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Bridging the Research-Policy Divide: Pathways to Engagement and Skill Development

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Abstract

The persistent gap between research and policymaking is a multifaceted challenge borne in part out of limited interaction between researchers and policymakers. Yet, interaction without adequate preparation for policy engagement (i.e., training and supports) may thwart researchers' efforts to support policymakers' use of empirical evidence. Although varied policy training approaches for researchers exist, little empirical work has explored their effectiveness. This article seeks to advance this area by reviewing how policy training strategies can overcome some of the barriers to creating evidence-based policy. We also offer insights on policy competency development based on the authors' experiences with policy work and preliminary evaluation data comparing two training approaches. This work illustrates how a) direct instruction can support researchers' initial policy competency development, and b) subsequent experiential learning (i.e., hands-on application) can further competency development and initiate productive relationships with policymakers. Despite advances in training, barriers to researchers' engagement in policy work remain. We conclude by recommending systemic and institutional changes to enhance researchers' policy training and policy influence, including policy-oriented coursework, institutional systems that reward policy engagement, funding for research translation, and brokerage mechanisms that connect researchers with current policy opportunities.

Keywords

Government Policy Making; Policy Making; Evidence-based Policy; Policy Engagement; Training and Professional Development; Research Institutions

Researchers generally engage in few interactions with policymakers, which limits the extent to which empirical evidence is used to guide public policy, and consequently, the potential effectiveness of public policies in improving societal wellbeing. Although many researchers wish to see their work used for social impact, several factors contribute to researchers' limited policy engagement, including a lack of opportunities for developing policy competencies (i.e., knowledge, skills, and self-efficacy that support effective policy engagement) and limited support or incentives from research, training, and philanthropic

institutions. Moreover, despite work that shows that researchers are more likely to engage in policy when they report greater policy competencies, little descriptive or evaluative research has explored the effectiveness of policy training.

The current work seeks to expand the limited empirical base by drawing connections between training approaches and conditions that support policymakers' use of research evidence. Policy training approaches that combine direct instruction (i.e., information-based, often didactic teaching via classes) and experiential learning (i.e., skills and knowledge obtained through active engagement, hands-on application) appear most promising. Various pathways for policy training are described, and one specific policy training and engagement strategy is further described alongside evaluation data regarding benefits associated with direct instruction and experiential learning approaches. We conclude with recommendations to strengthen researchers' policy competency development and engagement. These recommendations range from increasing access to training opportunities to adjusting institutional incentive systems that currently hinder researchers' policy engagement.

Supporting Policymakers' Use of Research Evidence

Recognition of the limited use of empirical evidence in policy has paved the way toward a bipartisan "evidence-based policy" movement. However, researchers rarely engage in policymaking processes despite having critical insights valuable to policymakers, many of which are obtained through government-funded research and programs. This lack of contact and interaction between researchers and policymakers (and their staff) is a salient barrier to research utilization because policymakers tend to rely on trusted advisors for information due to time constraints and information overload. The perceived credibility of advisors guides policymakers' inquiry about, acquisition of, and use of information. Moreover, making sense of research is an iterative process that involves discussion, shared understanding, and focused reflection on how knowledge is relevant for specific situations. Researchers need to establish and maintain consultative relationships with policymakers; however, interpersonal and normative differences present challenges in forming enduring working relationships.

Policymakers and researchers comprise relatively disparate communities, each of which is characterized by unique norms, values, reward systems, and languages. For instance, decision-making processes differ substantially between these groups. Policymakers tend to engage in prompt policy actions in response to opportunities or crises. They obtain information from advisors and incorporate values, emotions, and indications of public support into decision-making. In contrast, researchers rely primarily on empirical evidence and engage in relatively slower, more systematic decision-making. Such differences in professional cultures can contribute to difficulties forging consultative relationships, as members of each group may distrust and dismiss information conveyed by "outsiders". Additionally, limited policy knowledge and preparation among researchers can make them vulnerable to common pitfalls in communicating with policymakers. For example, policymakers generally desire definitive answers, but researchers often convey nuances and (very real) complexities by describing specific studies, caveats in a study's findings, and the need for more research. In this way, researchers' communication styles have the potential

to reinforce negative stereotypes of research as irrelevant and self-serving (i.e., justifying a need for more research and related funding). Training can help researchers cultivate their ability to describe existing bodies of research, the implications of such research, and corresponding policy recommendations (e.g., legal language that can be inserted into a bill). By improving interpersonal dynamics, including effective communication, researchers can strengthen their connections with policymakers.

Another factor contributing to policymakers' use of research is the relevance of translated research to current policy opportunities. Consultative relationships focused on research evidence are more influential when the research findings align with current policy priorities. Thus, researchers must leverage narrow windows of opportunity for policy change, which rapidly evolve based on socio-political factors, including public opinion, media coverage, and national crises. By seizing current policy opportunities, researchers can facilitate policymakers' use of research and reinforce their relevance to policymaking in a way that engenders trust and ongoing consultation. Thus, there is a need for ongoing identification of current policy opportunities and strategically engaging scientists to translate relevant research in "real" time.

Collaboration based on mutual respect and shared goals related to current policy priorities is particularly promising for supporting policymakers' use of evidence. Processes in which both parties' expertise is valued may foster trust, respect, and latitude to share diverse ideas. Such conditions allow collaborators to learn from one another and consider a broader array of policy options, which can potentially lead to innovative solutions. In addition to strengthening interpersonal connections, ongoing interactions around shared goals enable researchers to be responsive to dynamic policy opportunities. However, some researchers may benefit from supports that prepare them for policy engagement and match them appropriately with policy opportunities in their area of expertise.

In sum, connecting researchers to current policy opportunities and priorities in ways that support relationship development aligns with known facilitators of policymakers' use of research evidence. However, such connections must be made tactfully, and enhancing researchers' policy competencies can strengthen the success of their policy outreach.

Strengthening Researchers' Capacity for Policy Engagement

To improve connections between researchers and policymakers, we suggest that researchers develop technical (e.g., understanding the policy-making process) and interpersonal (e.g., rapport-building) competencies. These can be developed through a combination of direct instruction and experiential learning. Direct instruction may be best suited to prepare researchers for initial policy experiences, and can be provided through seminars, conference workshops, and/or coursework. Such programs may include instruction regarding policymaking processes, and how to conduct policy-relevant research and analyse policy, along with basic skill development in communication and relationship-building with policymakers. In particular, training that conveys how policymakers use research and their decision-making realities (e.g., voters' attitudes and ideologies) may help researchers adapt to normative differences and engender empathic and pragmatic responses to political

situations. Experiential learning supports further policy competency development by scaffolding and guiding researchers' interactions with policymakers and staff. Ideally, researchers new to policy work should receive coaching (i.e., observations, feedback, and modeling) by another researcher experienced in policy work. Indeed, in keeping with pedagogical literature, coaching researchers as they implement new policy skills may amplify the impact of instruction and facilitate empathic responses essential to developing trusting relationships with policymakers.

Although little work has compared experiential and instructional training approaches in the policy context, one study by social work professor Cynthia Rocha found that graduate training involving experiential learning supported policy competency development and subsequent policy engagement more than instruction alone. Therefore, it is likely that opportunities to apply lessons (i.e., experiential learning) offer unique merit. Because instruction and experience are complementary, a variety of training opportunities may be necessary for researchers to develop and refine policy competencies.

Policy Training Pathways

Researchers who have successfully exerted influence across a wide range of policy content areas indicate that policy competencies can be developed via a variety of training opportunities in diverse settings that afford direct instruction and/or experiential learning. Such diverse policy training and engagement pathways may include some combination of: a) graduate coursework focused on understanding the policy arena and/or how researchers exert policy influence; b) apprenticeship opportunities with faculty mentors engaged in policy work (e.g., Shaw et al., this issue); c) policy training programs in university-based policy centers; d) in-person or web-based training modules; e) ongoing, collaborative involvement with advocacy organizations and professional associations that engage in advocacy work; or f) intensive fellowships or practica.

These experiences may build on one another. For instance, direct instruction through workshops or coursework can provide a strong foundation, and specifically, a graduate course may allow for the development of nascent skills within the 'safety' of an internal training program. Then more intensive, external practica can allow for skill application and refinement. Initial training experiences may also beget further opportunities for training and policy engagement, such as facilitating connections with potential mentors for an apprenticeship. Furthermore, a collection of policy training experiences may shape one's professional identity over time in ways that strengthen their focus around policy-oriented research.

Training opportunities range in intensity, with more intensive trainings involving experiential learning in enduring positions embedded within a researcher's primary setting (i.e., part of a researcher's daily, ongoing work). As such, certain opportunities may be more or less accessible, depending on one's time commitments and career stage. For example, policy-oriented coursework may be more accessible for graduate students, while tenured faculty may have more flexibility for voluntary time commitments that policy work often requires. Therefore, a continuum of training opportunities that ranges in intensity allows the

needs of individual researchers to be met. Table 1 provides additional information about various training opportunities and specific examples of each.

In addition to pragmatic considerations for enlisting in certain training opportunities, researchers should consider the particular skills and knowledge they wish to develop when seeking training opportunities, and bear in mind that relevant opportunities may exist outside of their field or professional organization. Through interviews with 79 psychologists who successfully influenced social policy, psychology professor Kenneth Maton found that paths toward policy competency development vary substantially depending on researchers' needs, preferences, and career trajectories. Researchers interested in developing a nonpartisan reputation with legislators need to consider external training options carefully, as becoming involved with an organization seen as less credible, more partisan, or combative may work against this goal. Finally, engaging in policy training may necessitate grappling with one's professional identity and values; therefore, engaging multiple mentors throughout policy competency development may be beneficial. While policy engagement can facilitate professional growth, it also requires forethought, preparation, and persistence.

In sum, a combination of training opportunities – both instructional and experiential – may be most effective for developing policy competencies. Despite this, few training and engagement opportunities integrate a combination of direct and experiential learning. Even fewer opportunities facilitate experiential learning by brokering collaborative relationships between policymakers and researchers. Although research institutions are well-positioned to facilitate such collaborations, many do not support researchers' policy engagement. Therefore, there is a need for external organizations to offer moderately intensive policy training and engagement opportunities.

The Research-to-Policy Collaboration

The Research-to-Policy Collaboration (RPC) is a comprehensive approach to supporting researchers' policy training and engagement outside traditional research institutions. This replicable model involves supporting the use of research in policy (rather than advocating for specific policy actions) and is comprised of seven iterative and nonlinear steps delivered in two phases (see Figure 1). The RPC is intended to be implemented by research institutions or professional associations with the support of an RPC Coordinator responsible for identifying policy opportunities and facilitating researchers' training and engagement.

In the first step of the RPC, Policy Priority Identification, the RPC Coordinator identifies a broad issue area of focus by meeting with legislative staff to understand current policy priorities and ways researchers might offer support. In 2016, a pilot of the RPC focused on crime prevention because there were several policy opportunities in that area that matched the research expertise of participating researchers. The RPC Coordinator met with staff of legislators who were sponsoring relevant legislation (e.g., Youth Promise Act) or were members of relevant Committees (e.g., Judiciary) or Caucuses (e.g., Crime Prevention and Youth Development) to ask about congressional efforts and ways that researchers could support those efforts. The RPC Coordinator received requests for research evidence to answer questions such as, "What aspects of drug courts are effective?"

The second step of the RPC, Research Network Development, involves recruiting researchers with expertise related to the identified Policy Priorities (e.g., effective aspects of drug courts) to a Network that can respond rapidly to policymakers' requests for research. Once researchers join the Network, a discussion forum supports experiential learning via rapid responses that solicit input on current policy efforts and legislative staff's requests for research evidence. At this stage, researchers indirectly support policymakers by providing the RPC Coordinator with relevant reports and articles, recommendations for subject-matter experts, and brief research summaries. The RPC Coordinator mediates responses to legislative requests by culling resources and responding directly to legislative staff. Additionally, the RPC Coordinator coaches researchers by modeling positive interactions with legislative staff, monitoring follow-up activities, and offering constructive feedback. For example, in the pilot, the RPC Coordinator identified instances when researchers could simplify their description of research evidence, demonstrate credibility via reliable, unbiased research citations, and avoid narrow recommendations (e.g., policymakers *should* expand Medicaid). Such capacity building exercises reflect convergence with the next step, Training & Coaching, which is illustrative of the iterative and nonlinear nature of the RPC steps.

In addition to actively supporting researchers' responses to legislative staff, the third step of the capacity-building phase, Training & Coaching, involves a six-week series of one-hour, instructional webinars designed to prepare researchers for interacting and collaborating with policymakers. Web-based training aims to cultivate "knowledge brokerage" skills, which involve understanding the policymaking process, adapting to diverse political ideologies, and working with policymakers to draw implications from research findings. Strategies to convey nonpartisanship and unbiased credibility are emphasized throughout training, such as researchers considering an array of policy levers rather than advocating for one specific policy change. The difference between lobbying and advocacy is explained to describe how scientists can play a relatively neutral role as an "honest broker" who conveys how research may inform a range of policy decisions. Furthermore, training conveys how policymakers use research and the realities of their decision-making context (e.g., voters and ideology) so that researchers can empathize with policymakers' challenges, communicate more effectively, and prepare to collaborate in the context of legislators' values and beliefs. This instructional content is delivered in four one-hour sessions, followed by a live practice session of knowledge brokerage skills. The final session prepares researchers for developing a collaborative, strategic plan upon meeting legislative staff. The trainings in the pilot were interactive and adaptive to current policy efforts and insights gleaned from congressional staff. This allowed participants to understand policy decision processes occurring "behind the scenes" and practice discussing relevant research. For instance, trainings described a Senate process whereby bills are passed by unanimous consent rather than a formal vote, in relation to the reauthorization of the Juvenile Justice and Delinquency Prevention Act. While many Senators wanted to include a provision to prohibit the incarceration of minors for low-risk status offenses (i.e., crimes unique to being under the age of 18, such as truancy), one Senator's objection to that provision was delaying the bill's enactment.

The fourth and final step in the capacity-building phase is a Legislative Needs Assessment, in which the RPC Coordinator meets with legislative staff to revisit previously discussed priorities, identify short-term needs, and determine how researchers can provide support.

Legislative staff participating in the pilot largely reported needs consistent with prior conversations; however, the requests became more specific regarding short-term legislative activities. This included reviewing impending legislation on prison and sentencing reform and organizing a congressional briefing related to the Comprehensive Addiction Recovery Act. Some other legislative staff had less specific needs, but sought to consult with research experts on issues that were broadly relevant to their work, such as how neurological development in adolescence affects decision-making and risk-taking. The latter needs are consistent with *conceptual use* of research evidence, which affects how problems are understood, potentially influencing a broad array of decisions. In contrast, *instrumental uses* directly inform specific decisions and may be relatively circumscribed to a narrower range of policy efforts. In sum, the Needs Assessment elicited a range of requests to which researchers could respond during face-to-face consultative or collaborative meetings.

The second phase initiates collaboration in the fifth step, the Rapid Response Event, which brings researchers and legislative staff together to discuss the legislators' needs for research evidence and develop a plan for working together. Rapid Response Event meetings are facilitated by the RPC Coordinator or another staff member of the implementing organization. Researchers and the legislative staff discuss the legislators' needs for research, and a note taker documents action steps. In the pilot, researchers stated that the training prepared them to adapt to unexpected scenarios and anticipate diverse political ideologies. For example, researchers who had prepared to discuss approaches for improving the "accountability" of judicial block grants pivoted quickly when the staff asked about youth involved in both child welfare and juvenile justice (i.e., "crossover"). This research team's flexibility and breadth of content expertise enabled knowledgeable and nimble responses to these questions, and this discussion led to a subsequent request for a review of approaches used to identify and support "crossover" youth.

The sixth step, Initial Strategic Planning, commences immediately after the Rapid Response Event to determine immediate action steps, assign persons to tasks, and develop a timeline for ongoing collaboration and follow-up. Responses to legislative requests may involve synthesizing research, writing policy briefs, coordinating congressional briefings, testifying in hearings, or reviewing legislative language in bills or enacted statutes. During the RPC pilot, legislative requests included support with (1) planning a congressional briefing about research related to the opioid epidemic, (2) writing a policy brief about alternatives to incarcerating low-risk juvenile offenders, and (3) reviewing legislation on prison reform and recidivism prevention. Strategic Planning allowed the most pressing requests to be triaged and to determine which researcher(s) would lead each response. The majority of the tasks were assigned to research participants so that the RPC Coordinator could focus on prompting staff for their follow-up (e.g., sending drafted legislative language), organizing contributions (e.g., producing a policy brief on juvenile justice based on excerpts researchers provided), and coaching researchers in their responses (e.g., monitoring, offering feedback).

In the final step, Ongoing Collaboration, researchers continue to receive coaching and support from the RPC Coordinator, but they also operate with increasing independence as they grow their policy competencies. For instance, during the pilot, two researchers who worked with legislative staff to plan a briefing about opioid prevention began to

correspond directly with staff (via email and phone meetings) and solicited the Research Network for input on the briefing agenda, talking points, and speakers. The briefing was organized quickly, was held shortly after the Comprehensive Addiction Recovery Act passed both chambers and was in Conference (i.e., negotiating uniform legislative language across chambers), and was well-attended by many legislative staff as a result of its timeliness and relevance.

Exploring the Added Value of Experiential Learning Compared to Training-Only

Although both instructional and experiential approaches are used in the full RPC implementation, the instructional component of the RPC (i.e., webinars) can also be provided as a stand-alone workshop. We sought to explore the added value of researchers' experiential learning by comparing reported policy competency improvements among researchers who participated in a stand-alone workshop to those who participated in a pilot of the full RPC. A description of measures, methods, and the complete results are provided in Supplemental Materials.

All study participants reported improvements in understanding the policy process. In contrast, only the RPC participants reported gains in policy-related self-efficacy and fewer needs for training. Subsequently, individual items were analyzed to provide detail on which types of policy competencies reportedly shifted for each group. Item-level analyses suggested that experiential learning within the RPC may be particularly useful for supporting interpersonal skills, such as navigating cultural differences, avoiding or mitigating conflict, and dealing with "unexpected issues" in interactions with policymakers' staff.

Workshop participants reported a few improvements in understanding policy processes that RPC participants did not, such as understanding "objective and nonpartisan" communication approaches and "the definition of and restrictions on lobbying." The minimal reported improvements in certain types of knowledge among RPC participants may be a reflection of low attendance during some of the webinars, and suggests that certain types of knowledge may be best supported with direct instruction. Nonetheless, findings are consistent with the notion that instruction and experience both support policy competencies, albeit in different ways.

These exploratory findings align with the notion that the best practice for policy competency development likely involves blending instructional and experiential learning over a sustained duration and engaging multiple learning modalities. Instructional training can be beneficial for cultivating an initial skillset, and subsequent experiential learning through policy engagement allows for applying and refining policy skills. Together, they can support development of skills essential for establishing and maintaining partnerships with policymakers and their staff.

Improving Researchers' Policy Engagement Requires Systemic, Institutional Change

While innovative training models such as the RPC can enhance researcher-policymaker collaboration, the most substantial impediments to researchers' policy engagement and experiential learning are systemic and institutional in nature. These barriers pose challenges for researchers at all career stages, including incentive systems that limit the amount of time committed to translating research outside the academic community, few norms that guide policy-relevant research activities, and the lack of policy training in most graduate research programs. Strategic and complex systemic changes may be needed to support researchers' policy competency development. Specifically, we recommend:

1. *Research institutions should recognize and reinforce scholars' public impact.* Applied, experiential learning in policy contexts is time-intensive, and time commitment presents a substantial barrier to researchers' policy engagement because time spent in external activities limits traditional scholarly work. For instance, full-time researchers who become engaged in policy work and develop policy competencies often do so apart from their 'day job' of teaching and research. In fact, studies show that the tenure process particularly limits policy engagement among early-career scientists. Additionally, policy engagement may be explicitly discouraged because the research community is generally reinforced for within-group activities (e.g., peer-reviewed publications) more than externally-reaching research applications. For instance, public outreach activities that make research more accessible and relevant to the public and lawmakers are rarely rewarded through tenure and promotion criteria. Promotional criteria should recognize policy contributions and public outreach. Additionally, award systems may encourage normative shifts, as recognition from colleagues can be a salient motivator in academic settings. Furthermore, such awards could also be referenced for promotion decisions.
2. *Policy-relevant research should be prioritized.* In addition to reinforcing research translation and public outreach activities, a shift in the way research is conducted could strengthen connections between researchers and policymakers. Policy engagement should involve bidirectional information exchange. Interactions with policymakers may shift researchers' perspective to generate knowledge directly relevant to the current policy context. The authors' experiences also suggest that when policy engagement is supported by research institutions, policy-relevant research is more likely. Conducting policy-relevant research may have multiple benefits, including increased utilization by policymakers, integration of knowledge production and translation roles, and graduate mentorship that strengthens policy competency development (e.g., Shaw et al., this issue). However, research institutions must be aware that successful researcher-policymaker partnerships require significant time and resources; therefore, the recognized value of this type of research must be weighted accordingly.

3. *Training institutions should offer graduate research students more opportunities for policy coursework and practica.* Graduate programs represent an opportune time and context for students to develop policy competences, as students participate in multiple formative opportunities in a developmental fashion. Additionally, time constraints remain salient for students, as graduate students who seek policy training in their research programs must often do so by constraining the time and energy they give to other training pursuits (e.g., clinical practica, research). However, few graduate programs integrate policy training or practica, likely due to current educational priorities. Research-oriented graduate programs may draw upon lessons learned from practice-oriented graduate programs (e.g., Master's of Social Work), which have made significant strides in policy competency training and underscore the importance of both instructional and experiential learning.

Filling the Void Until Systems Change is Realized

Systemic change will necessarily take time to come to fruition. In the interim, additional resources are necessary to supplement the current, limited level of institutional support. There is a tendency for funding mechanisms to prioritize the generation of knowledge rather than its application and use, which is problematic for experiential learning and enduring policy engagement. Although funding decisions are entrenched in systems themselves, the expansion or addition of programs through increased funding is arguably less systemic than changing rules and norms regarding how research is produced and junior researchers are cultivated. Therefore, we discuss separately areas in which resources could augment the current system, including external policy training opportunities, support for researchers' policy engagement, and services that broker a match between policy opportunities and researchers' expertise. We recommend:

1. *Expanding fellowship training programs.* Substantial demand for both paid and unpaid policy training and engagement opportunities is apparent among both researchers and policymakers, including workshops and fellowship programs. For instance, in 2017, the RPC fellowship program supervised 14 graduate students and early career researchers who volunteered over 1,400 hours of their time to obtain experiential policy training. Furthermore, the demand for paid fellowship programs appears to be vastly under-resourced, as there are far fewer paid fellowship positions than the demand for those positions among both policymakers and researchers. More policymakers seek to host fellows than are able to be funded, a demand that may be exacerbated by diminishing legislative staff capacity as deep cuts have been made to U.S. federal congressional staff positions since 1985. The need for improving legislators' access to high quality, nonpartisan expertise presents an opportunity for researchers. Moreover, given that experiential learning appears to hold particular merit, paid fellowship programs should be expanded substantially because they hold promise for building policy competencies while overcoming barriers by funding researchers' time.

2. *Offering funding for policy engagement.* Research and philanthropic institutions should fund researchers' policy engagement in order to facilitate their experiential learning and strengthen the impact of research. Funding researchers' policy engagement efforts would fortify research institutions' and universities' public service missions by advancing the use of scientific knowledge in policy and practice. Moreover, outreach serves the research community broadly by demonstrating the value of research funding, as the majority of research and evaluation is funded by policymakers. Funding researchers' time should include direct costs (e.g., producing and disseminating written products; convening meetings) and indirect expenses (e.g., course release time). Additionally, travel funds are needed to consult with lawmakers, speak at hearings or briefings, and form and maintain critical relationships.
3. *Developing mechanisms to broker connections between researchers and policymakers around current policy priorities.* Organizations both within and outside of academic institutions, including intermediary organizations (e.g., professional associations and civic organizations), are uniquely positioned to broker researcher-policymaker relationships. These organizations should assess current policy priorities and facilitate a match between policy efforts and researchers who have direct subject-matter expertise and knowledge. For instance, the RPC has demonstrated the demand for brokerage mechanisms in prior work that evaluated feasibility and costs of implementation.

Moving the Field Forward with Additional Evaluation of Pedagogical Approaches

We sought to summarize current knowledge about approaches to researchers' policy competency development and advance recommendations for strengthening researchers' policy training and engagement, as supported by the authors' experiences and preliminary data. The current work begins to document unique benefits of different policy training approaches and how varied experiences contribute to researchers' policy competencies. Although the current work contributes to the field in meaningful ways, it is important to note that the data presented here are exploratory (e.g., they draw upon small convenience samples) and are insufficient for drawing strong conclusions. Much more research is needed to evaluate training approaches and enhance their effectiveness. Specifically, future research should strive to evaluate impact by longitudinally tracking researchers' reported confidence and skills, participation in policy efforts, and interactions with policymakers. Future efforts should also evaluate the extent to which these competencies translate into policymakers' increased utilization of research findings.

Conclusion

To strengthen the use of research evidence in public policy, researchers' policy skills and engagement must be supported with both instruction and experiential training opportunities. Although experiential learning holds promise for reinforcing researcher-policymaker interactions that are critically needed, policy engagement is often limited by institutional

barriers. Incremental systemic changes and institutional resources are needed to bridge the divide between science and policy in ways that improve public policy effectiveness and enhance impact on population health and wellbeing.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Suggestions for Further Reading

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Public Policy Relevance Statement

A growing body of literature on policymakers' use of research evidence demonstrates a need for improving interactions between researchers and policymakers. Although such connections have the potential to improve the effectiveness of public policies, researchers are often hindered by limited policy training opportunities and structural barriers that minimize their engagement in public policy processes. Research and training institutions must support policy engagement via both enhanced training opportunities and systemic reforms (e.g., reward systems, including promotion criteria) that bolster researchers' ability to bridge the research-policy divide.

Figure 1: The Research-to-Policy Collaboration Model Process.

Note: The labels of the Research to Policy Collaboration model (RPC) steps were abbreviated for illustration. RPC steps are not as linear as this model suggests; iterative feedback loops guide implementation at both capacity building and collaboration phases. This figure was adapted from Crowley et al. (2017).

Table 1:

Continuum of Policy Training Opportunities

Training Opportunity	Factors that Contribute to Intensity of Training Experiences				Examples
	Career Point	Primary Setting	Training Approach	Embedded in 'Home' Institution	Time Commitment
Graduate Courses	Graduate	University	Typically Instructional; Occasionally Experiential	Yes	Semester Applied Psychology and Public Policy
Graduate Mentor Apprenticeship Opportunities	Graduate	University	Experiential	Yes	One year or more Research Consortium on Gender-Based Violence
Policy Training Programs in Policy Centers	Graduate, Faculty	University	Instructional and Experiential	Yes	One year or more Edward Zigler Center in Child Development and Social Policy
Training Modules	Varies	On-site; On-line	Typically Instructional	Not typically	Ranges from one hour to multi-day series APA Division Trainings (e.g., SCRA, SPSSI) Aldo Leopold Leadership Program RPC
Collaborative Involvement with Advocacy Organizations	Varies	On-Site (Organization or Government)	Experiential	Not typically	Varies RESULTS RPC
Policy Fellowships	Post-Doc	On-Site (Organization or Government)	Experiential	No, but is embedded in external institution	One year or more AAAS APA RWJF SRCD

Note: AAAS = American Association for the Advancement of Science; APA = American Psychological Association; SCRA = Society for Community Research and Action; SPSSI = Society for Psychological Study of Social Issues; RESULTS = REAL Change Organizing and Advocacy Fellowship with RESULTS; RPC = Research-to-Policy Collaboration; RWJF = Robert Wood Johnson Foundation; SRCD = Society for Research in Child Development