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Planning To Perform:
Evaluation Models For City Planners

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Planners create a wide array of planning products, from area plans to zoning ordinances. How, if at all, are these products evaluated? This article uses a three-pronged approach to identify post-hoc evaluation models for three common products: comprehensive plans, area plans, and zoning ordinances. The three-pronged approach examines the planning textbooks, the evaluation provisions in the plans themselves, and the actual evaluations. After probing the evaluation models, the article discusses incentives and disincentives for evaluations, revealing factors that may make planners less inclined to conduct evaluations. The article concludes by exploring new directions and tools for city planning evaluation.

Introduction: Visions and Visionaries

At this moment, in hundreds of cities across America, planners are asking residents to create a twenty-year vision for a better community—perhaps a safer one, with better schools, more parks, less traffic. It is a seductive vision indeed. In theory, the city planners use the results from this "visioning" exercise to help develop comprehensive land use plans, neighborhood plans, zoning ordinances, watershed plans, transportation improvement plans, and a wide array of other city planning products.

Twenty years later, how do we know if the vision was achieved? Was the plan useful in any way? Was it carried out, or was it simply supplanted by another vision, and yet another one, until the community residents exclaim, as one angry San Diegan did, "I've been involved in so many visioning processes over the past twenty years I'm starting to hallucinate! Let's get something done!" (Lewis 1996, p. 169).

This article asks how city planners evaluate their products. In order to answer this question, we first must define the word "evaluation." We then examine the evaluation models available in the city planning guidebooks, the actual plans, and the actual evaluations. Because of the plethora of planning products, this article focuses on the bread and butter products of local government city planners, including

general plans (also called comprehensive plans), neighborhood plans (also called area plans), and zoning ordinances.

We find that evaluation models are lacking and that planners rarely evaluate their work, at least in a formal manner. Thus, the latter half of this article asks, "Why not? In other words, what are the possible disincentives, and incentives, for conducting evaluations? Finally, the article offers conclusions and identifies future research possibilities.

Evaluation: The Planning Perspective

Evaluation, as typically defined, is the systematic assessment of the worth or merit of some object (Trochim 2000). A thriving mainstream evaluation literature exists, with its own evaluation typologies and methods (e.g., Patton 2002; Wholey et al. 1994; Weiss 1988). Interestingly, many of the concerns, techniques, and typologies of mainstream evaluation research never surfaced in plan evaluation. For example, mainstream evaluation debates focus on quantitative versus qualitative techniques (Patton 1986), the role of theory (Chen 1990), advocacy and evaluator bias (Chemlinsky and Shadish 1997), and the use of key tools such as performance measurement (Perrin 1998). Plan evaluation, in contrast, focuses on what to evaluate, how to evaluate, and the potential irrelevance of evaluation. This section defines plan evaluation and provides an overview of these key topics.

A Definition of Plan Evaluation. Before we examine the key debates surrounding evaluation, we should clearly define what we mean by evaluation, since planners use that term to mean anything from evaluating plan alternatives to evaluating plan outcomes. William Baer identifies four meanings of the term "plan evaluation," based on who undertakes the evaluation, at what point in the planning process, and with what methods. Evaluations include: (1) plan assessment (ensuring that the plan embodies its criteria); (2) plan testing and evaluation (evaluating alternative ways to achieve a plan's goals); (3) plan critique (a subjective review of a plan by other planners, similar to a movie review); (4) comparative research and professional evaluation (comparing various plans, with or without considering outcomes); and (5) post hoc evaluation of plan outcomes.

This summary concerns itself only with the latter definition of evaluation, post hoc outcomes—what happened to the plan? Was it useful? Did it achieve its intended effects? Post-hoc evaluation is also sometimes referred to as "monitoring" (especially in British town planning literature) or "retrospective evaluation."

Furthermore, for the purposes of this article, let us break down post hoc evaluations into evaluations with a "little e" versus evaluations with a "Big E." "Little e" evaluations consist of simple housekeeping tasks (were the prescribed actions of the plan carried out?), in contrast to "Big E" evaluations, which strategically evaluate the effect of the plan on the community. Using a zoning ordinance as an example, "little e" would ask, "Did we issue permits in accordance with the zoning ordinance?" whereas "Big E" would ask, "What kind of community resulted from the zoning patterns we set forth?" Randall Arendt's stunning indictment of zoning, in which he argues that conventional American zoning results in deadened and environmentally unsound communities, is an example of a "Big E" evaluation (Arendt 1994).

What to Evaluate? A key debate in evaluation literature concerns the proper object of the evaluation: is it the goal attainment, the broad effects of the plan, its use in future decision-making, or some other criterion?

One common type of evaluation takes the plan as a blueprint and attempts to explore its outcomes, using a "little e" checklist approach. Simply, it asks, were the prescribed actions of the plan carried out? If we proposed a park here, did we build it? In short, did the plan do what it was supposed to do? This is sometimes called a "goal attainment," "outcome," "conformance," or "compliance" approach. John Reps uses this approach in his book The Making of Urban America, which compares outcomes to original plans, as does Emily Talen (1996a) when, as part of a broader evaluation, she compares actual park distribution against Pueblo, Colorado's park plan (and finds that parks were not subsequently sited in the recommended locations). Arguments against the goal-attainment approach hold that the evaluations overlook the unintended consequences of plans, that they overlook valid reasons to depart from the plan as a blueprint, and that the plan may serve other functions beyond prescription (for example, it may be intended as an educational tool or a symbolic statement of hope).

In contrast, an impact evaluation ignores the detailed prescriptions of the plan and instead attempts to evaluate the effectiveness of the plan along some dimension. For example, what type of community did our general plan create? Did it create pleasant neighborhoods? Did it raise housing prices? Did it lessen traffic congestion? In short, this type of evaluation asks, did the plan do what you hoped it would do, and/or what unintended consequences

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occurred? This approach is sometimes called an "effectiveness" or "impact assessment" approach, or if it ignores the goals entirely, a "goal-free" approach (Patton 1986). However, there are drawbacks to this "Big E" impact approach. For example, as Talen (1996) notes, researchers studying the plan or policy's effects often simply assume that implementation has occurred as the plan prescribed. If the plan or policy was not implemented, then the effect studied may have resulted from other phenomena.

Baer (1997) highlights two other theoretical approaches, including: (1) the counterfactual approach (comparing reality to the expected outcomes had there been no plan), and (2) the postmodern approach. The postmodern approach addresses a problematic question: What if the plan outcomes are entirely irrelevant (for example, if the plan is intended as a symbol, or a way-station to the larger goal of achieving dialogue in the community)? If this is the case, do we even care about physical outcomes? More fundamentally, Baer asks, is there such a thing as a substantive outcome? Perhaps we should look instead at post-plan changes in the community's agenda. Fittingly, Baer provides no definitive answer.

If outcomes are indeed irrelevant, the work of Mastop and Faludi (1997) and Innes and Booher (1999) may point to other evaluation alternatives. Mastop and Faludi argue that the plan is conjectural, a loose prescription for the future. Thus, "departures are perfectly normal phenomena which we must learn to live with" (p. 825). Instead, they assert, the key to plan performance is "simply the way in which subsequent decision making evolves" (p. 824). Their theoretical model urges us to start by evaluating conformance, and then if we discover departures, move to a performance approach. Their performance approach asks three questions: 1) Does the policy statement have a bearing on the decision at hand? 2) Is the statement in broad agreement with other current policies of the decision makers? and 3) What are the arguments for and against compliance with the plan? Answering these questions will allow us to "form a considered opinion" about whether the plan has worked as intended, "whether the plan-maker has been able to inject some relevant considerations into subsequent deliberations" (p. 825).

Innes and Booher's approach (1999) may allow evaluation in an effort where process is paramount and the plan is of secondary importance (or absent entirely). They suggest a framework for evaluating consensus-building efforts, providing process evaluation criteria (e.g., Did the process include all stakeholders? Does it encourage challenges to the status quo?) as well as outcome evaluation

criteria (e.g., Did the effort produce a high-quality agreement, create social and political capital, and/or result in flexible and networked institutions and practices?). Thus, the debate centers around what we should evaluate. Should we take the plan as a blueprint and evaluate the outcomes of the plan (goal attainment)? Should we instead focus on determining the impact or effect of the plan? Should we use a postmodern approach that evaluates the effects of the process? Or should we employ some other approach entirely? This key debate, then, boils down to the question of how we define "success" in planning: is it goal attainment, effects of the plan, its use in future decision-making, a successful process, some other criterion, or a combination thereof?

The answer may hinge upon the intended role of the plan and on the importance we place on outcomes. Borrowing from Kent (1990) and Baer (1997), we can construct a typology of plans, including plan as vision, blueprint or map, regulation, land use guide, remedy (e.g., for urban slums), administrative requirement for federal funds, process (rather than a plan), educational device, or response to state or federal mandates. Table 1 illustrates how plan type might structure the evaluation question. For example, a plan intended to be a blueprint could be evaluated through goal-attainment techniques. In contrast, it might be futile to use goal-attainment to evaluate a plan intended as a vision or an administrative requirement (or if not futile, it might simply miss the point). Thus, the role of the plan may be a key determinant of what and how to evaluate.

Evaluation Techniques

The literature on city planning evaluation is anemic at best. The few studies that do exist (Perlman and Gurin 1972; Johnston et al. 1978; Talen 1997; Minnery et al. 1993; Reade 1983) decry the lack of evaluation in the field and the dearth of evaluation models, siding with Schaenman when he proclaims that "most communities rarely if ever undertake retrospective evaluations" (1976, p. 4).

This article employs a three-pronged approach to tease out evaluation techniques, including 1) examining well-known urban planning guidebooks to see what evaluation techniques they recommend; 2) evaluating ten bread and butter products (general plans, neighborhood plans, and zoning ordinances) to see what provisions they include for future evaluations; and 3) reviewing post-hoc reviews and critiques from the field to implicitly understand what evaluation techniques they employed.

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Table 1: Evaluation and Plan Intent

Role of Plan	Possible Evaluation Question	Possible Evaluation Approach
Vision	Was the reader inspired?	Future decisions approach (Mastop/Faludi)
Blueprint or map	Was the blueprint implemented faithfully?	Goal-attainment
Regulation	Did the plan clearly establish policy?	Goal attainment, Future decisions
Land use guide	Did the plan help shape future decisions?	Future decisions approach
Remedy	Did the plan help remediate the problem?	Impact assessment
Administrative Requirement	Did the plan help obtain funds?	Other
Process, not plans	Was the process inclusive or equitable?	Postmodern approach (e.g., Innes/Booher)
Educational device	How much did people learn?	Other
Response to mandates	Did the plan embody the mandate?	Other

From the Guidebooks

Before we ask how planners evaluate, let us examine how they are supposed to evaluate. In other words, what evaluation models do the city planning guidebooks offer?

The classic work on general plans, Kent's The Urban General Plan (reissue 1990), does not mention post-hoc evaluation. However, another prominent work, Anderson's Guidelines for Preparing Urban Plans (1995), does advise planners to monitor the impacts of the plans and amend the plans in response to feedback. Anderson recommends a formal yearly review of the general plan, summarized in an annual report based on staff analysis. He also suggests identifying criteria with which to measure the program, applying the criteria, and, where feasible, conducting a cost/effectiveness analysis. Anderson deals only in generalities, however, and does not provide suggestions for the criteria or explicit instructions about how to undertake a cost-effectiveness evaluation.

Kaiser, Godschalk, and Chapin's popular guide to urban planning, Urban Land Use Planning (1995), also discusses the need for monitoring and evaluation, and suggests a trends-based approach (based on Ragatz 1983) wherein planners gather data on conditions (such as housing inventories), identify trends, and then use the trends as intelligence for future planning decisions.

Bernie Jones' Neighborhood Planning: A Guide for Citizens and Planners (1990) is considered a prominent guidebook to neighborhood planning. Jones suggests that ever-vigilant citizens monitor and evaluate the plan, but does not suggest specific methods, other than periodically checking "what has been done, what still needs doing, [and] what parts of the plan might need revising" (p. 99).

Beyond the commonly used guidebooks, the planning literature provides other possible evaluation techniques, including indicators and regression approaches. Schaenman's indicator method (Schaenman 1976) ignores the stated goals of the plan, but selects indicators of the city's well-being—noise, wildlife, attractiveness, hospital care, crime control, education, etc.—and then measures changes in those indicators. For example, wildlife and vegetation status is measured by the number of endangered or threatened species and noise is measured by a change in noise and vibration level or number of people bothered by excessive noise and vibration. Planners in Calgary and Greater Vancouver, for example, developed 10 short-term and 20 long-term indicators to monitor their plan's success. Long-term indicators for protection of open space areas include encroachment of incompatible uses, the protection of wetlands, farm sales, and recreational trail length (Young 1997). Calkins (1979) also devised a "planning monitor" to evaluate plan outcomes quantitatively by breaking down total change into planned change and unplanned change, using a host of measurable variables in a regression equation. His intent is to explain any differences between planned and actual change and to measure the extent to which the objectives and the goals of the plan are met (thus attempting a "little e" and a "Big E" evaluation simultaneously).

Thus, the guidebooks offer us five possible tools—annual reports, cost-effectiveness analysis, trends analysis, indicators, and the planning monitor—hardly a full-bodied arsenal of evaluation techniques.

From the Plans

Armed with the ideal techniques from the guidebooks, let us next look at the evaluation techniques included in the actual plans. Will they incorporate the five tools, other tools not explored in the guidebooks, or no tools whatsoever?

In order to determine what evaluation mechanisms these plans included, we consider four general plans, three specific plans, and three zoning ordinances selected from the American Planning Association library—by no means a statistically significant or even a random sample, but instructive nonetheless. Plans were selected from the

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American Planning Association (APA) library in Chicago, Illinois because APA librarians try to archive plans that are excellent or innovative examples of their genres. Of course, we must take any evaluation provisions with a certain grain of salt—simply because a plan calls for evaluation does not imply that one was actually conducted. Conversely, evaluations might occur even where no stipulation exists in the plan itself. Table 2 summarizes the evaluation provisions from these plans.

     The General Plans A general plan, or comprehensive land use plan, serves to guide a city or county's growth for up to twenty years. The general plan and zoning codes are often likened to a DNA code for the city (e.g., Arendt 1994), since these documents direct different types of growth to different areas and intimately shape the jurisdiction's development. Several states require local governments to prepare such plans and the vast majority of states require or suggest certain plan elements (Schwab and IBHS 2002). For example, California requires general plans to include sections on land use, circulation, housing, conservation, open-space, noise, and safety (State of California 1998), while in Georgia, required elements include population, economic development, natural and cultural resources, community facilities and services, housing, land use and intergovernmental coordination (Georgia Department of Community Affairs 2003). Plan goals can be quite varied and include goals such as promoting orderly growth and development (City of Moraine 1994), increasing sense of community (City of Merced 1997), or conserving natural resources (City of Las Vegas 1992). The majority of states require zoning decisions to be consistent with the comprehensive plans (Schwab and IBHS 2002). However, few states appear to require formal post-hoc evaluations of the general plans (with notable exceptions, such as Florida, discussed below).

     The four general plans reviewed included plans from Moraine, Ohio, Merced, California, Las Vegas, Nevada, and Portland, Oregon. Two of these four, Moraine and Merced, include no provisions whatsoever for evaluations. However, the Moraine plan used its inventory process to evaluate the results of the former plan. Nearly every general plan in the country undertakes an inventory process, tallying up acres of various types of land uses, as they begin their general plan creation process. Moraine's innovation tied this inventory explicitly to the old general plan, noting that the old general plan resulted in a lack of multifamily housing, poor interface between

residential and manufacturing areas, etc. (City of Moraine 1994). This 'Big E' evaluation in effect asks, "What did we get from the last general plan?," and answers the question through the inventory.

Table 2: Evaluation Provisions in the Plans

City	Type of Plan	Calls for Evaluation?	What Type?	Implicit Evaluation Method
Moraine	general plan	No		inventory used to review prior general plan
Merced	general plan	No		
Las Vegas	general plan	Yes	Checklist	
Portland	general plan	Yes	Process goal	
Santa Rosa	zoning ordinance	No		
Sterling	zoning ordinance	No		
Washington Township	zoning ordinance	No		
Town of Manchester	neighborhood plan	No		reviews general plan and zoning
Phoenix	neighborhood plan	No		reviews general plan and zoning
Portland	neighborhood plan	No		reviews general plan and zoning

The Las Vegas plan includes an "implementation-evaluation" chart in every chapter, setting forth implementation responsibilities and providing a checklist to ensure evaluation. In other words, this is a "little e" evaluation, a housekeeping check: did we do what we said we were going to do? Unfortunately, the plan does not specify details, such as who will maintain the checklists and at what intervals, and no other evaluation mechanisms are discussed.

The Portland plan sets forth a goal of implementing "a process for complete review of the comprehensive plan on a 5-year basis." The process would include land use and demographic data collection and analysis, a general plan progress report, and a citizen involvement process to evaluate the plan's effectiveness and proposals for appropriate amendments. In other words, the plan sets forth a goal for evaluation, but does not outline the evaluation techniques.

Thus, the general plans contain either scant or no mechanisms for evaluation in the plan itself. The few plans that mention evaluation certainly do not specify methods or provide detailed operational instructions. However, the plans revealed two possible evaluation techniques not discussed in the guidebooks—evaluation through

inventories (used in Moraine) and evaluation through checklists (used in Las Vegas). This finding suggests that planners may be evaluating, but not necessarily in ways recognized by academics.

The Zoning Ordinances   A zoning ordinance, often used to implement the general plan, is a regulation that restricts what property owners can do with their property: what kinds of projects they may build (residential, industrial, etc.), the bulk and design dimensions, and allowable impacts. The zoning ordinances examined include ordinances from Santa Rosa, California, Sterling, Colorado, and Washington Township, Pennsylvania. None of the three included provisions for evaluations.

Some may assert that a zoning ordinance does not need a "little e" evaluation, as the ordinance typically carries the force of law. However, in communities where rezoning is common, implementation of a zoning map or ordinance is hardly assured. Moreover, zoning ordinances could also benefit from a "Big E" evaluation, to assess whether the resulting zoning patterns really enhanced the community, and whether the zoning ordinance goals, such as "preserving agriculture as a viable industry by guiding nonconforming development away from prime agricultural soils" (Washington Township 1993 §13107) are achieved.

The Neighborhood Plans   Neighborhood or area plans help implement the general plan in a certain area. These plans typically describe goals for a neighborhood or sub-area of the city and set forth development standards.

The West Side Neighborhood Plan for the Town of Manchester, the Roosevelt Neighborhood Special District Plan for Phoenix, and Portland's Adopted Eliot Neighborhood plan were all examined for evaluation provisions and found to contain practically none. The possible exception, if we can deign to call it an exception, is the Roosevelt Plan, which outlines an eight-sentence action plan (Appendix A), and includes a provision to "monitor City implementation of bike paths on 3rd and 5th Avenues" (City of Phoenix 1989, p. 27). However, that is the extent of the evaluation provisions.

Interestingly enough, all three of the plans provided an evaluation of sorts for the general plan, reviewing neighborhood zoning and general plan goals and suggesting amendments. In other words, these specific plans evaluate the general plan and zoning codes for small pockets of the city. These evaluations appear to rely on the

subjective judgment of the planners rather than on quantitative or formal methods. For example, the West Side Neighborhood Plan suggests that the "West side is for the most part appropriately zoned" (Town of Manchester 1993, p. 8). Criteria are not provided for this statement.

Ironically, specific plans might be especially amenable to evaluations, particularly "little e" evaluations. Many provisions in these plans are imminently evaluable, such as "foster the development of up to 500 new units of housing in the next 20 years" or "develop pedestrian and bicycle paths along designated routes throughout the Eliot Neighborhood." Physical goals such as these would be relatively easy to monitor.

From the Evaluations

What evaluation methods did actual evaluations use? Examining evaluations and working backwards, can we deduce what methods the authors employed in their evaluations?

There is one problem with this approach—finding the evaluations. A scouring of the literature for general plan and neighborhood plan evaluations turned up few evaluations of general plans in the American literature, although other comprehensive land use plan evaluations were found in the Australian and British literature (Minnery et al. 1993 and Reade 1983, respectively). Thus, in order to answer the question, we move beyond the bread and butter products to evaluation of urban planning products in general. Broadening our scope in this manner reveals five categories of evaluations, including spatial, indicator, value-driven, wholistic, and invisible evaluations (Table 3).

Table 3: Examples of Evaluation Characteristics

Author	"Little e" or Big "E"?	Evaluation Object/Approach	Evaluation Method
Alterman and Hill	Little e	Goal attainment	Spatial comparison
Talen	Both	Impact assessment	Spatial comparisons; Value-driven
Johnston et al.	Big E	Future decisions	Indicators (Decision Consistency)
Reps	Little e	Goal attainment	Wholistic
Johnson	Little e	Goal attainment	Wholistic
Garvin	Little e	Goal attainment	Wholistic

Spatial Comparisons   This approach consists of conducting fieldwork to compare land uses specified in a plan to actual land uses. One can even incorporate a quantitative approach, as Alterman and Hill (1978) did, when they divided the city and the plan into grids, coded the grids for dominant land use, and compared the "before" grid to the "after" grid. Interestingly enough, Alterman and Hill found that 66% of the new land uses conformed to the land use plan. Talen (1996), incorporating a GIS spatial comparison as one strategy in a broader evaluation, found that no new parks were developed in the specific locations suggested by a Pueblo, Colorado parks plan.

Decision Consistency/Indicators   There is at least one post-hoc evaluation of general plans—Johnston, Schwartz, and Klinker's thoughtful examination of the 1973 Sacramento County general plan (Johnston et al. 1978). This general plan was designed to prevent urban sprawl and protect valuable agricultural land. In asking whether the plan worked, the authors chose not to evaluate the direct provisions of the plan, but instead relied on four measurements? amendments, rezoning, subdivisions, and land assessments. Working on the assumption that amendments and rezonings often serve to erode the general plan, the authors asked whether the City Council adopted amendments that weakened or reversed the plan, whether rezoning decisions reinforced the general plan, and whether the Council approved subdivisions that conflicted with the plan (thus allowing urban sprawl). They also asked what effect the plan had on land assessments—was the plan taken seriously enough by land assessors to result in the devaluation of agricultural land to reflect future agricultural, rather than urban, use? The study found that these four indicators reflected the potency of the general plan and thus the authors concluded that the plan had achieved its purposes.

Value-Driven   This approach chooses a single parameter and then evaluates the plan's success on the basis of that parameter. For example, Talen (1996b) evaluated the success of a Pueblo, Colorado parks plan in part by measuring how equitably parks were distributed after the plan's adoption. To assess equity, she employed a variety of innovative quantitative techniques to analyze how accessible new parks are to various socioeconomic populations, and determined how accessibility changed after the plan was implemented. Talen found no equity bias in the distribution of new parks. She then employed a spatial regression analysis to reveal the strength of the plan as a possible explanatory variable, though the results were inconclusive.

Smart growth audits are another possible example of value-driven evaluations, although they typically assess content rather than outcomes (see Avin and Holden 2000; Weitz and Waldner 2002).

Wholistic Case Studies   Most written planning evaluations appear to be in the form of wholistic case studies, often consisting of anecdotal or historical accounts of planning failure and success. These case studies relate the story and history of the plan, describing its fate, and often providing lessons learned. Pressman and Wildavsky's groundbreaking examination of an economic development program in Oakland is an example of this type of evaluation. Other examples include Wallace and McDonnell's Diary of a Plan (1971), Planners on Planning: Leading Planners Offer Real-Life Lessons on What Works, What Doesn't, and Why (McClendon et al. 1996), and Lessons from Local Experience (U.S. Dept. of Housing and Urban Development 1983). Other examples of this literature include Johnson (1996), which explores the history, successes and failures of the 1929 Regional Plan of New York and Reps (1965), which tells a story of various American city plans and their fates. Smith (1991) and Roeseler (1982) are also in this genre, as is Garvin (1996), which provides histories of various plans, then looks across the cases to describe the ingredients of successful plans (including the use of the market, location, design, financing, entrepreneurship, and time).

While anecdotal, these case studies have advantages—they are often engaging and provide an in-depth look at the fate of certain planning products. However, the wholistic case study method, as typically executed, has its drawbacks. In general, these accounts ar? characterized by "highly subjective" evaluative mechanisms, poorly defined evaluation criteria, and vague conclusions (Talen 1996b, p. 253). Moreover, these studies often include 'lessons learned' lists that have been characterized as "fortune cookie"-type platitudes": Capitalize on what is special," "Good projects will engender support," or "Stick with it—Projects usually take longer than planned" (e.g., U.S. Department of Housing and Urban Development 1983, pp. 70 - 71). Wildavsky notes that "these imperatives have a noncontroversial ring to them, in part because they contain no operational guidance" (Wildavsky 1973, pp. 134-135). Thus, a case study's implications tend to be somewhat general and difficult to utilize explicitly in other planning processes.

Invisible Evaluations   Lindblom's concept of "muddling through" applies equally well to evaluation (Lindblom 1959). Although

it seems that planners do not formally evaluate their work, it is reasonable to hypothesize that planners evaluate incrementally and internally, making "successive limited comparisons" (Lindblom 1959, p. 81) particularly as they review or update their plans. He argues "[t]heorists do not realize that the administrator is often in fact practicing a systematic method" based on incremental comparisons (1959, p. 87). Thus, planners might in fact be evaluating their work, but not in a way that would be traditionally recognized by evaluation research. Planners may also be including evaluations in documents that are not commonly available through academic avenues, including staff reports, consistency reviews, management audits, capital improvement programs, and short term work programs. In other words, planners may be evaluating informally via methods that would not leave a convenient archival record, a possibility that merits further exploration.

A Synthesis

Looking at the guidebooks, the actual plans, and the actual evaluations, what conclusions can we make about evaluation methods? On the one hand, we found fewer formal evaluation techniques in the guidebooks than we might expect (reports, cost-effectiveness, trends, indicators, and a planning monitor). On the other hand, the plans themselves revealed alternative evaluation methods not offered in the guidebooks (evaluation of general plans through subsequent land use inventories, checklists, and neighborhood plans). It is also clear that the rich body of evaluation literature in the social services and education arena has not translated strongly into urban planning.

Both the actual plans and the lack of actual evaluations suggest that by and large, planners do not evaluate their products. When they do, they generally use anecdotal case studies to relate the story of the plan and its outcome. Nevertheless, planners may use incremental evaluations that do not leave visible artifacts such as reports; further research is needed to verify this.

Disincentives: Why Not Evaluate?

The evidence suggests that city planners do not formally evaluate their plans. Why not? This section explores possible disincentives for evaluation, including economic, political, legal, and other factors.

Economic

Costs Evaluations are costly and time-consuming and can pose major obstacles to evaluation. Weimer and Vining describe the

problem quite clearly: "building the prerequisites for evaluation into policy designs is not costless… [and] can involve substantial administrative costs, perhaps consuming scarce managerial resources needed for implementation. Preparations for future evaluations can also delay implementation" (1989, p. 318). Few planning departments, moreover, have a ready source of evaluation funds. In addition to actual costs, there are also opportunity costs of competing priorities and projects.

In a sense, evaluation can be viewed as a collective action problem, where collectively as a field we would benefit from evaluation, but individually we are better off not incurring the costs of evaluation. Unless mechanisms can be devised to overcome the collective action problem, evaluations will not occur. Mechanisms to overcome the problem might include rational incentives, such as scholarly evaluation articles to boost a professor's career, and institutional design solutions, like state requirements for evaluations.

Lack of Economic Incentives   Quite simply, no one has an economic incentive to evaluate the plans. The planner has no direct economic incentive, since her salary will not be tied to the performance of the plan (more likely it will be tied to her ability to please the public or her supervisor). Furthermore, when time comes to create the new general plan twenty years hence, she may very well be working for another agency. Also, any updates of the plans will have to address new issues, new characters, and new constituencies, and thus lessons learned from the old plan may not translate into her new plan. Thus, the planner has no need to learn from her mistakes and, therefore, no economic incentive to evaluate.

Planning consultants also have no economic incentive to conduct evaluations. For example, in the San Francisco Bay Area, many wetlands mitigation monitoring plans are driven by the efforts of environmental mitigation consultants/entrepreneurs, who lobby intensely for the monitoring efforts in hopes of securing eventual contracts. This contingent of consultants cannot earn money by evaluating city planning products (or, at least, has not traditionally attempted to do so). Thus, there is no outside economic constituency clamoring for plan evaluation. Although the public may have some vague economic incentive to push for evaluation, such as increased job growth, these incentives appear to be diffuse enough to be negligible.

Front-loading of resources   The general plan development process can be quite costly, requiring land use inventories, extensive

public input processes, environmental assessments, etc. Perhaps we plow so many resources into the front end of the cycle (plan development) that we have no resources for the end of the cycle (evaluation). Minnery et al. (1993) emphasize the great discrepancy between the resources devoted to evaluating alternative plans and the resources devoted to post-hoc evaluations, and hints that perhaps we like to "second guess" rather than assess.

Political/Legal

In the hands of a disgruntled city council, an evaluation could easily become a political tool to wield against the planning department. Additionally, Campbell suggests that planners may be susceptible to the "overadvocacy trap," where planners must make grossly exaggerated claims to generate excitement about the program. Thus, even effective programs are doomed to fall short of the claims, which would further intensify fear of evaluations (Campbell 1979). Citizens who bought into the vision expressed by their neighborhood plan might now, proof in hand, rally against the planning department, demanding an explanation for the programmatic failures. Talen further notes that "failure in planning is an integral accepted part of planning culture" (1997, p. 587), a factor which exacerbates the problem. In short, planners may be afraid to reveal to their council, their publics, and perhaps even to themselves, what planning can or cannot actually accomplish.

In addition to possible political repercussions, post-hoc evaluations may have dire legal consequences if the evaluation reveals that local decisions are inconsistent with the plan. In certain states, development decisions must be consistent with the general plan. If a plan marks a given area for agricultural preservation, yet the city council has recently approved a commercial park there, legal problems may follow. Thus, local government attorneys may strongly dissuade their councils from undertaking a formal evaluation.

Professional Culture

Intellectual heritage, city planning education, professional culture norms, and characteristics inherent to city planners may all play a role in the lack of evaluations.

Intellectual History   In his exploration of planning history, Friedman (1987) notes that planners have been heavily influenced by utopianism, and he characterizes city planners as social mobilizers. His diagrams of city planning history (p. 56) further suggest that city

planners, such as Mumford and the like, are as far removed as possible from the "systems engineering analysis" heritage at the other end of the spectrum. In other words, our intellectual heritage may simply not include the type of engineering or systems approach that would inspire us to create feedback loops and evaluations.

Education and Characteristics of City Planners   Planners are notoriously future-oriented, creators of utopias, and thus may be biased towards generating future plans rather than evaluating old ones. Furthermore, based on the close connection between architecture and city planning, many planners tend to be visually oriented and not attuned to quantitative techniques generally associated with evaluation. The education of urban planners may also play a role here—quite simply, perhaps city planners are not taught to evaluate their work. For example, at the University of California at Berkeley and Harvard University, two top-ranked graduate planning schools, evaluation is not required, although a course is intermittently offered at U.C. Berkeley.

Professional Norms   Professional norms may not encourage evaluations. Well-known planners (such as Peter Calthorpe and Norm Krumholz) are celebrated for their insightful theories or innovative designs, not for their ability to implement plans or for the past performance of their plans. As Catanese put it, "We are so concerned with planning theory and the subsequent development of techniques and methods that we pay little attention to the implementation of plans. In too many cases we have essentially stopped the planning process when it entered the implementation realm" (1996, p. 295).

State Requirements

There may be no need for evaluations if the plan is created merely to meet a requirement or if evaluation itself is not required.

Procedural Purpose of Plan   Communities in several states are required by state law to develop general plans. For some communities, the plan may be a mere procedural requirement rather than a true vision for the community. Evaluation would be superfluous in this case. Moreover, some communities may use their plans primarily (1) to provide a legal foundation for future development decisions, and (2) to limit future controversies about development (Andrew Thomas, personal communication). We can think of this as the answer to Arrow's theorem—the creation of the general plan as an institutional mechanism that limits the bounds of future decisions and promotes

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stability. In this case, a meticulous evaluation of the plan outcomes would miss the point. Rather, to judge the general plan's "effectiveness," we might wish to look at trends in lawsuits or in city council controversies.

Lack of Procedural Requirement for Evaluations In general, evaluations are not required for city planning products. Few states require localities to evaluate the outcomes of their general plans, specific plans, or zoning ordinances. While some states may require periodic plan reviews, it is unclear whether jurisdictions actually conduct such reviews, and whether such reviews are bona fide evaluations.

Exceptions exist, however. While some states (e.g., Georgia and California) suggest monitoring and evaluations, Florida regulations (§163.3191) require each local government to adopt an evaluation and appraisal report once every 7 years to assess implementation progress. The APA model state smart growth statutes also call for evaluation, recommending that local governments review their comprehensive plan at least once every five years. The recommended review includes an assessment of the extent to which the plan's vision has been achieved and the extent to which actual development has departed from the plan's proposed development pattern (American Planning Association 1998, pp. 7-231 - 7-232).

The Hooey Hypothesis

If planning is a bunch of bunk, why bother with evaluation? Some theorists argue that plan outcomes are irrelevant. Others argue that the planning process is irrational. In either case, if planning is mere hooey, then evaluation becomes meaningless.

Outcomes are Irrelevant Many planning theorists have suggested that planning is about process, not product. As Baer puts it, this school suggests that plans are a "side-show, the main event being the larger processes..." (Baer 1997). Moreover, the plan may serve a symbolic purpose, to reassure the community and give them hope, and may not be designed as a template for actual implementation. Wildavsky, declaring that planning fails everywhere it has been tried and that planning itself may be meaningless, decides to leave the subject of planning to the theologian rather than the social scientist (1973). If city planning is really about processes and symbols, then we may not need evaluation.

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Shifting targets may also make outcomes irrelevant. For example, in their summary of model cities, Abbott and Adler note that the officials often manipulated and redirected the Model Cities program to address other issues of interest to them (Abbott and Adler 1989). If the plan merely serves as a front for constituents to continually redirect resources to current issues, then perhaps the plan itself is meaningless—a mere portrait, frozen in time—and evaluation even more meaningless.

Last but not least, historical perspectives may make our outcomes irrelevant. Donald Worster, in <u>Nature's Economy</u> (1994), argues that all ideas, past and present, are grounded in particular historical contexts; he calls this idea "historicism" or "historical relativism" (p. 424). Many of the planning ideals from thirty years ago—such as large lot parcel zoning for conservation, or urban redevelopment via bulldozing—are now widely condemned by modern planners as inefficient or inequitable. Many of the planning concepts we subscribe to today—neo-traditional development, transit-oriented developments, cluster zoning—may be similarly condemned by our grandchildren. Thus, the outcomes called for in our plans may ultimately be irrelevant.

Rebuttals to these arguments might stress the importance of plans (Neuman 1988) or the importance of outcomes (Talen 1996b). Moreover, as even Mastop and Faludi (1997) concede, if the plan is intended as a blueprint, then it is certainly appropriate to evaluate outcomes. Alternatively, we could turn to process evaluation techniques that minimize the role of the plan and/or its outcomes.

The Planning Process is Irrational Robert Mayer writes that "planning involves a continually spiraling process of forethought, action, evaluation, and revision" (1985, p. 111). Evaluation tends to assume a linear process, almost like a production line, where the plan is created, implemented, and then evaluated at the end of the line. The idea of an overlapping, non-linear planning process wreaks havoc with the concept of "post hoc" evaluation as we know it. In fact, the very notion of an "outcome" would need to be revisited. Furthermore, if evaluations are rational but the planning process is irrational, we may be trying to insert the proverbial square peg into a round hole. Rossi et al. (1979), explain that legitimate evaluations rely on measurable goals, impact models, and clearly defined target populations—in other words, a rational planning process. Clearly city planning is not a rational planning process, so it does not behoove us to use a rational tool like

evaluation to measure it. However, the alternative is quite difficult to imagine—after all, what would an "irrational" evaluation look like?

Technical Obstacles

City planning evaluations face a number of technical challenges, including assessibility, causal attribution, and replication issues.

Assessibility   Some of the more subjective plan goals, like protecting view corridors or increasing a community's sense of place, may be somewhat difficult to evaluate. Although planners and landscape architects have developed measurement criteria for these issues, the expense of assessing such goals might be considerable.

Causal Attribution Issues   Many powerful forces affect the landscape of the city, including economic forces, political factors, and demographic changes. Attributing any long-term change of a community to a given plan, rather than to these forces, could be extremely difficult, and some even argue impossible (Wildavsky 1973). Moreover, Rittel and Webber (1973), making a related argument, suggest that we cannot tell whether or not we have solved planning problems due to their "wicked" character (in part because the solution is inherently tied up with the definition, because there is no stopping rule, and no immediate test of a solution). This lack of causal knowledge suggests that we cannot truly know the effects or outcomes of the plan, thus making evaluation a potentially questionable endeavor. Talen (1996) suggests that we side-step the issue of causality by examining the association, rather than the causation, between outcomes and policies. In a similar vein, Innes and Booher (2000) note that measures like indicators can usefully focus on the direction of change rather than its causes.

Replication   City planning efforts are not replicable because no two cities are alike. Consider the replication problems inherent in a landscape architecture plan: the plan is tailored to a specific site with specific soil, sun, and hydrological conditions, and these planting prescriptions are hardly relevant to any other site. The city, with its own particular socioeconomic conditions, physical fabrics, and history, changing significantly from year to year, faces similar challenges. In other words, city plans are not replicable across time or space—that plan will never be created again, either in the same jurisdiction or in another. Thus, evaluations may be of little use.

Lack of Theory Wolcott argues that theory helps us identify and link to prior work and provides a way for us to connect our insights from case studies to a broader series of problems (Wolcott 1995). However, a well-developed body of evaluation theory for city planners does not exist. This lack of theory might dissuade potential evaluators; they would neither know how to conduct the evaluation nor how to place it in an appropriate context. This lack of theory also inhibits the possibilities for technology transfer.

Synthesis

With all these disincentives, it should not surprise us that planners choose not to formally evaluate their work. The planner who wants to evaluate will face several disincentives: the process will be costly, politically dangerous, and technically difficult. Furthermore, professional norms and procedural requirements will not inspire her to action. Last but not least, she will face a formidable psychological barrier—if outcomes are irrelevant, and the planning process is irrational, then the evaluation will be of little use.

Incentives: Why Evaluate?

"Evaluation practiced at the highest level of the state-of-the-art is one means of speeding up the processes that contribute to human and social progress" (Rossi et al. 1979? p. 284).

With all the disincentives described above, why would a sane planner ever consider evaluation? Despite the disincentives, an evaluation may help us improve our products, legitimize our work in the eyes of the public, decrease the cost of future plan revisions, and increase our procedural efficiency. Planners may also have a moral duty to evaluate.

Program Improvements and Moral Duty

By pinpointing areas of program weaknesses and successes, evaluations may help planners improve their programs. We may not be able to fix a program and make it successful, but at least we can weed out patently bad planning techniques for certain objectives (for example, large-lot zoning, with its potentially exclusionary effects, will not function well as a tool for creating low-income housing).

Moreover, planners may have an implied moral duty to evaluate. From this perspective, planners use public funds and claim to make things better, thus they ought to be able to prove it. Furthermore,

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planners have a responsibility to pass on the legacy of program-specific understanding to their successors and peers. Two tenets of the American Institute of City Planners' (AICP) Code of Ethics and Professional Conduct support this assertion. Tenet A.1. states that a planner " must have special concern for the long range consequences of present actions" (American Planning Association 2003). However, unless planners undertake some form of evaluation, it may be difficult to fully appreciate the long-range consequences of present actions and plans. Tenet C.4. holds that "A planner must share the results of experience and research which contribute to the body of planning knowledge" (American Planning Association 2003). Evaluations provide an opportunity to transmit and share that experience and research, strengthening the feedback loop for future planning efforts by helping planners to avoid the mistakes and capitalize upon the successes of the past.

Legitimization, Fundraising, and Public Relations

Evaluations provide a way for planners to prove that their services are valuable and thus could be an important source of legitimization. As Alexander and Faludi put it, "If planning is to have any credibility as a discipline or a profession, evaluation criteria must enable a real judgment of planning effectiveness; good planning must be distinguishable from bad" (1989). Beyond mere legitimization purposes, the evaluation might help increase resources for planning. Social service providers often use evaluations as fundraising tools or for board development and public relations. Planners could theoretically use evaluations to increase funding and resources for their programs (assuming that evaluations reveal some successes). However, because plan funds are typically derived from the general fund rather than external grants, there may be little room for funding increases. Nevertheless, the public relations aspects could also prove valuable to planners, as Howell Baum has found that the public lumps planners with the "multitude of government employees who cost vast amount in taxes and accomplish little" (Baum 1983, p. 2).

Decreased Costs of Plan Updates

Larz Anderson suggests that annual reviews of a general plan, accompanied by minor modifications, may preclude "and be preferable to, major overhauls every five years." He further notes that undertaking a thorough remake of a general plan is "expensive, harrowing, and time consuming. It should be avoided if reasonable alternatives are available. In other words, without evaluation and amendment, the plan

"decays into obsolescence" and requires a major overhaul (Anderson 1995, pp. 124-125). Though few jurisdictions overhaul their plans every five years, more frequent reviews could potentially reduce future costs.

Procedural Efficiency

Evaluations could potentially improve the procedural efficiency of planning departments. Minnery et al. (1993) argue that evaluation benefits urban policy decision makers by: assessing priorities; testing if outcomes achieve stated goals; identifying successes that can be built upon, secondary benefits, and unintended adverse consequences; and helping more effectively allocate resources between new and existing programs. Schaenman (1979) further argues that structured evaluations are more consistent than ad-hoc evaluations, provide clarity, help defend future decisions, identify gaps in local tools, expertise or data, help train new staff and commission members, and provide for a common language between the planning departments and line agencies.

Synthesis

Evaluations could benefit planners by improving programs, legitimizing planning efforts, increasing procedural efficiency, and possibly decreasing the cost of future plan updates. Furthermore, planners may have a moral duty to evaluate their work.

Conclusions and Future Research Directions

In summary, we can conclude that: 1) city planners generally do not conduct post-hoc evaluations of their work—at least not in ways readily apparent to academics; 2) several evaluation models exist (Table 4), yet most are ill-defined and difficult to operationalize; and 3) a wide variety of factors, from costs to politics, discourage planners from evaluating their work. Though there are compelling reasons to evaluate, the incentives that exist are not sufficient to stimulate evaluations.

Empirical research is critically needed at this juncture. This article suggests that planners may be evaluating informally (e.g., evaluating general plans through subsequent land use inventories, checklists, and neighborhood plans). If planners are evaluating, how so and at what junctures? What triggers such evaluations (e.g., changes in administration, debates about specific issues, state requirements, and adoption of new ordinances)? Along with empirical research, further normative discussions are warranted. In what context should planners

evaluate "little e" goals or "Big E" changes? How does the public view these plans—as a tacit contract that binds the planners to faithful implementation, or as a rough, disposable guide that provides general direction? How might planners foster a constituency for evaluations and should they?

Table 4: Evaluation Models from Three Sources

Guidebooks	Plans	Evaluations
Annual reports	Checklists	Spatial comparisons
Cost-effectiveness analysis	Using area plan to review zoning ordinance	Decision consistency/ indicators
Trends-based analysis	Using area plan to review general plan	Value-driven
Indicators	Using inventory to evaluate prior general plan	Wholistic case studies
Planning monitor		Invisible/ incremental

New evaluation models are needed, models that take advantage of the skills of the typical planner. For example, since planners seem to be attracted to case studies as an evaluation mechanism, perhaps we could train planners to conduct case studies more systematically. The typical city planner also has extensive committee management experience (although ironically, we woo the public for the planning phase, then shoo them away once the plan has been adopted). Perhaps we could experiment with post-plan adoption/evaluation committees, such as the implementation committees used in national estuary plans (although planners may resent this additional layer of oversight). New techniques should also exploit the physical dimension of the city—for example, videotaping projects that record the city at the start of the plan, and then at its conclusion. Strategies are also needed to link evaluations to the earlier phases of the planning process. Moreover, strategies to foster post-hoc evaluations should be identified, such as state funding or requirements, additional professional standards, and model evaluation guidebooks.

In short, the picture we have painted of city planning evaluation is a rather discouraging one. However, future research might yet discover a wealth of empirical evaluation techniques and may refine the evaluation models so that we may better meet Wildavsky's dictum that "promise must be dignified by performance" (1973, p. 129).

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