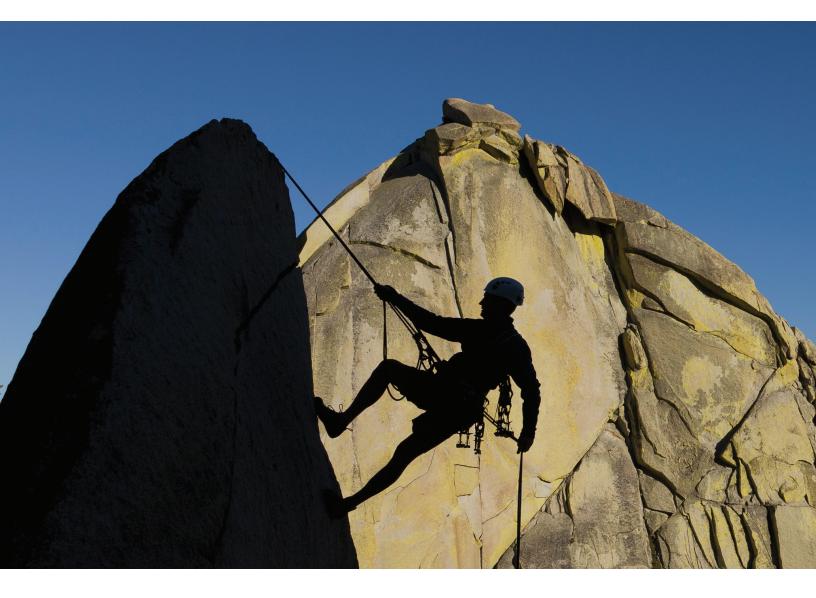


The Persistence of Innovation in Government

A Guide for Innovative Public Servants



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The Persistence of Innovation in Government: A Guide for Innovative Public Servants

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Foreword

On behalf of the IBM Center for The Business of Government, we are pleased to present this report, *The Persistence of Innovation in Government: A Guide for Public Servants*, by Sandford Borins, Professor of Public Management at the University of Toronto and Research Fellow at the Harvard Kennedy School.

With this report, Professor Borins continues two decades of research analyzing winners of and applicants to the Harvard University Kennedy School's Innovations in American Government Awards. This report presents a comparison of the applications received by the program in the 1990s (1990 to 1994) with those received in 2010. In 2001, the IBM Center for The Business of Government published *The Challenge of Innovating in Government*, Professor Borins' report on his 1990s research on innovation.

Professor Borins has found that innovation is alive and well and persisting at all levels of government in the United States, with both shifts and continuities from the 1990s to 2010. One of the most significant findings by Professor Borins is the increasing proportion of innovation initiatives involving collaboration. In 2010, 65 percent of the innovation applicants reported external collaboration as a project component—more than double the 28 percent reported in the 1990s. Nearly 60 percent of the applicants also reported collaboration within government. Significantly, award semifinalists in 2010 reported an even higher incidence of collaboration, with over 80 percent of the semifinalists reporting external collaboration and collaboration within government.

The important trend toward external collaboration and collaboration within government has also been reflected in the increased number of IBM Center reports focusing on "collaborating across boundaries." In 2013, the IBM Center published seven reports on collaboration, including *Implementing Cross-Agency Collaboration: A Guide for Federal Managers,* by Jane Fountain; and *Collaboration Between Government and Outreach Organizations: A Case Study of the Department of Veterans Affairs,* by Lael Keiser and Susan Miller.



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Dr. Jane L. Snowdon

Professor Borins concludes his report—which is a companion to his book, *The Persistence of Innovation in Government*, published concurrently by Brookings—by emphasizing the importance of partnerships among awards programs, academics, and practitioners as key to spurring future innovations. Moreover, the report calls for continued research on innovation in government. Professor Borins argues that it is crucial to understand trends in innovation more deeply and to identify jurisdictions or organizations that support and encourage multiple innovations over time. We strongly support this call for more research on innovation.

We trust this report will encourage government practitioners, government executives, and elected officials to continue their pursuit of innovation.

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Introduction

Innovation in government persists. Despite continued skepticism about whether large, hierarchical, monopolistic government agencies can initiate and embrace change, there is extensive evidence that they can, they do, and they will. Innovators persist. In the face of the obstacles inherent in the process, despite the risk of failure, despite the time, energy, persuasion, and improvisation required to bring an innovation to fruition, public servants continue to find new ways to create public value.

Innovation awards also persist, bringing wider recognition to innovators' efforts among practitioners, scholars, and the general public, encouraging new generations of change agents, experimenters, and local heroes. One award program—Harvard University's Kennedy School's Innovations in American Government Awards (HKS Awards), established in 1985—provides the qualitative and quantitative data this report is based on.

This report is for those already engaged in the process of innovation, and is also intended to inspire and assist future innovators. The goal is to increase the amount of innovation in government.

Innovation rarely appears in the title or job description of a public servant. Unlike staff in a private sector research laboratory, government employees are not tasked with developing new products to boost profits or market share. Public servants innovate as a way of solving the myriad policy and management problems they confront daily.

The urge to innovate is also born of a belief in government as a solution, a belief that government can find better ways to deliver services. Innovators share a conviction that creative problem solving, inspired improvisation, experimentation, and risk-taking within their organizations are possible. The research that is the foundation of this report shows that innovators are found at all levels of government. The potential audience for this report can be found throughout the public sector.

What does the landscape of public sector innovation now look like and what does this mean for innovators and those who study their efforts? These are the report's central concerns. The landscape is mapped through comparative longitudinal analysis of two sets of innovation data, which reveals both significant shifts and important continuities. Recommendations based on these findings are presented for innovative practitioners at all levels of government and for government executives who can influence an organization's climate for innovation. The report concludes with a discussion about how innovation awards programs, academics, and practitioners can build a three-sided partnership that will enhance public sector innovation.

The data that supports this report's findings is derived from statistical analysis of 2010 HKS Awards applications and comparisons to similar analysis of an earlier set of applications from the years 1990 to 1994. Previous publications, including a report for the IBM Center for The

Business of Government (Borins 2006), presented the earlier findings and provide a detailed set of comparators for the current data (Borins 1998, 2000, 2001).

Innovation in government is a global phenomenon. While this report focuses on the United States, awards programs and research projects in other countries are referenced briefly to describe significant worldwide developments and compare them with the American experience.

Study Findings

Elements of Change

Finding One: Interorganizational collaboration has increased

Finding Two: Both shared and overall funding have increased

Finding Three: The innovation agenda has changed in every policy area

Finding Four: Media and public interest in innovation have increased

Finding Five: Innovations are being evaluated more often

Finding Six: Innovations are being transferred more frequently

Elements of Continuity

Finding Seven: Innovation continues to originate at all organizational levels

Finding Eight: Innovation continues to result from proactive problem solving

Finding Nine: Innovators are still more likely to be strategic planners than adaptive incrementalists

Finding Ten: Innovators continue to face bureaucratic resistance, external opposition, and funding shortfalls

Finding Eleven: Innovators overcome obstacles through persuasion, accommodation, and persistence

What Have We Learned about Innovation In Government?

Elements of Change

There have been significant changes in U.S. public sector innovation since the early 1990s. While these changes have not transformed the innovation landscape beyond recognition, they constitute important new landmarks.

- First, there has been a major increase in interorganizational collaboration, with significant implications for the funding and organizational structure of innovation.
- Second, there have been marked shifts in the innovation agenda—the content of innovation in each of the six major policy areas used by the HKS Awards in making their selections.
- Third, societal awareness of public sector innovation has increased to the point where it is no longer a matter of only specialist concern among public servants, the proverbial inside baseball. Public sector innovation has become more transparent, with increased media attention, more external evaluation, and more transfer of innovative ideas and practices.

Finding One: Interorganizational Collaboration Has Increased

Table 1 shows the dramatic increase in interorganizational collaboration over the past decade. This increase is seen in both collaboration within government (58 percent versus 21 percent in the early 1990s) and external collaboration between government and other sectors (65 percent versus 28 percent in the 1990s). The 2010 results were for initial applicants to the HKS Awards, whether or not they were selected as semifinalists. The two groups had a similar incidence of collaboration, evidence of the widespread nature of its increase.

Researchers in other countries corroborate that collaboration is increasingly characteristic of innovation. The scholars Farah and Spink observed that 80 percent of the applications to the Brazilian state and local government innovation awards between 1996 and 2005 reported collaboration between government agencies, the nonprofit sector, and/or business (2008, p. 83). While the European Commission's Innobarometer survey of public sector innovation in 4000 organizations in 27 European Union countries (Director General Enterprise and Industry 2010, p. 43) used organizations rather than innovations as its unit of analysis, it also provided evidence of substantial collaboration. When asked how their service or process innovations were developed:

- 75 percent of organizations sampled replied that they developed innovations by themselves
- 65 percent developed innovations with other public sector organizations
- 45 percent developed innovations with nonprofits
- 31 percent developed innovations with business

(Responses for the European Commission's Innobarometer survey total more than 100 percent because respondents could report more than one type of innovation.)

Characteristic	All 2010 Applications	1990 to 1994 Semifinalists
External Collaboration	65%	28%
Collaboration within Government	58	21
Information Technology	36	28
Process Improvement	29	34
Citizen Empowerment	16	26
Use of Volunteers	13	7
Use of Market Incentives	10	8
Changes Public Attitudes	11	13
Total Characteristics	238	165
N	234 (126 not selected + 108 selected)	217
Estimated Slope		insig.
Estimated Intercept		insig.
R-squared (goodness of fit)		.29 (insig.)

Table 1: Characteristics of Innovations, 2010 Initial Applications (Semifinalist and Non-Semifinalist) and 1990 to 1994 Semifinalists

Note: Column entries are percentages of N, the number of cases for each group, and will add to more than 100 because most innovations have several characteristics. insig. = insignificantly different from zero.

Source: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 2.1 (p. 20) and Table 2.2 (p. 26).

One possible reason for the significant increase in collaboration is that innovative public managers are involved more often in solving difficult, complex problems that cross organizational boundaries. In many instances, the public sector lacks the money to achieve its goals and needs contributions from the private and voluntary sectors. This is true of urban redevelopment initiatives like New York City's Bryant Park Corporation.¹

In other situations, collaboration is necessary when many stakeholders are sharing a common resource, such as a river basin. Watershed management partnerships, such as the Santa Ana (California) Watershed Project Authority, facilitate the participation of all stakeholders. In other words, managers and organizations now collaborate because they must. Collaboration, therefore, can fairly be taken as a feature of the innovation landscape, emergent in the early 1990s and well established, even permanent, now.

When the more detailed questionnaires completed by the 127 HKS Award semifinalists in 2010 were coded, the frequency with which the characteristics occurred changed from the frequencies for the initial applications (shown in Table 1) because the more detailed questionnaires permitted a more comprehensive presentation of the components and functioning of the innovations. Table 2 displays the frequencies of the characteristics that were coded for all 127 semifinalists.

^{1.} This report refers to 2010 HKS Awards semifinalists that serve as particularly apt examples. Information about them is available on request.

Characteristic	All Semifinalists
Collaboration within Government	81%
External Collaboration	80
Process Improvement	70
Information Technology	41
Citizen Empowerment	24
Use of Volunteers	12
Use of Market Incentives	6
Organizational Change in the Public Sector	3
Total characteristics	383
Ν	127

Percentages total more than 100 as innovations can have more than one characteristic. **Source:** Semifinalist questionnaires.

A significant finding depicted in Table 2 is the large amount of reported interorganizational collaboration in government, namely collaboration within one government and/or collaboration across levels of government. Similarly, there was a great deal of collaboration with the private sector and/or the nonprofit sector. Both types of collaboration (internal and external) were reported by 80 percent of the sample.

Collaborations ranged from formal partnerships among two or three small local governments sharing a function, such as property assessment or firefighting, to larger, more formal collaborations, such as the Regional Greenhouse Gas Initiative, a carbon-trading initiative involving the public utilities of 10 eastern seaboard states, to very large collaborations such as the Santa Ana Watershed Project Authority.

In addition to the salience of interorganizational collaboration, improving a management or production process was interpreted broadly and reported frequently (70 percent). Four in 10 innovations involved information technology (41 percent) and one-quarter featured citizen empowerment (24 percent). Volunteers from the public (12 percent) and market incentives (6 percent) were used more occasionally. The characteristic occurring least frequently in 2010—organizational change in the public sector (3 percent)—was much more common two decades ago.

In the early 1990s, innovation usually meant internal organizational improvement, often by importing private-sector practices (customer service enhancement, total quality management). Many public sector organizations, having made considerable progress on that internal work, have now turned to collaborative problem solving.

Finding Two: Both Shared and Overall Funding Have Increased

The increasing salience of interorganizational collaboration has significant implications for the funding of innovations. Table 3 compares the government level of the agency making the semifinalist applications with the levels of government and organizations outside government that contributed to their funding.

There is a growing diversity of funding sources. Roughly 10 percent of the applications were submitted by federal government programs, 40 percent by state government programs, and

Source of Funding	Level of Government Applying	Semifinalists Receiving Funding	Average Percentage of Budget Provided by Source
Federal Government	9%	45%	56%
State Government	39	47	54
Local Government	52	47	64
Private Sector		24	41
Nonprofits		17	27
User Fees		13	51
Total	100	193	
Ν	127	127	

Table 3: Sources of Funding for 2010 Semifinalists

Source: 2010 semifinalist questionnaires.

50 percent by local government programs. While only 10 percent of the semifinalists were federal government programs, the federal government provided some funding for 45 percent of the semifinalists; state government provided some funding for 47 percent, and local government provided funding for 47 percent. Some inferences may be drawn here.

Since 52 percent of the semifinalists were from local government, and local government was a funding source for 47 percent, a segment of local government semifinalists received their funding entirely from sources other than local government. One quarter (24 percent) of semifinalists received funds from the private sector and 17 percent from nonprofits, particularly foundations. The average semifinalist received funding from approximately two sources (the sum of the percentages receiving each type of funding). The last column of the table shows the average percentage of the budget of the semifinalists provided by each source of funding. These range from 27 percent by nonprofits to 64 percent provided by local government. Clearly, the different funding sources are not providing token amounts, but rather major funding.

Interorganizational collaboration now extends beyond merely participating on steering committees, which often was the case in the early 1990s, to active engagement as well as providing funding. Because the federal government was not eligible to compete for awards in the 1990 to 1994 HKS Awards, funding sources for that period were not compared to those for the 2010 semifinalists. Nevertheless, shared funding has now become an important characteristic of collaborative innovations. This finding has implications for would-be innovators (where to look for funding) and for potential funders (what they want to achieve by contributing and how to monitor progress).

Table 4 shows that the average population reached by the HKS Award semifinalist innovations —202,000 in the early 1990s and 236,000 in 2010—and the percent of the target population reached—slightly below 50 percent over two decades—have remained relatively constant. What has changed dramatically, however, is the average operating budget, which has increased by 360 percent, from \$5.9 million to \$21.5 million. Slightly over half of this increase was due to inflation (67 percent between 1990 and 2010) and the 17 percent increase in population reached. An initial explanation for the remainder of the increase would be that innovators can now tap more funding sources. In addition, as discussed under Finding Four below, there is greater public interest in and appreciation of public sector innovation, which would support decisions by public servants and elected officials to increase funding for innovations.

	2010 Semifinalists	1990 to 1994 Semifinalists
Average Population Reached	236,000	202,000
Percent of Target Population	47%	48%
Average Operating Budget (\$ millions)	\$ 21.5	\$ 5.9
Ν	127	217

Table 4: Innovation Budgets

Sources: 2010 applications. For 1990–94 semifinalists, see Borins (1998), Table I-2 (p. 126) for average population and percent of target population reached, and Table 5-1 (p. 93) for average operating budget.

Finding Three: The Innovation Agenda has Changed in Every Policy Area²

A policy area as defined by the HKS Awards represents a set of government organizations with comparable functions. Police forces and correctional systems that together constitute the criminal justice and public safety area are a good example. At any point in time, innovations diffuse within those comparable institutions in a process described by Rogers' (2003) logistic curve: initially slow adoption, speeding up when awareness of the innovation and its advantages becomes widespread, and finally slowing down as saturation is reached.

There has been considerable change in most of the six policy areas defined by the HKS Awards. Some of this change is the consequence of new policy priorities over the last 15 years, which have led to the creation of new types of programs vying for recognition from a major innovation award.

Conversely, some change results from previous innovations running the course from novel experiment to accepted practice. Late adopters do not seek recognition from an award that puts a premium on novelty. The movement is cyclical: new foci appear and established ones fade within each policy area. These shifts constitute the content of innovation, as distinct from the process.

Shifts within the six policy areas follow, listed from the most changed to the least.

- **Transportation, infrastructure, and environmental** initiatives now focus on increasing energy efficiency and promoting sustainability, particularly by reducing production of greenhouse gases. This represents an almost complete change in focus from two decades ago. In the early 1990s, environmental initiatives dealt primarily with water and soil pollution. Transportation and infrastructure initiatives are also far less common today than in the earlier period.
- Community and economic development innovations have become much more diverse, including:
 - Initiatives supporting the technology-driven "new economy"
 - Urban development initiatives, particularly nongovernmental support for the revitalization of urban parks
 - Rural development initiatives

^{2.} Borins, *The Persistence of Innovation in Government* (2014) provides a detailed discussion of how the nature of innovations in each of the HKS Awards' six policy areas has changed over two decades, as well as thumbnail sketches of each of the 127 semifinalists, with the discussion organized by policy areas and themes within the policy areas (chapter 7, pp. 143–179).

 Attempts to deal with the consequences of the mortgage foreclosure crisis, either by preventing foreclosures, or, if that is not possible, maintaining the housing stock or converting it to other productive uses

Two major new public funding sources for community and economic development initiatives have been tobacco settlement funds and the American Recovery and Reinvestment Act. Innovation initiatives in the early 1990s often involved support for community building in urban ghetto neighborhoods. These locations, as well as other areas such as new subdivisions, have all been hit hard by the recent foreclosure crisis, with the result that government intervention is being undertaken on a much larger scale than imaginable two decades ago.

- The criminal justice and public safety policy area is no longer dominated by a single theoretical model as it was in the early 1990s. Community policing, the single most influential theme then, is now standard practice. No other single focus, practice, or theory has taken its place. Instead, the corrections system encompasses a variety of initiatives in both adult and juvenile justice, as well as programs for target populations at risk of entering the corrections system, such as the mentally ill or young people who have committed minor offenses. Innovations, often employing new technologies, in areas such as surveillance and identity management are aimed at enhancing public safety in the challenging post-9/11 environment.
- The health and social services policy area now has more innovative programs to provide health care for the uninsured, as well as programs to enhance youth fitness and integrated approaches to simplifying and improving access to social benefits. The improved access to health care may be subsumed under the Affordable Care Act. If so, the Act's complexity, as well as the obligations it places on the states, may spark new state-initiated innovations to implement it effectively and equitably.
- Education and training initiatives have continued to focus on innovative schools, now usually structured as charter schools. The major change in this policy area from the early 1990s is an increased emphasis on programs to improve teacher quality, especially by using pay for performance incentives (and presumably dismissal for bad performance). Some jurisdictions, like the Boston Public Schools, have begun to manage their own teacher training. Dropout recovery, which some charter schools have begun to focus on, is a new theme. Finally, distance education initiatives that previously used interactive television as a platform are now inevitably and much more comfortably being accommodated by the Internet.
- **Management and governance** initiatives continue to be dominated by new technology, which is now focusing on new software and applications development, or on applications of social media to the public sector. There are far fewer organizational restructuring initiatives. One possible explanation is that today's government executives have benefited from their predecessors' earlier restructuring initiatives. The one new theme in this policy area is the establishment of large-scale volunteer programs. Undoubtedly, new social media technologies and the crowdsourcing approaches they foster play a role in this.

Finding Four: Media and Public Interest in Innovation Have Increased

The public of today is significantly more interested in public sector innovation than the public of two decades ago was, as shown in Table 5. Almost nine in ten of the 2010 semifinalists said their innovations received media coverage. In contrast, just under half (46%) of the 1990 to 1994 semifinalists reported that their program received media coverage. In 2010, semifinalists reported coverage from local or state media (74 percent), professional or trade media (62 percent), and national media (43 percent). This is in marked contrast with two decades ago.

Media Attention	2010 Semifinalists	1990 to 1994 Semifinalists
Local or State Media	74%	NA
Professional, Trade	62	NA
National Media	43	NA
National Media, Liberal	33	NA
National Media, Center	17	NA
National Media, Conservative	14	NA
Any Media Attention	89	46
No Media Attention	11	54
Ν	127	217

 Table 5: Reported Media Attention for Innovations

Sources: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 6-4 (p. 113).

It is possible that the increase in media attention reflects a heightened awareness of public sector innovation, its greater presence on the cultural radar. It may also be part of a shift in public perceptions of government following the terrorist attacks of September 11, 2001, and the more recent global financial crisis. The public may have a new sense of innovation's value and potential positive influence on citizens' lives. This may seem paradoxical given increased polarization among citizens over the role of government and public frustration with frequent deadlocks in Congress. Perhaps this represents a compartmentalization in public attitudes: respect for the innovative capacity of government combined with dismay that political partisanship often stymies innovation.

National media outlets were grouped by those labeled liberal (*New York Times, Huffington Post, MSNBC, NPR*), those labeled as centrist (*CBS, CNN, Time, Newsweek, AP*), and those labeled as conservative (*Business Week, Forbes, Wall Street Journal, Fox News*).³ Assuming that liberal media outlets may be more positive in covering innovative and effective government programs than conservative media are and, conversely, that conservative media outlets are more likely to portray government intervention as inherently ineffective, stories of public sector innovation could be more likely to be covered by liberal media. The data are consistent with this hypothesis, with one-third of the 2010 semifinalists reporting coverage by media outlets labeled as liberal, 17 percent being covered by media labeled as centrist, and 14 percent covered by media labeled as conservative.

No patterns were evident regarding specific innovations, for example, whether innovations more consistent with liberal policies (San Francisco's health insurance program funded by a tax on employers and applicable to all individuals not otherwise covered) were more likely to be covered by media labeled as liberal, or whether those more consistent with conservative policies (Indiana's health insurance program using health savings accounts and requiring copayments) were more likely to be covered by media labeled as conservative. The media outlets labeled here as liberal may have the highest overall level of interest in public sector innovations, while those labeled conservative have the lowest, but this is not carried into a greater interest in innovations consistent with these ideological orientations.

^{3.} Though some of the increase in attention to public sector innovation might be the result of more media operating now than two decades ago, especially online, most of the media mentioned in this list were in operation then, which suggests that increased attention to public sector innovation has also occurred in the mainstream media.

Finding Five: Innovations are Being Evaluated More Often

Not only are the media, and hence the public, looking at public sector innovation more intently, but public sector innovators are inviting more scrutiny from knowledgeable assessors. The 2010 HKS Award semifinalists underwent significantly more formal external evaluation than their 1990 to 1994 counterparts. This is shown in Table 6.⁴ The proportion of semifinalists reporting policy analysis by consultants, nonprofits, or foundations increased from 25 to 42 percent, evaluation within government from 14 to 24 percent, and academic research from 12 to 23 percent. Accreditation review (6 percent) was a new category. The only type of evaluation to decrease was financial audit, from 20 to 12 percent. Financial audit, however, is the least valuable form of external evaluation. It deals only with whether money was used for the purpose for which it was appropriated, not whether the program achieved its objectives.

The percentage of programs receiving no formal external evaluation dropped from 38 percent to 28 percent. For the 72 percent of semifinalist initiatives that were evaluated, the average number of types of formal, external evaluation also increased, from 1.18 to 1.49. The applicants also reported the results of the evaluations: 42 percent of the 2010 semifinalists had completely supportive evaluations; 16 percent partially supportive evaluations, indicating both achievements and areas for improvement; and 15 percent did not report the results of their evaluations.

Formal Evaluation	2010 Semifinalists	1990 to 1994 Semifinalists
Policy Analysis by Consultants, Nonprofits, or Foundations	42%	25%
Evaluation in Government (Central Agency, Inspector General)	24	14
Academic Research	23	12
Financial Audit	12	20
Accreditation Review	6	NA
None	28	38
Completely Supportive Evaluations	42	NA
Partially Supportive Evaluations	16	NA
Results of Evaluations NA	15	NA
Responses per semifinalist	1.49	1.18
N	127	217
Estimated Slope		insig.
Estimated Intercept		insig.
R-squared (goodness of fit)		.12 (insig.)

Table 6: Formal Evaluation

Note: insig. = insignificantly different from zero

Sources: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 6-3 (p. 112).

^{4.} While applicants are requested to summarize the results of the formal evaluation, that is, self-report, the questionnaire also asks for contact information to enable verification and to reduce any temptation to filter or interpret too freely. See Question 6 of the semifinalist application in Appendix II.

A change of this magnitude invites speculation about causes. Arguably, one legacy of the Reinventing Government or New Public Management movements was the institutionalization of performance measurement, a practice that has grown increasingly easy to execute through digital feedback mechanisms. (Because the movements promised "government that works better and costs less," measurement was necessary to see if they were delivering.) It is a phenomenon Robert Behn has referred to as PerformanceStat, the ongoing measurement and analysis of government performance by both departmental managers and central leadership (the mayor or governor) to achieve continuing performance improvement (Behn 2014). Similarly, Kamensky (2013) has referred to the evolution from "reinventing government" to "moneyball government"—that is, a focus on data and what it reveals. The same technologies that enable data gathering provide forums for its public display on web portals and social media. If the overall public sector culture has been putting more emphasis on performance measurement, then that cultural change would affect innovations as well as ongoing programs.

Additionally, as public sector innovators turn to foundations for support, they are increasingly obliged to provide performance data for scrutiny (which is part of the explanation for the increase in the policy analysis of innovations). The Gates Foundation, a contributor to several semifinalists in the education and training area, is particularly exigent in its requirements. More foundation money is supporting public sector innovation than in the past—the message of Table 3—but it comes with strings attached—the message of Table 6.

Finding Six: Innovations Are Being Transferred More Frequently

Just as innovators are getting more external scrutiny from assessors, they are getting more attention from public servants in other government organizations, and this is manifest in more transfer of their innovations as seen in Table 7. The coding of answers to the transfer question differentiated between expressions of interest in transfer and actual transfer, and also differentiated among local, national, and international transfer. The implicit assumption is that actual transfer is more significant than expressions of interest in transfer, and that transfer farther away from an innovation is more significant than nearby transfer, because the former reflects an innovation's reputation spreading more widely.

National transfer levels for the 2010 semifinalists are 42 percent, compared with 24 percent in the early 1990s. International transfer was negligible (1 percent) in the 1990–1994 group and increased to 11 percent in 2010. These higher levels of actual transfer are more significant than the lower levels of interest in transfer (54 percent versus 65 percent) in the 2010 semifinalists.

Transfer	2010 Semifinalists	1990 to 1994 Semifinalists
Evidence of Local Transfer	27%	27%
Evidence of National Transfer	42	24
Evidence of International Transfer	11	1
Evidence of any Transfer	58	42
Any Interest in Transfer	54	65

Table 7: Transfer of Innovations

Sources: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 6-5 (p. 114).

Elements of Continuity

While there have been significant changes in the landscape of American public sector innovation, a great many things remain relatively constant, particularly process. The next set of findings focus on the process of introducing and implementing an innovation, factors leadings to the innovation, and the analytical process for moving from an inspiration to a program design. Findings on the obstacles faced by innovators, and the tactics they use to overcome them, are also presented.

Finding Seven: Innovation Continues to Originate at All Organizational Levels

The subtitle of *Innovating with Integrity: How Local Heroes are Transforming American Government*—the book that first analyzed the HKS Awards data—was intended to encapsulate one of its key findings: frontline public servants and middle managers are the most frequent initiators of innovations (Borins, 1998). This was surprising at the time, given the prevailing top-down and politically risk-averse image of public management. This finding remains true for the 2010 semifinalists.

Table 8 shows the pattern of answers to the HKS semifinalist application's question about initiators of innovations: "What individuals or groups are considered the primary initiators of your program?" *Innovating with Integrity* did not differentiate between frontline staff and middle managers. Subsequent research (Borins 2000, 2006) has, and has found both groups well represented, a finding that persisted for the 2010 semifinalists.

The applications tell stories about initiators of different backgrounds and personalities. These are elected officials with a vision who receive public support and then direct the bureaucracy to make their vision a reality. In contrast, there are frontline and middle manager initiators who have a vision and then build support for it within government.

Kentucky gubernatorial candidate Steve Breshear, who made open government a key theme in his 2007 campaign, mandated the construction of the state's OpenDoor transparency portal immediately upon taking office. New York Mayor Michael Bloomberg, influenced by President Obama's advocacy of citizen service in his first inaugural address, directed two staff members to design a program in a few weeks. The result was the NYC Service program, which gives thousands of New York City residents meaningful opportunities to volunteer; for example, by helping in the H1N1 virus vaccination initiative. NYC Service was selected as one of the six HKC awards finalists in 2010.

Innovation also occurs on the front line. For example, Allison Hamilton, a middle manager in Oregon's Department of Transportation, developed a plan to locate solar panels on interstate right-of-ways and use the energy to power lights for the highway. To make the plan a reality, she needed and very effectively secured the support of her superiors, other Oregon departments, and the Federal Highway Administration for what became Oregon's Solar Highway Program (Borins, 2014, pp. 67–68).

In 2010, semifinalists included a higher percentage of projects initiated by elected officials, agency heads, and program clients or partners than in the early 1990s. This may be the result of the much greater level of interorganizational collaboration displayed by the 2010 semifinalists.

The identification of a program's clients or collaborators as initiators for 27 percent of the 2010 semifinalists, as opposed to two percent for the 1990 to 1994 semifinalists (Table 8), is further evidence of that trend. Within the traditional vertical authority relationships that still govern public sector organizations and agencies, it is difficult for frontline staff or middle

Initiator	2010 Semifinalists	1990 to 1994 Semifinalists
Elected Official	34%	18%
Agency Head	44	23
Middle Manager	40	NA
Frontline Staff	22	NA
Middle Manager or Frontline Staff	46	48
Interest Group Leader or Member	11	13
Client or Partner	27	2
Citizen	4	6
Total Initiators	180	114
Ν	114	217
Estimated Slope		.88*
Estimated Intercept		insig.
R-squared (Goodness of Fit)		.56*

Table 8: Initiators of the Innovation

Note: For slope and intercept estimates and R-squared, * indicates significantly different from zero at 10 percent, ** at 5 percent, *** at 1 percent, insig. = insignificantly different from zero

Sources: 2010 applications. For 1990 to 1994 semifinalists: see Borins (1998), Table 3-1 (p. 39).

managers to initiate collaborative innovations. Collaboration usually requires agency heads or elected officials to negotiate the informal interorganizational agreements or formal written protocols that govern such partnerships.

The findings regarding the importance of middle managers and frontline staff, as well as the diverse sources of innovation, are supported by the European Commission's Innobarometer survey (Director General Enterprise and Industry 2010, p. 34). Innobarometer measured the relative importance of a variety of information sources to the development of an organization's innovations. Being the source of information, or even of an idea, is less arduous than making the idea a reality; however, this question was as close as that survey came to asking respondents to identify the initiator(s) of the innovations in their organizations. The Innobarometer survey listed several possible sources of ideas and found that ideas from management, from staff, and from citizens who were users of the service were the three most important, and all three were of equal importance.

Finding Eight: Innovation Continues to Result from Proactive Problem Solving What is the rationale for an innovation? Table 9 categorizes several. Some have multiple components: influence from the political system, new leadership (for the innovating organization), a crisis, a problem, and an opportunity. In 2010, as in the early 1990s, a crisis was defined as a publicly visible governmental performance failure, either current or anticipated, with the inclusion of anticipation broadening the definition and hence increasing its frequency (Borins 1998, pp. 44–45).

The most important result—one consistent with earlier research (Borins 2000, 2006)—is the contrast between crises and problems as factors leading to innovation. In both cases, problems

Condition	2010 Semifinalists	1990 to 1994 Semifinalists
Election Mandate	6%	2%
New Legislation or Regulation	28	11
Lobbying	13	6
All Political System Influence	41	19
New Leader	6	9
Crisis	14	30
Solves a (Non-Crisis) Problem	74	49
New Technological Opportunity	7	18
New Resources Opportunity	7	NA
Other New Opportunity	6	16
All New Opportunity	20	33
Ν	127	217
Estimated Slope		1.08***
Estimated Intercept		insig.
R-squared (goodness of fit)		.53***

Table 9: Conditions Leading to Innovations

Note: For slope and intercept estimates and R-squared, * indicates significantly different from zero at 10 percent, ** at 5 percent, *** at 1 percent, insig. = insignificantly different from zero

Sources: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 3-2 (p. 41).

appear more frequently than crises. For the 2010 semifinalists, the dominance of problem solving over crisis response became much more marked, as it was cited five times more frequently (by 74 percent of semifinalists versus 14 percent).

Problems lead to innovation more often than crises do. This has important implications for how we think about the public sector. A cynical view maintains that public sector organizations, which are often monopolies, are slow to respond to signals of public dissatisfaction with performance until the organization breaks down and experiences a publicly visible crisis.⁵

A more sympathetic view argues that public servants are aware of their organization's performance through their own formal and informal monitoring systems, and have the desire and the energy to solve problems *before* they become crises.

The data here is consistent with the more sympathetic view. It is notable that channels for public response have proliferated in the past decade—every agency has its portal—and this offers multiple means to "meter" dissatisfaction with services. It is, in fact, increasingly difficult to avoid being aware. Farah and Spink's study of the applicants to the Brazilian innovation award supports this view (2008, p. 84). They coded responses to the open-ended question of why the

^{5.} The noted economist Paul Romer's adage, "A crisis is a terrible thing to waste," can be interpreted to mean that crises can be used by advocates of change to provide an impetus for the changes they seek to implement, but that does not mean change cannot occur without a crisis.

applicant's program was innovative, and the one most frequently reported (58 percent) was that applicants were "assuming the initiative in the search for new solutions to existing problems."

Table 9 divides the category of the political system as the catalyst for innovation into three subcategories:

- An election mandate to undertake an innovation—part of the winning candidate's platform
- **New legislation or regulations**, meaning either that the innovation itself required new legislation or regulations or that it was a response to new legislation
- Lobbying indicates that either politicians or interest groups were advocating on behalf of the innovation.

The 2010 semifinalists reported political influence considerably more often (41 percent) than the 1990 to 1994 semifinalists did (19 percent).⁶ This is consistent with the higher frequency of elected officials as initiators among the 2010 semifinalists. This might be due to the need for political support to facilitate interorganizational collaboration, or it may be the case that politicians increasingly believe that championing innovation is a good electoral strategy.

What else do the data in Table 9 reveal about the impetus to innovate? New leadership, from either inside or outside the organization, infrequently appears as a factor leading to innovation (less than 10 percent for both the 2010 and 1990 to 1994 semifinalists). The cynical view of public sector organizations would argue that they are resistant to change, requiring new leaders for change to occur. The experience embodied in these innovations contradicts this view, for the vast majority of innovations were put in place by current leaders or staff.

New opportunities are the fifth causal factor and, for the 2010 semifinalists, this was subdivided into opportunities created by the availability of a new technology, by the availability of new resources, and other new opportunities. If public servants and politicians were only innovating in response to crises, it is unlikely that new opportunities would figure at all as an inciting factor. The presence of new opportunities for both the 2010 and 1990s semifinalists suggests an ongoing professional commitment to recognizing and then grasping new opportunities to innovate. Technological opportunities were cited in 18 percent of the 1990 to 1994 semifinalists, significantly higher than the 7 percent reported by the 2010 semifinalists. The 1990 to 1994 semifinalist applications reflect an earlier stage in the evolution and adoption of information technology (IT) in government; it is both more pervasive and more mature today in a public sector context, which might mean fewer new technological opportunities would appear as sources of innovation.

Finding Nine: Innovators are Still More Likely to be Strategic Planners than Adaptive Incrementalists

After considering the "who" and "why" of initiating innovations, the next question is "how." This question of technique, in the broadest sense, has important implications for would-be innovators seeking to emulate successful approaches. Book-length studies have explored this question; some scholars of private sector strategic management, most notably Henry Mintzberg (2009), and of public management, most notably Robert Behn (1988, 1991), have argued for the importance of adaptive incrementalism rather than strategic planning.

^{6.} Total political system influence is slightly less than the sum of its three components because a few semifinalists displayed more than one of the three.

Both *Innovating with Integrity* and *The Persistence of Innovation in Government* examined the semifinalist award applications for evidence of either incrementalism or strategic planning to determine the extent to which each was actually used. Adaptive incrementalism means the initiator of the innovation had an approximate idea of the shape the innovation should take at the outset and then refined that idea over a considerable length of time on the basis of learning and experience. Strategic planning occurred when the innovator had a comprehensive view of the innovation and proceeded to implement it relatively quickly and without a great deal of modification.

In the author's survey of applications to the Commonwealth Innovations Award in 1998 and 2000, there was a question on planning and incrementalism that briefly defined each approach and asked the innovator whether the process could better be described as planning, incrementalism, or a mix of the two (Borins 2001, question 6, p. 730). For the HKS Awards, this question was not asked explicitly but the answer was inferred from the application in its entirety.

In all these studies, planning was observed more frequently than incrementalism. The 2010 semifinalists showed much more planning (70 percent) than either incrementalism (17 per cent) or planning and incrementalism together (11 percent). Significantly, when innovators were explicitly asked in the Commonwealth survey, over one-third (36 percent) cited both (see Table 10).

Mode of Analysis	2010 Semifinalists	1990 to 1994 Semifinalists	Commonwealth, 1998 and 2000
Comprehensive Plan	70%	59%	43%
Incrementalism	17	30	17
Planning and Incrementalism	11	NA	36
Pilot Study or Project	41	35	20
Public Consultation	35	11	16
Legislative Process	27	8	2
Task Force	26	0	0
Consultant	17	7	0
Organizational Strategic Plan	13	7	7
Replicate Public Sector	0	12	14
Replicate Private Sector	8	0	0
Replicate Nonprofit Sector	0	4	0
Client Survey	2	4	16
Ν	127	217	56
Estimated Slope		.93***	.78**
Estimated Intercept		insig.	insig.
R-squared (goodness of fit)		.65***	.31**

Table 10: Modes of Analysis for Innovations

Note: For slope and intercept estimates and R-squared, * indicates significantly different from zero at 10 percent, ** at 5 percent, *** at 1 percent, insig. = insignificantly different from zero

Sources: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 3–5, p. 50. For Commonwealth, see Borins (2001), p. 727.

The broad conclusion is that formal planning and adaptive implementation are both important. In addition to these two fundamental approaches, a number of other types of analyses preceded their innovations, including pilot studies or projects, public consultation, task forces, consultants' reports, and strategic plans for the entire organization.

Finding Ten: Innovators Continue to Face Bureaucratic Resistance, External Opposition, and Funding Shortfalls

Implementation of an innovation necessarily involves winning support. Decision-makers need to be convinced, partners need to be brought on board, and potential users of the innovation should be contacted. The dynamics of winning support were explored in a three-part question in the semifinalist questionnaire that posits a process of encountering and then overcoming (or at least living with) a set of obstacles: "Please describe the most significant obstacle(s) encountered thus far by your program. How have they been dealt with? Which ones remain?"

Table 11 shows 16 reported types of obstacles. The table's last line shows that the semifinalists reported an average of slightly more than two "most significant" obstacles.

The obstacles themselves can be organized into three groups. Together, they offer a cogent reminder of just how complex an enterprise innovating is, how many competing organizational and personal interests must be balanced, and how many logistical pitfalls must be avoided to achieve a successful outcome.

The first group of obstacles consisted of barriers arising primarily within the bureaucracy. These included forms of resistance such as hostile or skeptical attitudes or turf fights, difficulty coordinating organizations, logistical problems, difficulty maintaining the enthusiasm of program staff (burnout), difficulty implementing a new technology, opposition by unions, opposition by middle management, and opposition to entrepreneurial action within the public sector.

The second group included obstacles arising from the organization's external environment. Some of these arose in the political environment: legislative or regulatory constraints, political opposition, the concern that an innovation will not survive the transition to new political leadership, and public doubts about the effectiveness of the program (which would be conveyed to the politicians). Other obstacles arose from the economic and social environment: difficulty reaching the program's target group, opposition by affected private sector interests, and opposition from private sector entities that would be forced to compete with the innovative program.

Lack of resources was classified separately because it might be due to constraints at either the political or bureaucratic levels.

More than 50 percent of the obstacles reported by both the 2010 and 1990 to 1994 semifinalists were internal. They reflect the tendency of innovations to challenge occupational patterns, standard operating procedures, and power structures. It is surprising that the 2010 semifinalists, despite their much higher level of interorganizational collaboration, reported coordination problems less frequently (5 percent) than the 1990 to 1994 semifinalists (10 percent). The good news implicit in this finding may be that the American public sector has become both more comfortable with, and more proficient at, managing interorganizational collaboration, drawing on an accumulating body of research and experience.

Legislative or regulatory constraints occurred when an innovator was hampered by legislation or regulations that had been enacted previously to address other issues or problems, or what Allison Hamilton, originator of Oregon's Solar Highway program, called "words on paper written long ago." Her particular phrasing reveals an optimistic resolve not to be daunted by this

Obstacle	2010 Semifinalists	1990 to 1994 Semifinalists
Bureaucratic Resistance	15%	18%
Coordination	5	10
Logistical	21	10
Burnout	4	6
Technology	6	6
Unions	0	1
Middle Managers	0	1
Oppose Public Entrepreneurs	0	1
Total Internal Obstacles	51	55
Laws, Regulations	3	7
Political Opposition	2	2
Political Transition	3	NA
Public Doubt	8	10
Reaching Target Group	8	6
Affected Interests	4	3
Competitors	1	1
Total External Obstacles	29	29
Lack of Resources	18	17
Total Number of Obstacles	284	512
Obstacles per Semifinalist	2.2	2.4
Estimated Slope		1.0***
Estimated Intercept		insig.
R-squared (goodness of fit)		.70***

Table 1	1: Obst	acles to	Innovation
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Note: For slope and intercept estimates and R-squared, * indicates significantly different from zero at 10 percent, ** at 5 percent, *** at 1 percent, insig. = insignificantly different from zero.

Sources: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 4-1 (p. 67).

type of obstacle. The infrequency of political obstacles may mean that bureaucratic innovators were often working far enough from the political level that they largely escaped notice by politicans. If, however, their innovations did register at the political level, they had the political acumen to understand what was politically feasible and gauge their actions accordingly, fore-stalling political intervention or obstruction.

Finding Eleven: Innovators Overcome Obstacles through Persuasion, Accommodation, and Persistence

In the face of numerous obstacles, semifinalists used an impressive set of tactics in response. Table 12 shows 18 tactics used to deal with the obstacles to innovation and records the number of times each was cited. The average number of tactics per applicant is quite close to the average number of obstacles, which indicates that applicants were actively trying to overcome

Tactic	2010 Semifinalists	1990 to 1994 Semifinalists	
Show Benefits	10%	11%	
Social Marketing	6	5	
Demonstration Project	4	5	
Total Persuasion Tactics	20	21	
Consultation	11	9	
Co-optation	7	8	
Training Provided	6	10	
Program made Culturally Sensitive	0	3	
Compensation	1	1	
Total Accommodation Tactics	25	31	
Finding Resources	12	10	
Persistence	8	9	
Solve Logistical Problems	14	8	
Find Support in Bureaucracy	3	NA	
Build Political Support	6	5	
Focus, Clear Vision	6	4	
Modify Technology	4	4	
Change Laws	2	2	
Provide Recognition	0	1	
Change Managers	0	1	
Other Tactics	55	44	
Total Number of Tactics	302	533	
Average Tactics per Semifinalist	2.4	2.5	
Obstacles Overcome (%)	77%	58%	
Estimated Slope		1.08***	
Estimated Intercept		insig.	
R-squared (goodness of fit)		.74***	

Table 12: Tactics used to Respond to Obstacles	Table	12:	Tactics	used	to	Respond	to	Obstacles
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Note: For slope and intercept estimates and R-squared, * indicates significantly different from zero at 10 percent, ** at 5 percent, *** at 1 percent, insig. = insignificantly different from zero

Sources: 2010 applications. For 1990 to 1994 semifinalists, see Borins (1998), Table 4-2 (p. 72).

obstacles rather than passively accepting them. As with the obstacles, the tactics appear with similar frequencies for both the 2010 and 1990 to 1994 semifinalists. The first three tactics—showing the benefits of an innovation, establishing demonstration projects, and social marketing—can be seen as varieties of persuasion. They represent approximately 20 percent of the total number of tactics for both groups.

The next five tactics—consultation with affected parties, co-optation of affected parties by involving them in the governance of the innovation, providing training for those whose work

would be affected by the innovation, compensating those whose interests would be adversely affected by an innovation (such as workers made redundant by information technology or middle managers made redundant by organizational restructuring), and increasing a program's cultural or linguistic sensitivity—were all ways of accommodating people who saw themselves as adversely affected by the innovation. These five types of accommodation represented 25 to 30 percent of the total number of tactics.

The salience of persuasion and accommodation as tactics—almost half of all instances of tactics used to overcome opposition—makes clear that the innovators were taking objections seriously, and attempting either to change the minds of opponents or skeptics, or modify the innovation so that opponents or skeptics would be more comfortable with it. The frequent occurrence of both persuasion—convincing your interlocutors that you are right—and accommodation—accepting that your interlocutors have a point and attempting to respond to it speaks to the difficult balance a successful innovator must strike, between singleness of purpose and adaptability of process.

Other tactics employed by the semifinalists in both periods were targeted to particular problems. These include finding resources, solving logistical problems, building political support, modifying a technology to make it more user-friendly to staff and/or users, and changing previously enacted laws or regulations that constrain an innovation.

Two tactics apply to virtually any obstacle: persistence and having a clear and focused vision. It is instructive that the least frequently used tactic was a "power politics" approach—changing managers responsible for program implementation. The innovators usually attempted to persuade or accommodate their opponents, rather than appeal to the authority of superiors to

The European Commission's Innobarometer survey

The European Commission's Innobarometer survey (Director General Enterprise and Industry 2010, p. 41) also asked about obstacles to innovation. Despite using a predetermined set of obstacles and a far larger sample, its results are similar to those of HKS Awards semifinalists.

Points were assigned to the obstacle results as follows: an obstacle was of high importance (3 points), of medium importance (2), of low importance (1), or of no importance (0). The following were the average values for the different obstacles for which reactions were solicited:

- Lack of sufficient human or financial resources (2.15)
- Regulatory requirements (1.78)
- Lack of incentives for staff (1.45)
- Lack of management support (1.4)
- Staff resistance (1.34)
- Risk-averse organizational culture (1.38)
- Uncertain acceptance by users of the services (1.35)

These categories and their distribution align fairly closely with the HKS Awards semifinalists' accounts. Internal obstacles for HKS Awards semifinalists are comparable to the European Commission innovators' lack of incentives, lack of managerial support, staff resistance, and risk-averse organizational culture. The HKS semifinalists' obstacle of existing laws and regulations is comparable to the regulatory requirements faced by European Commission innovators and HKS Awards semifinalists' difficulty reaching their target groups is comparable to the European Commission survey's uncertain acceptance by users.

remove them. These successful change agents overwhelmingly employed consensus-building rather than strong-arm tactics.

What the present data increasingly suggest is that the trajectory of an innovation might best be described as a careful progress through recursive steps of refining, responding, and reframing, with innovators deploying both adaptability and persuasion, so that, in fact, public sector innovation is almost always collaborative in nature, even within a single agency.

Did these tactics work? The percentage of obstacles successfully dealt with was substantial for both groups of semifinalists, and increased from 58 percent for the 1990 to 1994 semifinalists to 77 percent for the 2010 semifinalists. The most dramatic change was the increase in the frequency with which a shortage of resources was overcome, from only 19 percent for the 1990 to 1994 semifinalists to 58 percent for 2010.⁷ The growing incidence of multiple funding sources for innovation surely provides at least part of an explanation for this improvement. This in turn speaks to an increasing realism among innovators regarding the scarcity of government resources and the need to look elsewhere. We might link this increasing success rate, too, to an increasing comfort among funding sources with shared stewardship and the role of contributing partner. Consistent with the observation that "difficulty coordinating organizations" as an obstacle diminished between the 1990s and 2010, we may be seeing signs that the increasing incidence of, and experience with, interorganizational collaboration is creating a new culture within the public sector.

^{7.} Borins, *The Persistence of Innovation in Government* (2014), pp. 94–99, discusses the extent to which every obstacle was overcome and also shows which tactics were used most frequently to respond to any particular obstacle.

Recommendations for Creating a Climate for Innovation

Considering the landscape of public sector innovation in the past two decades, both its emerging landmarks and its unchanging contours, separate sets of recommendations are presented for innovative practitioners and for government executives who can influence an organization's climate for innovation. The section concludes with a discussion about how innovation awards programs, academics, and practitioners can build an effective three-sided partnership to enhance innovation.

Recommendations to Innovators

Recommendation One: Prepare to collaborate.

Interorganizational collaboration is likely to be part of any innovation in the years ahead. The 2010 HKS Awards semifinalists and innovators elsewhere have shown that creative problem solving in the public sector requires interorganizational collaboration far more often than not, both within the public sector and outside.⁸ The box *Questions to Ask about Collaborations* presents a list of items all innovators should consider prior to undertaking a collaborative project.

Recommendation Two: Use the building blocks.

In addition to interorganizational collaboration, consider the other building blocks for public sector innovation:

- Information technology
- Process improvement
- Citizen empowerment
- Use of volunteers
- Application of market incentives

While none is as significant a trend as interorganizational collaboration, each is used often enough to be part of a problem solver's toolbox. They are structural features of innovation design that have repeatedly produced significant results. One challenge lies in recognizing how they may be adapted to a specific problem. A second challenge lies in finding which of at least several hundred possible combinations of these building blocks is most appropriate for an innovator's needs. Creativity is needed to generate novel combinations of the building blocks, craft knowledge to determine which would be most effective.

^{8.} Readers interested in learning more about effective interorganizational collaboration should consult Ansell and Gash's (2008) metaanalysis of the case literature on collaboration between government and civil society, which also suggests success factors.

Questions to Ask about Collaborations

There are numerous questions to consider when undertaking such partnerships.

- What will be the "glue" to hold the collaboration together?
- Does the collaboration have a clear vision that all participating agencies or organizations can endorse?
- Are there senior executives (mayors, governors, agency heads, legislators, foundation executives) who are strongly supportive of the collaboration and committed to its survival? At the political level, can it win bipartisan support?
- Is an informal agreement sufficient, or is a formal written agreement necessary?
- What type of ongoing meetings, committees, or other organizational structures are needed to support the collaboration?
- Will the collaboration have neutral mediators for dispute resolution?
- Are the occupational cultures involved (for example, those of police and social workers) supportive of collaboration by frontline staff?
- Can incentives, both individual and organizational, be created that support collaboration?
- · Can the collaboration develop its own performance measures?
- How will the collaboration be funded? Are there possibilities for financial participation by several levels of government, as well as foundations and the private sector? While there are some highprofile foundations deeply involved in public policy (Gates, Johnson, Bloomberg), the competition for their funds is intense, so would-be innovators might have more success with lower-profile foundations whose scope is regional or local.⁹

Recommendation Three: Proactive beats reactive.

Public sector innovations are more frequently proactive responses to internal problems or new opportunities than reactions to externally visible crises. This is not an invitation to ignore crises, not an easy thing to do in any event. It is rather a reminder of the proven importance of being proactive. Real-time performance data available within government agencies facilitates proactive problem solving; if the data is also publicly available, the agency may also benefit from the community's collective intelligence.

Not only is it essential for public servants to look for solutions to problems before they become crises—they must actively seek out opportunities. These might be presented by new technology, new funding sources, an unexpected alignment or overlap with other public sector agencies, or a shift in public priorities or values. Any one of these might suggest and/or support innovations. The point is to keep looking and asking.

Recommendation Four: Start with a comprehensive plan, but be willing to change it. Two contrasting approaches to strategizing an innovation are comprehensive planning and adaptive incrementalism. The analysis here has found that planning is used far more often than incrementalism. In particular, planning tends to be associated with larger innovations and those involving considerable interorganizational collaboration, while adaptive incrementalism tends to be associated with those initiated by frontline staff and those involving information technology.¹⁰

^{9.} For example, Boston's Teacher Residency Program (one of the six 2010 HKS finalists), which enabled the Boston Public Schools to establish its own teacher training program, received its initial funding from Strategic Grant Partners, a Boston foundation established by 14 collaborating family foundations.

^{10.} This conclusion is based on a statistical analysis of the determinants of the 2010 HKS Awards semifinalists' choice of planning, incrementalism, or a mix of the two. See Borins, *The Persistence of Innovation in Government* (2014), pp. 79–83.

Would-be innovators would do well to start with a bias towards planning. This may be particularly important for securing external funding, and may also prove useful when evaluation of the initiative becomes an issue. But recognize, too, that circumstances might dictate adaptive incrementalism, or some combination of the two. In other words, in strategizing, as in so much else in the innovation process, flexibility is key.

Recommendation Five: Models matter.

Innovators should consider the relevant theoretical models in their policy area as they develop their innovation and determine whether they are appropriate for their use. Statistical analysis of the 2010 HKS Awards semifinalists indicates that those programs using a theoretical model were more likely to be transferred, to win awards, and to receive media attention.¹¹ Analysis of the determinants of selection to the ranks of the top 25 semifinalists and six finalists in the HKS Awards confirmed their importance (Borins 2014, pp. 133–137).

Models matter because they increase the clarity and comprehensibility of an innovation's profile, which appeals to agencies interested in transfer, to awards judging panels, and to the media. (If the theoretical model is contested, that may make the innovation controversial, which also makes it more newsworthy.)¹² And they have other strategic benefits. Theoretical models endow an initiative with intellectual credibility, a gravitas that can help it gain both partisans and sponsors. It is essential to be aware of the latest developments in the relevant policy area, to understand the theoretical models that are extant, and to be familiar with ongoing debates about their merits. The best choice for an innovator's initiative may not be among them, but the choice must be made (and justified) from a standpoint of knowledge.

Recommendation Six: Anticipate, anticipate, anticipate.

The research informing this report has uncovered a consistent set of obstacles to public sector innovation. These include, in order of the frequency with which they occur:

- Internal bureaucratic resistance
- External doubt and skepticism
- Difficulty finding resources

Forewarned is forearmed. No design can be perfect, and no concept can be immune to obstacles or objections, so it is essential to assume that an innovator will encounter at least some of these basic difficulties and should prepare accordingly. As much as innovators should be planning the theoretical basis, structure, oversight, and delivery of their innovation, they should also be conceiving a defensive implementation strategy for gathering support and neutralizing opposition.

Recommendation Seven: Be persistently flexible and flexibly persistent.

Just as this research project has revealed a consistent set of obstacles to innovation, it has shown a consistent set of effective responses to them. This encompasses persuasion, both at the bureaucratic and the political levels, and accommodation, through consultation, co-optation, training, or some other modification of the features of the innovation so that the concerns of the skeptics are addressed sufficiently to gain their participation. It also involves persistence, either in searching for funding or in maintaining a dialogue with skeptics. Often, the best

^{11.} This analysis developed indices of the extent of transfer, awards received, and media attention for the 2010 semifinalists and then regressed the three index scores separately on a number of outcome and process variables. The independent variable "operationalized a theoretical model" was positive and statistically significant for all three indices (Borins 2014, pp. 120–124).

^{12.} Education and training is a policy area especially characterized by contesting models, such as project-based individualized learning versus a rigorous core curriculum reinforced by standardized testing.

responses to specific obstacles include a mixture of all three of these approaches. A vision, even a theory, is not enough; buy-in is also necessary.

Recommendation Eight: Define indicators and measure progress.

Innovators should know the goals of their innovation. They should also know how they would measure progress toward their goals. Being able to do so accurately and consistently offers important benchmarks to those involved in delivering the initiative, to funding sources tracking its progress, to external reviewers who will examine its design and outcomes, and to outside observers looking to adopt, publicize, or judge it.

Given the diversity of the innovations in the six policy areas defined by the HKS Awards, there are many results that could be measured: the well-being of clients as reflected in satisfaction surveys, the extent to which the target population is using the innovation, improvements in existing services, cost reductions, and productivity increases. Each area tends to have its own pattern of measured results.

The HKS Awards semifinalists in both the early 1990s and 2010 displayed a wide variety of results measures, almost all of which, it should be noted, were formal and quantitative. Over and above these benefits, there is an intrinsic value to measuring outcomes, namely, ensuring that public resources are being used effectively and efficiently. The trend toward transparency for public sector organizations, evidenced through the online posting of performance indicators, applies to innovations as well.

The public expects to know whether innovations, particularly high-profile ones, are improving public sector performance. Performance assessment is at the heart of New York City's Center for Economic Opportunity, the winner of the 2010 HKS Awards, which requires evaluation of the programs it supports, often using randomized trials, to determine if they are effective, scaling up those that pass the test and terminating those that don't.

Recommendation Nine: Find outside eyes to review the innovation program.

Once an innovation is in operation, and has internal performance measures in place, innovators should ensure that their innovation initiative has a formal external review. An increasing proportion of HKS Awards semifinalists have been reviewed by consultants, nonprofits, foundations, governmental budget offices or inspectors-general, academic researchers, accreditation boards, or financial auditors.

Initiatives that are reviewed are more likely to be transferred to other organizations, to win awards, and to receive media attention than those that have not been reviewed.¹³ Consider, too, the increased credibility conferred by such a review, and the opportunity it provides to raise an innovation's profile, even to secure for it highly effective external advocates.

Recommendation Ten: Be aware that the media are watching.

Recognize that the media, whether local, regional, professional, trade, or even national, are paying increasing attention to public sector innovation. At the national level, there is evidence that media sources commonly considered liberal tend to be more likely to report on an innovation than those commonly considered conservative.

^{13.} The regression analysis of the determinants of indices of transfer, awards received, and media attention for the 2010 semifinalists found that the independent variable "no formal evaluation" was negative and statistically significant for all three indices, indicating that an absence of formal evaluation diminished an innovation's achievements in terms of all three of these indicators of success (Borins 2014, pp. 120–124).

Attention to the media can build support for the innovation, as well as increase the likelihood of transfer. Innovators should look for the dramatic and inspiring human stories embedded within their program's history, whether among clients or implementers, as a means of attracting media interest. Such stories can also be featured on agency websites and in future awards applications. The media are likely to research such stories to check their validity, just as they check quantitative performance measures. Do not assume, therefore, that the media will be uncritically supportive.

Recommendation Eleven: Respond to critics.

Even after an innovation has been successfully implemented, it is likely to have ongoing critics. The most frequent are those who oppose its philosophy, as distinct from those who oppose it because it harms their interests (Borins, 2014, pp. 99–103). The best responses to criticism parallel the best responses to obstacles in the course of implementation. Innovators should respond to philosophical opposition with the tools of persuasion, namely arguments for the virtues of an initiative and demonstrations that it is delivering widespread benefits.

Quantitative outcome measures and external reviews can be useful ammunition here. So, too, can individual case histories of clients. Where possible, innovators should respond to arguments that an innovation harms certain groups' interests with accommodation. Failing that, innovators should offer the counter-argument that the interests of those the innovation benefits are broader and/or more pressing than the interests of those it harms, supported with quantitative evidence.

Recommendations to Government Executives

Recommendation One: Support local heroes.

Approximately half of the HKS Awards semifinalist programs, both in the early 1990s and in 2010, were initiated by middle managers or frontline public servants. This should encourage a middle manager or frontline public servant to put his ideas forward. It should also convince politically appointed agency heads and senior executives in government organizations to empower these local heroes and create a supportive organizational culture. Senior executives could do this by freeing up some of the innovator's time, providing a modicum of financial resources, and listening with an open mind to her proposals. If the innovation is implemented and is successful, recognition is due.¹⁴

Recommendation Two: Protect public servants associated with unsuccessful innovations.

A willingness to innovate entails an awareness that some innovations will fail. Individual public servants will have managed the failed innovations. An innovative culture will accept failure with equanimity, terminate programs that do not work, and learn from them. An innovative culture will not tolerate internal blaming and shaming, where public servants who have been associated with failures are stigmatized or fired. There should never be any question that they will carry on with their careers, moving on to other projects, positions, and responsibilities.

^{14.} Twenty-five percent of the 2010 HKS Award semifinalists reported receiving some sort of award from their own government (Borins 2014, Table 6-5, p. 117).

Recommendation Three: Support communities of practice and other initiatives to promote interorganizational dialogue at the front lines of government organization.

Given that so much public sector innovation involves interorganizational collaboration, middle managers and frontline staff should look beyond their organizations' boundaries. Conversations with counterparts in other public sector organizations might spark an innovation. Finding opportunities for such dialogue increases the likelihood that a spark will be struck. The establishment within governments of communities of practice, often supported by wikis, is one way of facilitating contact across agency boundaries.

Recommendation Four: Support performance management systems because they encourage innovative problem solving.

Two decades of research on public sector innovation have shown the prevalence of problem solving, rather than crisis response, as a motivator. Performance management systems, especially if they produce real-time results, provide essential information on evolving problems. Awareness of these problems stimulates innovation. In addition, having an organization-wide performance management system encourages, if not obligates, innovators to establish metrics to track how well their innovation is working. This research has also shown that innovations whose performance is measured, both internally and by external evaluators, are more likely to produce achievements that receive external recognition.

Conclusion: Innovation Awards and the Three-Sided Partnership

In addition to their objective of rewarding and stimulating public sector innovation, designers of innovation awards have envisaged a three-sided partnership with academics and practitioners, using applications to their awards to stimulate research. There is potential for a virtuous circle here: the more academics learn from practitioners about their innovation experiences, the more valuable their findings can be to practitioners, the more prepared practitioners will be when they initiate innovations, and the more successful their innovations are likely to be.

This partnership began with researchers producing case studies based on one or possibly a few award-winning applications. Case studies offer specificity and fine-grained detail. Specificity, however, does not guarantee widespread applicability. Academics see these case studies instrumentally as providing hypotheses to be tested against larger samples. Practitioners may see in these cases correspondences relevant to the challenges presented by their own context; on the other hand, they may conclude that the cases are too specific to other contexts to be relevant to their own.

In recent years, research based on innovation awards has taken a quantitative turn, involving the creation and analysis of large databases using their applications. The intent of this stream of research (of which this report is an example) has been to derive generalizations about public sector innovation. Concurrently, other streams of research on public sector innovation, such as studies of entrepreneurial public servants or innovative public sector organizations, have taken a similar quantitative turn from case studies to the creation and analysis of databases.

How can this three-sided partnership be made even more productive? There are a number of possibilities. Rather than wait for academics to approach them to make their applications available for coding and analysis, as is now the case, innovation awards programs could code the basic information in their applications on an ongoing basis, thereby building up longitudinal datasets for academic analysis. At a minimum, this would facilitate the analysis of innovation trends of the sort presented in the second finding of this report, which discussed the evolution of the innovation agenda in the various policy areas. A second approach would be to use the applications to identify individuals who, over time, have been involved with several initiatives ("serial innovators"). A third approach would be to use the applications to identify jurisdictions that have been the source of numerous innovations over time ("hotbeds of innovation") and, in contrast, identify comparable jurisdictions that have been notably absent as sources of innovations.

Realizing this partnership will require the following:

- An additional commitment of resources by the awards programs to support in-house data creation and academic research
- A commitment of interest on the part of the academics, particularly by those who would use innovation awards applications as a database for studying the determinants and nature of public sector entrepreneurship and innovative public sector organizations

• A commitment of access and cooperation on the part of these practitioners, identified in innovation awards applications, whom the academics want to study in more depth.

It is my hope that this report stands as a convincing argument for the sort of productive, threesided engagement that seems the best hope for the future of public sector innovation. The research has been enabled by the HKS Awards Program, both in terms of data and generous financial support. In turn, practicable findings from that research can support practitioners in their future innovative efforts, leading to future award applications and more essential data for researchers.

Innovators in the public sector persist. Innovation awards programs persist. And academics studying public sector innovation persist. By recognizing the potential for a closer collaboration, all three can work together to enhance both the practice of innovation in government and research about it. The ultimate benefit is improved public policies and services for all citizens. And we are all citizens after all.

Appendix I: Methodology

This report is a companion to the book-length study, *The Persistence of Innovation in Government*, published by Brookings. By the simple fact of length, the book format offered an easier solution to the "data dilemma."

My innovation research for the past two decades has been informed by a desire to bring rigorous quantitative methodology to a field that often still favors the small-scale, qualitative analysis of the case study. My findings, and my analysis of their implications, are rooted in sustained statistical analysis. They gain important meaning, for practitioners no less than academics, when they are not divorced from the data that substantiates them. The dilemma is how to present that data without overwhelming the non-specialist reader with technical terminology, methodological issues, and simply too many numbers. My solution here is to balance numerical detail with summary analysis and I have tried always to provide translations of technical language where I think they are needed. Readers interested in engaging more fully with the underlying issues of methodology and comparative data analysis are encouraged to turn to *The Persistence of Innovation in Government*.

What makes this particular database so valuable as raw material for a study of innovation in American government? The HKS Awards, established 27 years ago and endowed by both the Ford and Ash Foundations, are prestigious, highly visible, and well-publicized, drawing 500 applications each year from public sector organizations that represent the full spectrum of government activity at all levels of government. Their applicant questionnaires are comprehensive, and have stayed constant over time, facilitating in-depth research on current innovations as well as longitudinal comparisons. The Ash Center for Democratic Governance and Innovation, which manages the awards process, has consistently been supportive of research using its application materials as a database.

The HKS Awards have two levels of written questionnaires, a short one for initial applicants (500 of them in 2010) and a much longer one for semifinalists (127 that year). The initial applicant questionnaire asks for a summary of the innovation, a short history of its evolution, and evidence about how it meets the HKS Award's four selection criteria:

- Novelty
- Effectiveness
- Significance
- Transferability

The semifinalist questionnaire asks for a more comprehensive discussion that includes the following:

- Nature of the innovation and how it relates to previous practice
- A detailed recounting of its history, including how it was initiated and its evolution

- Obstacles that had to be overcome
- Its outcome measures
- Its operating budget
- Where it has been transferred
- Awards and media coverage it has received

The coding for this study was performed twice: once independently by a research assistant and once by the author, with a high level (90 percent) of intercoder agreement. We first coded a sample of 234 initial applicants, approximately one-third of those not selected as finalists, and two-thirds of those selected. While coding, we deliberately did not establish which of the applications had been selected as semifinalists. We then coded the detailed second-level questionnaires completed by all 127 semifinalists. The questions in both questionnaires discussed in this report are included in Appendix II.

The report includes 12 tables that compare the responses to questions for the 2010 and 1990 to 1994 HKS Awards semifinalists, which I had studied in my earlier book *Innovating with Integrity* (Borins 1998). While it is possible to eyeball two distributions for similarities and differences, I used a more precise statistical procedure. I performed a simple regression of the distribution of responses to a given question for the 2010 semifinalists on the corresponding distribution for the 1990 to 1994 semifinalists. If the two distributions were graphed and if each observation were identical (say, 30 percent of both groups of applicants used information technology), the relationship would be represented by a straight line on a 45 degree angle through the origin. Running a simple linear regression estimates that relationship statistically in the form y = a + bx, where y is the 2010 semifinalists and x the 1990 to 1994 semifinalists. If the distributions are identical a (the intercept term) would be 0 and b (the slope) would be 1. A simple regression was thus used as a test for similarity between any two distributions, with complete similarity occurring if the estimated intercept is 0 and slope is 1 and the statistical goodness-of-fit measure is very strong. We will be looking for how close any two distributions come to, or how far they deviate from, this ideal.

One concern sometimes expressed about studies using innovations that have been recognized as being among the best by a judging panel is that they may not be representative of all the innovative activity that is underway in government at any given time. I addressed this concern in two ways. I used the *initial* applicants to the 2010 HKS Awards to compare the characteristics of those that were selected as semifinalists with those that were not. They were almost identical, which means that the judges selected semifinalists on the basis of the extent to which they met the criteria, rather than on the basis of the presence or absence of particular characteristics.

I also made comparisons to the European Commission's comprehensive 2010 Innobarometer survey of innovative activity in some 4000 government agencies in 27 European Union countries. (Director General Enterprise and Industry, European Commission 2010).¹⁵ Fortuitously, the survey asked many similar questions to those in the HKS Awards applications, thus enabling comparisons between the 2010 HKS semifinalists and a much wider range of public sector innovators. That they are based in agencies outside the United States enhances the scope of comparisons that may be drawn.

^{15.} The European Commission has been surveying private sector innovation in its member countries since 2005, but its first survey dealing with the public sector was in 2010. All of these survey reports can be found in their entirety under the "Innobarometer" rubric at http://ec.europa.eu/enterprise/policies/innovation/policy/innobarometer/.

Appendix II: HKS Award Application Questions

Table(s) in the report based on each question are indicated in brackets.

Initial Application Question

Please provide a two-sentence summary of the innovation. This description should accurately and succinctly convey the essence of the innovation. *[Table 1]*

Semifinalist Application Questions

1. Describe your innovation. What problem does it address? When and how was the program or policy initiative originally conceived in your jurisdiction? How exactly is your program or policy innovative? How has your innovation changed previous practice? [Tables 2, 8]

2. How was the program or initiative embodying your innovative idea designed and launched? What individuals or groups are considered the primary initiators of your program? [Table 8]

3. How has the implementation strategy of your program or policy initiative evolved over time? Please outline the chronology of your innovation and identify the key milestones in program or policy development and implementation and when they occurred. *[Tables 8, 9, 10]*

4. Please describe the most significant obstacle(s) encountered thus far by your program. How have they been dealt with? Which ones remain? [Tables 11, 12]

5. Please describe the target population served by your program or policy initiative. How many clients does your program or policy initiative currently serve? What percentage of the potential clientele does this represent? *[Table 4]*

6. If your program or policy initiative has been formally evaluated or audited by an independent organization or group, please provide the name, address, and telephone number of a contact person from whom the materials are available. Please summarize the principal findings of the independent evaluator(s) and/or auditor(s). [Table 6]

7. To what extent do you believe your program or policy initiative is potentially replicable within other jurisdictions and why? To your knowledge, have any other jurisdictions or organizations established programs or implemented policies modeled specifically on your own? *[Table 7]*

8. What is the program's current operating budget? What are the program's funding sources (e.g., local, state, federal, private)? What percentage of annual income is derived from each? [Tables 3, 4]

9. Has the program received any press or other media coverage to date? If yes, please list the sources and briefly describe relevant coverage. [Table 5]

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He is the author of 10 books and numerous articles. The books include *The Persistence of Innovation in Government* (Brookings Press, 2014) *Governing Fables: Learning from Public Sector Narratives* (Information Age Publishing, 2011), *Innovations in Government: Research, Recognition, and Replication* (Brookings, 2008), *Innovating with Integrity: How Local Heroes are Transforming American Government,* (Georgetown University Press, 1998), and *Political Management in Canada,* coauthored with Hon. Allan Blakeney, former premier of Saskatchewan (University of Toronto Press, 1998).

Professor Borins has had a wide range of professional experience. He is a frequent speaker on public sector innovation, with recent presentations to the Australian Department of Industry and Innovation, Australian National University, Organization for Economic Cooperation and Development (Paris), Roskilde University (Denmark), and Public Management Research Conference (United States). He was a member of the board of directors of the Ontario Transportation Capital Corporation, responsible for developing Ontario's electronic toll road (Highway 407). He was the President of the Canadian Association of Programs in Public Administration, the counterpart to NASPAA, from 2003 to 2007.

He did his undergraduate studies at Harvard, where he graduated magna cum laude, was elected to Phi Beta Kappa, and received a Woodrow Wilson Fellowship. He then took a master's degree in Public Policy at the Harvard Kennedy School, and received his Ph.D. in Economics at Harvard.



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