Challenges in Reconnecting Urban Planning and Public Health." *American Journal of Public Health* 94 (4): 541–46.

Corburn, J. 2007. "Reconnecting with Our Roots: American Urban Planning and Public Health in the Twenty-First Century." *Urban Affairs Review* 42 (5): 688–713.

Dagenhart, R., and D. Sawicki. 1992. "Architecture and Planning: The Divergence of Two Fields." *Journal of Planning Education and Research* 12 (1): 1–16.

Dalton, L. C. 2007. "Preparing Planners for the Breadth of Practice." *Journal of the American Planning Association* 73 (1): 35–48.

Daniels, T. 2009. "A Trail across Time: American Environmental Planning from City Beautiful to Sustainability." *Journal of the American Planning Association* 75 (2): 178–92.

Dawkins, C. 2016. "Preparing Planners: The Role of Graduate Planning Education." *Journal of Planning Education and Research* 36 (4): 414–26.

Delaware Valley Regional Planning Commission. 2010. *Greater Philadelphia Food Systems Study Philadelphia*. http://www.dvrpc.org/reports/09066a.pdf.

Donofrio, G. A. 2007. "Feeding the City." *Gastronomica* 7 (4): 30–41.

Drummond, W. J. 1995. "Extending the Revolution: Teaching Land Use Planning in a GIS Environment." *Journal of Planning Education and Research* 14 (4): 280–91.

Economic Research Service. 2013. *Food Access Research Atlas*. https://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas/.

Fainstein, S. S. 1991. "Promoting Economic Development Urban Planning in the United States and Great Britain." *Journal of the American Planning Association* 57 (1): 22–33.

Fang, K. 2015. "Skateboarding for Transportation by the Numbers: Quantitative Indications of the Use of Skateboards as an Active Travel Mode." In *Transportation Research Board 94th Annual Meeting*, no. 15-3770. Washington, DC: National Academies Press.

Feldman, M. M. A. 1994. "Perloff Revisited: Reassessing Planning Education in Postmodern Times." *Journal of Planning Education and Research* 13(2): 89–103.

Fishman, R. 2000. *The American Planning Tradition: Culture and Policy*. Washington, DC: Woodrow Wilson Center Press.

Florida, R. 2004. *The Rise of the Creative Class*. New York: Basic Books.

Ford, A. S. 1981. "The Health Planning Professional: A New Opportunity for Planning Education." *Journal of Planning Education and Research* 1 (1): 18–28.

Forester, J. 1989. *Planning in the Face of Power*. Berkeley: University of California Press.

Friedmann, J. 1987. *Planning in the Public Domain: From Knowledge to Action*. Princeton, NJ: Princeton University Press.

Friedmann, J. 1996. "The Core Curriculum in Planning Revisited." *Journal of Planning Education and Research* 15 (2): 89–104.

Friedmann, J., and C. Kuester. 1994. "Planning Education for the Late Twentieth Century: An Initial Inquiry." *Journal of Planning Education and Research* 14 (1): 55–64.

Frumkin, H., L. Frank, and R. J. Jackson. 2004. *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Washington, DC: Island Press.

Glasmeier, A., and T. Kahn. 1989. "Planners in the '80s: Who We Are, Where We Work." *Journal of Planning Education and Research* 9 (1): 5–17.

Graham, O. L., Jr., ed. 2000. *Environmental Politics and Policy, 1960s–1990s*. University Park: Pennsylvania State University Press.

Greenlee, A. J., M. Edwards, and J. Anthony. 2015. "Planning Skills: An Examination of Supply and Local Government Demand." *Journal of Planning Education and Research* 35 (2): 161–73.

Guzzetta, J. D., and S. A. Bollens. 2003. "Urban Planners Skills and Competencies: Are We Different from Other Professions? Does Context Matter? Do We Evolve?" *Journal of Planning Education and Research* 23 (1): 96–106.

Hammer, J. 2004. "Community Food Systems and Planning Curricula." *Journal of Planning Education and Research* 23 (4): 424–34.

Han, W., Yang, Z., Di, L., & Mueller, R. 2012. "CropScape: A Web Service Based Application for Exploring and Disseminating US Conterminous Geospatial Cropland Data Products for Decision Support." *Computers and Electronics in Agriculture* 84:111–23.

Hemmens, G. 1988. "Thirty Years of Planning Education." *Journal of Planning Education and Research* 7 (2): 85–91.

Hillier, A., C. C. Cannuscio, A. Karpyn, J. McLaughlin, M. Chilton, and K. Glanz. 2011. "How Far Do Low-Income Parents Travel to Shop for Food? Empirical Evidence from Two Urban Neighborhoods." *Urban Geography* 32 (5): 712–29.

Horst, M., and B. Gaolach. 2015. "The Potential of Local Food Systems in North America: A Review of Foodshed Analyses." *Renewable Agriculture and Food Systems* 30 (5): 399–407.

Jacobs, J. 1961. *The Death and Life of Great American Cities*. New York: Vintage.

Kreditor, A. 1990. "The Neglect of Urban Design in the American Academic Succession." *Journal of Planning Education and Research* 9 (3): 155–63.

Krieger, J., and D. L. Higgins. 2002. "Housing and Health: Time Again for Public Health Action." *American Journal of Public Health* 92 (5): 758–68.

Krueckeberg, D. A. 1984. "Planning and the New Depression in the Social Sciences." *Journal of Planning Education and Research* 3 (2): 78–86.

Larsen, K. E. 2016. *Community Architect: The Life and Vision of Clarence S. Stein*. Ithaca, NY: Cornell University Press.

Lessig, L. 2008. *Remix: Making Art and Commerce Thrive in the Hybrid Economy*. New York: Penguin Press.

Lucy, W. H. 1994. "If Planning Includes Too Much, Maybe It Should Include More." *Journal of the American Planning Association* 60 (3): 305–18.

Luther, L. 2008. *The National Environmental Policy Act: Background and Implementation*. Congressional Research Service Report RL31522, Washington, DC.

MacDonald, H. 2008. "City Planning and the US Census: 1910 to 1960." *Journal of Planning History* 7 (4): 263–94.

Marcuse, P. 1980. "Housing in Early City Planning." *Journal of Urban History* 6 (2): 153.

McEntee, J., and J. Agyeman. 2010. "Towards the Development of a GIS Method for Identifying Rural Food Deserts: Geographic Access in Vermont, USA." *Applied Geography* 30 (1): 165–76.

Mohl, R. 2003. "Ike and the Interstates: Creeping toward Comprehensive Planning." *Journal of Planning History* 2 (3): 237–62.

Myers, D., and T. Banerjee. 2005. "Toward Greater Heights for Planning: Reconciling the Differences between Profession, Practice, and Academic Field." *Journal of the American Planning Association* 71 (2): 121–29.

Myers, D., and S. Ryu. 2008. "Aging Baby Boomers and the Generational Housing Bubble: Foresight and Mitigation of an Epic Transition." *Journal of the American Planning Association* 74 (1): 17–33.

Official Plan of Cincinnati, Ohio, TAC, consulting engineers. 1925. Cincinnati, OH: City Planning Commission (Ladislaus Segoe). https://www.cincinnati-oh.gov/planning/assets/File/1925%20Official%20Plan%20of%20the%20City%20of%20Cincinnati.pdf.

O'Harrow, D. 1967. Preamble. In *Proceedings of the First National Conference on City Planning*. Washington DC: American Planning Association.

Park, R. E., E. W. Burgess, and R. D. McKenzie. 1925. *The City*. Chicago: University of Chicago Press.

Pasqualetti, M. J., and M. A. Brown. 2014. Ancient Discipline, Modern Concern: Geographers in the Field of Energy and Society. *Energy Research and Social Science* 1:122–33.

Patton, C. V. 1989. "Recent Trends in Graduate Planning Education." *Journal of Planning Education and Research* 8 (3): 215–20.

Patton, C., and K. Reed. 1986. *Guide to Graduate Schools in Urban and Regional Planning*. Milwaukee, WI: Association of Collegiate Schools of Planning.

Pearl, Raymond, and Lowell Reed. 1923. *Predicted Growth of Population of New York and Its Environs*. New York: Columbia University Microfilms.

Perloff, Harvey S. 1957. *Education for Planning: City, State and Regional*. Baltimore: Johns Hopkins Press.

Peterson, J. A. 2009. "The Birth of Organized City Planning in the United States, 1909–1910." *Journal of the American Planning Association* 75 (2): 123–33.

Pivo, G. 1989. "Specializations, Faculty Interest, and Courses in Physical Planning Subjects at Graduate Planning Schools." *Journal of Planning Education and Research* 9 (1): 19–27.

Planning Accreditation Board. 2012. *PAB Accreditation Standards and Criteria* (approved April 14, 2012). Chicago: Author.

Pothukuchi, Kami, and Jerry L. Kaufman. 1999. "Placing the Food System on the Urban Agenda: The Role of Municipal Institutions in Food Systems Planning." *Agriculture and Human Values* 16 (2): 213–24.

Pothukuchi, Kami, and Jerry L. Kaufman. 2000. "The Food System: A Stranger to the Planning Field." *Journal of the American Planning Association* 66 (2): 113–24.

Raja, Samina, Brandon M. Born, and J. K. Russell. 2008. *Planners Guide to Community and Regional Food Planning*. Chicago: American Planning Association.

Raja, Samina, C. Ma, and P. Yadav. 2008. "Beyond Food Deserts: Measuring and Mapping Racial Disparities in Neighborhood Food Environments." *Journal of Planning Education and Research* 27 (4): 469–82.

Raja, Samina, L. Yin, J. Roemmich, C. Ma, L. Epstein, P. Yadav, and A. B. Ticoalu. 2010. "Food Environment, Built Environment, and Women's BMI: Evidence from Erie County, New York." *Journal of Planning Education and Research* 29 (4): 444–60.

Roemmich, J. N., L. H. Epstein, S. Raja, L. Yin, J. Robinson, and D. Winiewicz, D.2006. "Association of Access to Parks and Recreational Facilities with the Physical Activity of Young Children." *Preventive Medicine* 43 (6): 437–41.

Rosenberg, M., and J. Everitt. 2001. "Planning for Aging Populations: Inside or Outside the Walls." *Progress in Planning* 56 (3): 119–68.

San Francisco Food Systems. 2005. *2005 San Francisco Collaborative Food Assessment*. San Francisco: Author.

Sanchez, T. W., and N. Afzalan. 2014. "Mapping the Knowledge Domain of Planning." Paper presented at the 54th Annual Conference of the Association of Collegiate Schools of Planning, Philadelphia, November 2, 2014.

Sandercock, Leonie, ed. 1998. *Making the Invisible Visible: A Multicultural Planning History*, vol. 2. Berkeley: University of California Press.

Sawicki, D. S. 1982. "Teaching Policy Analysis in a Graduate Planning Program." *Journal of Planning Education and Research* 1 (2): 78–85.

Sawicki, D. S. 1988. "Planning Education and Planning Practice: Can We Plan for the Next Decade?" *Journal of Planning Education and Research* 7 (2): 115–20.

Scott, M. 1969. *American City Planning since 1890*. Berkeley: University of California Press.

Simkhovitch, Mary. 1910. "Address by Mrs. V. F. Simkovitch of Greenwich House, New York City." In *Proceedings of the First National Conference on City Planning*, 101–104. Cambridge: Cambridge University Press.

Simons, R. A. 1994. "Public Real-Estate Management and the Planner's Role." *Journal of the American Planning Association* 60 (3): 333–43.

Singh, S., and J. E. Darroch. 2012. *Adding It Up: Costs and Benefits of Contraceptive Services—Estimates for 2012, New York*: New York: Guttmacher Institute and United Nations Population Fund (UNFPA).

Smit, J., J. Nasr, and A. Ratta. 1996. *Urban Agriculture: Food, Jobs and Sustainable Cities*. New York: United Nations Development Program.

Stiftel, B. 1999. "Faculty Labor and Intellectual Capital: Furthering Disciplinary Development and Institutional Positioning in the Urban Planning Academy." *Journal of Planning Education and Research* 19 (2): 207–10.

Stiftel, B. 2009. "Planning the Paths of Planning Schools." *Australian Planner* 46 (1): 38–47.

Susskind, L. 1974. *Guide to Graduate Education in Urban and Regional Planning*. East Lansing, MI: Association of Collegiate Schools of Planning.

Susskind, L., and J. L. Cruikshank. 1987. *Breaking the Impasse: Consensual Approaches to Resolving Public Disputes*. New York: Basic Books.

Tyler, N., T. J. Ligibel, and I. R. Tyler. 2009. *Historic Preservation: An Introduction To Its History, Principles, and Practice*. New York: Norton.

United Nations Economic and Social Council. 2014. *World Demographic Trends: Report of the Secretary-General, 21 January 2014*. E/CN.9/2014/3. New York: Author.

University of Virginia. 2017. *Urban and Environmental Planning Graduate Student Handbook AY 2017–2018*. http://www-admin.arch.virginia.edu/sites/default/files/MUEP_Handbook_2017-2018.pdf.

Unwin, Raymond. 1911. "Buildings in Relation to Street and Site." In *Proceedings of the Second National Conference on City Planning*, 101–109. Cambridge: Cambridge University Press.

U.S. Advisory Commission on Intergovernmental Relations. 1973. *Regional Decision Making: New Strategies for Substate Districts; Substate Regionalism and the Federal System*, vol. 1. Washington, DC: Government Printing Office.

Vincent, J. M. 2006. "Public Schools as Public Infrastructure Roles for Planning Researchers." *Journal of Planning Education and Research* 25 (4): 433–37.

Vincent, J., and Filardo, M. 2008. "Linking School Construction Investments to Equity, Smart Growth, and Healthy Communities." Berkeley: University of California, Center for Cities and Schools.

Virginia Commonwealth University. 2017. "Urban and Regional Planning, Master of (M.U.R.P.) with a Concentration in Metropolitan Planning: Degree Requirements." *VCU Bulletin*. http://bulletin.vcu.edu/graduate/school-government-public-affairs/urban-regional-planning-murp-concentration-metropolitan-planning/#degreerequirementstext.

Vitiello, D., and C. Brinkley. 2014. "Hidden History of Food System Planning." *Journal of Planning History* 13 (2): 91–112.

Wheeler, S. M. 2008. "State and Municipal Climate Change Plans: The First Generation." *Journal of the American Planning Association* 74 (4): 481–96.

Wildavsky, A. 1973. "If Planning Is Everything, Maybe It's Nothing." *Policy Sciences* 4 (2): 127–53.

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