



The impact of funding disruptions on large-scale teen pregnancy prevention research projects

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ABSTRACT

To advance the field of teen pregnancy prevention, new interventions must be developed and tested. The federal Teen Pregnancy Prevention program (TPP) funds the evaluation of promising interventions. We report on a funding disruption to 21 TPP Tier 2B research grantees across the US that was unusual for its ideological causation, sudden timing, severity, and ultimately court decisions compelling the agency to reverse the decision. We address the following question: How did challenges presented by the attempted funding termination impact grantees' ability to continue with their intended research? Results from grantee surveys in 2019 demonstrate the funding disruption negatively impacted participant recruitment, organizational collaboration, program delivery, research rigor, and compromised grantees' ability to complete high-quality evaluations. Results also show most projects could continue, with modified research goals, when funding was reinstated. We conclude administrations should avoid arbitrarily and prematurely terminating research projects. However, there is merit in reinstating funds to projects should a disruption occur. Results from this work are particularly relevant as we anticipate how health research projects may manage other disruptions to funding or timetables, such as those caused by COVID-19. Results are relevant to policy makers, researchers, government and private funders, grantees, and technical assistance teams.

1. Introduction

In 2017 [1,2], the birth rate for women aged 15–19 reached a record low of 18.8 per 1,000 women [3]. Despite this decline, racial/ethnic, geographic and socioeconomic disparities persist [3]. To this end, US Congress appropriated significant federal funds on seeking promising approaches that specifically address underrepresented youth populations or use technology to facilitate access to services [4].

Advancements in science, research, and innovation are sometimes threatened by shifts in, or insufficient amounts, of federal research funding [5]. This is especially true when priorities and funding availability change as new administrations come into office or Congress

terminates, revises, or adjusts appropriations levels of programs [5,6]. Such was the case in 2017–2018 when the Office of Population Affairs (OPA), at the direction of the executive administration, notified TPP grantees that their five-year projects were being truncated to three years [1,2,7].

In 2015, a cohort [8] of grantees was funded by the Department of Health and Human Services (DHHS) (OPA). TPP projects fell under one of four different tiers and were authorized to conduct five-year projects (subject to the availability of appropriations and grantee performance) [8]. Grantees in Tier 2B were 21 projects that rigorously evaluated promising approaches to prevent teen pregnancy and are presented in this article. Tier 2B grantees were required to conduct high quality

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rigorous evaluations that strictly adhered to the DHHS Evidence Review criteria [9]. As such, Tier 2B projects were large in terms of scope, scale, and budget.

In July 2017 OPA suddenly notified TPP grantees that their five-year projects were being truncated to three years. DHHS decided to terminate the projects early without authorization or permission from Congress to redirect appropriated funds to other purposes. Projects were instructed to use the third year of their heretofore five years to close out all research activities. Several lawsuits were filed on behalf of the grantees. Between April and June 2018, multiple federal courts ruled in favor of the grantees and overturned DHHS' attempted termination of the TPP projects [7,10]. Responding to court orders, OPA notified grantees one month before their anticipated project end dates that their funding would indeed continue through the fifth year [1,2].

Although premature termination of federal funding sometimes occurs, this process was unusual both for its ideological causation [1,2], sudden timing, severity, and, ultimately, having courts order that DHHS reverse its decision to terminate the grants [7]. The unique series of events experienced by these grantees presents an opportunity to study how such a funding disruption can affect the implementation and quality of research projects.

2. Materials and methods

The author group, named the Grantee Learning Collaborative (GLC), consisted of recipients of OPA funds. Some authors implemented or evaluated the programs described in this analytic essay. Other authors provided technical assistance to TPP grantees. However, the work for this article was a collaborative activity independent of their research projects.

The data collection and analytic work for this manuscript was reviewed and verified as Exempt according to 45CFR46.104(d)(4): Secondary Research Uses of Data or Specimens. Grantees were informed of the GLC's intent to collect data and report on challenges associated with the evaluation of their research projects, including those related to the loss and subsequent reinstatement of funding. Grantees were able to participate on a voluntary basis.

2.1. Measures

The GLC collected data in April and November 2019. *Survey #1: Qualitative Data:* Respondents were asked "As program staff and evaluators, what are some of the major evaluation roadblocks you've experienced?" Free responses were collected. *Survey #2: Quantitative Data:* The survey asked respondents how their original research design was affected by the funding disruption; whether the loss of funding impacted project implementation and evaluation in twelve areas; their ability to sustain specific research activities in the absence of federal funds; and whether they had pursued other funding sources when funding termination was announced. See Tables 1 and 2 for response options and results. *Qualitative Data:* Respondents were asked (1) "If funding had not been reinstated after Year 3, would you have been able to complete the research component of your project?" And (2) "If you knew funding would be cut from the start of your project in Year 3, what would you have done differently, if anything?" Free responses were collected.

2.2. Participants

All 2015 Tier 2B grantees (n = 21) were invited to take part in both GLC surveys. Grantees represented a diversity of programmatic and research centers across the U.S. including non-profits (n = 11), public health departments (n = 3), research organizations (n = 3), and universities (n = 4). Grantees implemented their projects in community-based (n = 7), clinical (n = 4), school-based settings (n = 8), and technology-based (n = 2). Grantee representatives voluntarily participated in either one, both, or none of the surveys. If they decided to

Table 1

Impact of funding disruption on project activities reported by percent of respondents.

Project activity impacted by the funding disruption	Negative impact (n)	Positive impact (n)	No impact (n)	No response
Maintaining staff and organizational morale	79 % (11)	0 % (0)	21 % (3)	0 % (0)
Recruiting participants	50 % (7)	0 % (0)	36 % (5)	14 % (2)
Securing required sample size	57 % (8)	7 % (1)	36 % (5)	0 % (0)
Receiving technical guidance or support	57 % (8)	14 % (2)	29 % (4)	0 % (0)
Adhering to project strategy	50 % (7)	0 % (0)	43 % (6)	7 % (1)
Adhering to evaluation design to maintain rigor	50 % (7)	7 % (1)	36 % (5)	7 % (1)
Sustaining staff	50 % (7)	0 % (0)	50 % (7)	0 % (0)
Successfully offer the program being evaluated	50 % (7)	0 % (0)	50 % (7)	0 % (0)
Maintaining study timeline	43 % (6)	0 % (0)	50 % (7)	7 % (1)
Sustaining community and organizational partnership	43 % (6)	0 % (0)	57 % (8)	0 % (0)
Securing high response rates	36 % (5)	0 % (0)	64 % (9)	0 % (0)
Overall grantee organization	21 % (3)	0 % (0)	79 % (11)	0 % (0)

Table 2

Grantees' ability to secure additional funding.

Experience securing additional funding	No	Yes	No response
Grantees that had the ability to continue research without OPA funding	71 % (10)	29 % (4)	0 % (0)
Grantees that sought other funding opportunities to continue the research	14 % (2)	86 % (12)	0 % (0)
Grantees who secured alternate funding to continue the research, of those who sought other funding opportunities (n = 12)	67 % (8)	33 % (4)	0 % (0)

participate, they provided consent to use their data and responses via the second survey.

2.3. Analysis

Quantitative data was descriptive in nature and analyzed using Microsoft Excel; frequencies and percentages are presented. To describe how challenges presented by the funding disruption initially impacted grantees' ability to continue with their intended research aims, we used a thematic approach to analyze the qualitative data [11]. Qualitative data were analyzed using Dedoose [12]. In some instances, both the grantee and the lead evaluator responded to the same survey resulting in multiple open-ended responses for the same project. We analyzed emerging themes based on the number of grantees that expressed an issue, and not the number of times an issue was mentioned.

3. Results

Ninety percent of the 21 grantees responded to at least one of the two surveys. However, the bulk of the findings are based on (66%; n = 14) of grantees. Half of respondents (50%; n = 7) changed their research plan in a way that compromised its quality. As shown in Table 1, at least half or more of respondents said the funding disruption negatively impacted maintaining staff and organizational morale (79%; n = 11), ability to recruit participants (50%; n = 7), securing required sample size (57%; n = 8), receiving technical guidance and support (57%; n = 8), adhering

to the project strategy (50 %; n = 7), adhering to the evaluation design to maintain rigor (50 %; n = 7), sustaining staff (50 %; n = 7), and successfully offering the project being evaluated (50 %; n = 7). As one grantee shared, “Funding related concerns and the need to phase down our evaluation two years earlier than planned resulted in challenges to the rigor of our evaluation.”

The attempted termination negatively impacted staffing and organizational collaborations. More than three in four respondents (79 %; n = 11) said the funding disruption negatively impacted morale. Several grantees ceased operations and canceled contracts. This meant that upon reinstatement, grantees needed to hire new staff, conduct new trainings, and secure new contracts to resume programmatic and research activities. Some grantees lost major partners and implementation sites. Some (43 %; n = 6) reported that the funding disruption strained the relationships they had already built in the community. One grantee shared, “When we went back when funding resumed, our reputation had already been damaged and re-engaging sites, champions, and youth was that much more difficult.”

OPA provided funding for technical assistance (TA) in evaluation to their grantees. Funding for this third-party TA administrator was also discontinued in year three and not reinstated until year 5. Many respondents (57 %; n = 8) noted that this loss of TA support and guidance negatively impacted their research because it had helped them conduct a high-quality rigorous evaluation in accordance with the DHHS Teen Pregnancy Prevention Evidence Review criteria [9]. One grantee wrote, “The loss of evaluation TA provided in [year three] removed access to highly talented researchers that could have provided additional guidance to strengthen our research design and analyses.”

Although most respondents (86 %; n = 12) applied for funding through other sources when notified of the impending funding termination, only 33 % (n = 4) of those seeking funding from other sources were able to secure alternative funding (Table 2). Grantees’ time and energy applying for grants during the project period caused its own disruption. For example, one respondent wrote, “The additional work/burden of trying to find supplementary funding caused stress and anxiety. The threatened grant cut was a tremendous expenditure of time and energy by our team that could have been devoted to continuing the important program with the youth and families we are trying to serve.” Grantees who said they could continue their research stated it was due to funding from private foundations, internal funding from their own organization, or having a design that could be shortened to three years. One of the grantees who identified an alternative funding source shared, “We worked intensively to find supplemental funding. I believe in the end we got lucky in finding a private funder to support the continuation of data collection. Appealing to private funders to save an ongoing study...was difficult and so many organizations...were not interested. Fortunately, we had this capacity in terms of availability of fundraising staff and internal funding...to support their time.”

Despite the funding disruption, all grantees demonstrated resilience and were able to continue their research projects to some extent. Specifically, 21 % (n = 3) of respondents said they were able to continue with their original research plan without needing to make modifications based on the funding disruption; 7 % (n = 1) reported changing their research plan in a way that strengthened it; however, 50 % (n = 7) reported changes they made reduced their studies’ quality. There was a 21 % (n = 3) no-response rate for this item.

A variety of strategies were used by grantees to restart the research after funding was reinstated such as altering recruitment methods, shortening follow-up timelines, leveraging prior partnerships for project continuation, and shifting programming, training, and data collection to online, text, phone, or social media platforms. For example, one grantee noted, “The intervention was originally designed to be delivered in-person, but to ensure feasibility of recruitment within the new funding period, we revised the recruitment and intervention delivery plan to occur online and by phone.” Many respondents (50 %; n = 7) altered their study design and timeline, which included shortening their overall

project timeframe and timeline for follow-up data collection to account for time lost during the attempted funding termination. When funding was reinstated, a few grantees (14 %; n = 2) recruited an entirely new sample because participants previously recruited were no longer eligible for the follow-up surveys (i.e., too much time had lapsed for a 6 month follow up). To address the truncated project period, some grantees extended their recruitment timeline; however, it limited the amount of time they had to analyze results. Other grantees shortened the length of their project to include a final data collection time point.

Several grantees (14 %; n = 2) reported that when faced with recruitment challenges, they turned to social media as a new strategy. One grantee excelled at recruiting youth online and shared their lessons learned with other grantees. Several grantees described the resilience of their projects. As one said, “...the team has been innovative and proactive to do the most we can with the reduced timeframe.” In response to the removal of the federal evaluation TA, one grantee noted, “this challenge was met by relying on the expertise of our evaluation partner.” Other respondents said that the funding disruption provided an unanticipated opportunity to find new partners and local community resources, resulting in positive results: “For one of those new community partners, a more productive relationship was built, and our enrollment numbers improved as a result.”

4. Discussion

The experience of 2015 Tier 2B TPP grantees suggests that funding disruptions have negative impacts on project implementation and research, particularly rigorous evaluations. Accordingly, funders of research projects, including Congress and the federal executive branch, should not terminate research projects prematurely except in cases of the unavailability of funds, poor grantee performance, or grantee illegal or unethical behavior. Nevertheless, grantees were resilient and able to adjust their projects when funds were reinstated, although there was deviation from the original project intent and research quality was compromised. The alternate possibility, that the funding disruption was so disruptive that projects were not able to re-establish programming and continue their research at all, was worth exploring given the absence of this topic in the literature.

Despite the resilience demonstrated by some TPP grantees, our findings do not imply that the projects were able to *achieve* their original intended research goals. This is particularly important to note for Tier 2B research grantees who were required to conduct high-quality, rigorous evaluations with sufficient power to detect statistically significant impacts of the intervention being evaluated. In fact, our analysis of the survey data indicates that the challenges created by the funding disruption resulted in most respondents replacing their original research plan with a less rigorous evaluation design. Therefore, we can conclude that while the grantees were resourceful in their ability to navigate the funding disruption and continue their projects, midcourse funding changes can have negative long-term consequences impacting the ability of grantees to produce project evaluation results that meet high quality standards. For example, studies that experience reduced sample sizes can lose the ability to detect statistically significant changes [14]. Similarly, projects that experience delays in data collection may not have enough time to detect long-term study effects [14].

The inability to produce findings that add to the evidence of what works to prevent teen pregnancy leaves a void in the field of diverse and innovative methods for young people at greatest risk of experiencing teen pregnancy. Other effects reported such as organizational staff losses or partnership difficulties may have other long-lasting impacts that disrupt services beyond those funded by TPP.

Tier 2B grantees’ ability to achieve positive program impacts for this cohort will not be available until their results are analyzed and reviewed at the end of the grant cycle. At that time, a new opportunity to study the long-term impacts of the funding disruption may be of interest to expand on our findings.

Findings also highlight both the need for and the ability of researchers to adapt, be agile, and pivot research designs when new – and often unexpected – challenges arise. In this situation, grantees were able to adjust their project scope to acknowledge the shorter project period, and then pivot again when the original project length was restored. They did so in a variety of ways, based upon their target population, local resources, and team strengths. The innovation and creativity exhibited by grantees (ability to access other resources; use alternate forms of reaching participants; restore staffing and partnerships) is relevant to current and future projects who encounter unexpected challenges such as funding disruptions or other circumstances such as COVID-19.

These demonstrated attributes among grantees may reflect the quality of the funder's competitive selection process to select organizations with extensive experience and capacity to craft teams and projects that can withstand inevitable changes and challenges. Funders may benefit from including specific selection criteria to assess the ability of applicants to not only address common barriers associated with research but also the possibility of major disruptions. Finally, findings suggests that, in the future, if federal funders terminate funding midcourse, alternative funding sources such as private foundations may play a key role in continuing research projects.

4.1. Limitations

The Tier 2B grantees were a subset of TPP grantees; thus, it is possible that grantees from other tiers had different experiences pertaining to the funding disruption. Also, the data collection was not anonymous, which may have contributed to social desirability bias to some extent. In addition, some of the authors of this manuscript participated in the initial surveys prior to the writing of this manuscript and should be noted as a limitation.

5. Conclusion

Findings from our analytic work suggest that the arbitrary and capricious [1,2,13] decision by the Department of Health and Human Services to prematurely truncate funding to the Teen Pregnancy Prevention program negatively impacted teen pregnancy prevention research projects' ability to complete high-quality evaluations of promising interventions. Yet results also suggest research is at least partially salvageable when funds are reinstated. The degree of disruption and resilience experienced by each project varied based on several factors such as the organizational capacity to continue or secure additional funding, creative capability of project staff and evaluators to modify original evaluation designs, local partnerships and resources, and mode of delivery. Nonetheless, in the future, if funders attempt to terminate or succeed in terminating research projects midcourse, project staff, funders, and outside agencies should, to the extent possible, work together to identify alternative (or the reinstatement of) funding to ensure original project goals can still be achieved.

CRediT authorship contribution statement

Gina Gonzalez Hofert: Conceptualization, Methodology, Investigation, Writing – original draft, Visualization, Supervision, Project administration. **Genevieve Martinez-Garcia:** Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Writing – original draft, Visualization. **Lauren Tingey:**

Conceptualization, Methodology, Validation, Writing – original draft, Visualization. **Michele Ybarra:** Conceptualization, Methodology, Writing – original draft, Visualization. **Ash Philliber:** Conceptualization, Methodology, Software, Investigation, Writing – original draft, Visualization. **Jordan Karas:** Conceptualization, Methodology, Investigation, Resources, Writing – review & editing, Project administration, Funding acquisition. **Melanie Grafals:** Conceptualization, Methodology, Resources, Writing – review & editing. **Milagros Garrido:** Conceptualization, Methodology, Investigation, Resources, Writing – original draft, Funding acquisition. **Sarah Parchem:** Conceptualization, Methodology, Writing – review & editing. **Erin Yager-DeConcini:** Conceptualization, Funding acquisition.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Declarations of financial interest: none. Other potential competing interest: Some of the authors served in some capacity on or with the grantee projects being described in this paper.

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