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EVALUATION & ANALYTICAL SERVICES (EAS) PROJECT FOR THE REGIONAL PEACE AND GOVERNANCE PROGRAMS

Impact Evaluation of Peace through Development II (P-DEV II) Radio
Programming in Chad and Niger

FINAL REPORT

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EXECUTIVE SUMMARY

This document is a report on the radio component of Peace through Development II (P-DEV II), a multi-year development program funded by the United States Agency for International Development/West Africa (USAID/WA), whose main goal is to counter violent extremism in Chad, Niger, and Burkina Faso. P-DEV II has four strategic objectives: 1) empower youth; 2) increase moderate voices; 3) increase the capacity of civil society; and 4) strengthen local government. The program seeks to advance these four strategic objectives by concentrating its efforts on improving three more specific and measurable goals: 1) social cohesion; 2) resilience to violent extremism; and 3) youth outlook. The expectation is that reaching these goals will build stronger communities and serve as a deterrent against violence, extremist ideologies, and terrorist groups.

Part of P-DEV II efforts are concentrated on building the capacity of local radio stations to produce and broadcast content by providing them with equipment, technical assistance, and training of their staff. In Chad, training and equipment upgrades to partner radio stations led to the production and broadcasting of the series *Dabalaye* (The Meeting Place), a governance radio program, and *Chabab Al Haye* (Youth Alive), a program targeting youth. In Niger, local radio station capacity building led to the production and broadcasting of the series *Sada Zumunci* (Solidarity), a governance radio program, and *Gwadaben Matasa* (Youth Boulevard), a youth program.

This report presents an assessment of P-DEV II radio programming in relation to its strategic objectives and stated goals by evaluating the impact of radio broadcasts among youth (ages 15-30) in selected radio-only zones (non-core) in Chad and Niger. To assess the impact of P-DEV II radio programming, the research design followed a three-pronged strategy: 1) conducting a longitudinal study using panel data; 2) conducting a field experiment; and 3) embedding experiments in the survey instrument.

A total of six target zones were selected for data collection in Chad and Niger. Survey data were collected among a randomly selected sample of individuals aged 15-30 in three non-core (radio- only) zones in each country, totaling 750 interviews per country, per wave. Among those interviewed in the second wave, 440 could be verified as the same individuals interviewed in wave I in Chad, and 321 in Niger.

The report presents survey data on P-DEV II radio listenership and frequency of listenership over time in Chad and Niger. Descriptions of the demographic profiles of radio listeners and non- listeners are made, and differences in social cohesion, resilience to violent extremism, and youth outlook between listeners and non-listeners within each country are presented.

P-DEV II radio listenership

In Chad, 36% of the sample listened to the local governance program, and 25% listened to the youth program. In Niger, 63% of the sample listened to the governance program and 62% listened to the youth program. There is substantial overlap in listenership between the two radio programs. Both countries exhibit similar patterns of frequency of P-DEV II radio

listenership. In Chad and Niger, 90% or more radio listeners report listening to the governance and youth broadcasts at least on a weekly basis. The demographic profile of listenership was similar in both countries in terms of gender and age but diverged with respect to education, religiosity and socio-economic status. In Niger, listenership is associated with higher religiosity, lower levels of education, and a lower socio-economic status, and the opposite trend is observed in Chad.

To assess the effect of the P-DEV II radio listenership, an experimental manipulation through an “encouragement design” was conducted to overcome self-selection bias. Unfortunately, the encouragement was unsuccessful in increasing rates of radio listenership in either country. For this reason, it was not possible to use the field experimental data to reliably estimate the causal effect of radio listenership on program outcomes.

Main results

The analyses presented in this report use panel data to estimate causal effects by examining patterns of change among individuals who report having listened to radio programs over time. This report employs the following dynamic typology of radio listenership to estimate the impact of P-DEV II radio programming: “Always Listeners” are those who reported listening in both waves, “Never Listeners,” are those who did not report listening in either wave, “Tune Ins” who listened in wave 2 only, and “Tune Outs” listened only in wave 1.

Goal 1: Social cohesion

P-DEV II radio programming had positive effects on interaction with people from other ethnicities in Chad, but no impact in Niger. The impact of radio listenership on interpersonal and institutional trust is mixed. In Chad, positive effects on trust in local government, central government and in religious leaders were found, but radio listenership had a negative effect on interpersonal trust. In Niger, listenership had positive effects on trust in local government and in religious leaders, but a negative effect on trust in the police.

There are relatively strong positive effects of P-DEV II radio programming on the perception that other ethnic groups and youth participate in decision-making in Chad. In Niger, by contrast, negative effects were found on the perception that women and the respondent’s own ethnic group are involved in decision-making.

Regarding who *should* make decisions in the community, negative effects are observed in the two countries. In Chad, radio listenership decreases the support for women and members of the own ethnic group to participate in decision-making. In Niger, negative effects of radio programming on support for participation of youth, ordinary people and women were found.

The results also suggest that P-DEV II radio programming had an important mobilizing impact in both countries. Radio listenership caused an increase in political participation, and this impact was greater among those frequently exposed to the radio broadcasts.

Goal 2: Resilience to Violent Extremism

P-DEV II radio programming had positive effects on external and internal efficacy in both countries. Increased frequency of listenership strengthens these positive effects on efficacy, especially in Chad.

Radio listenership reduced perceptions of religious divisions in the community in Chad, but no effects were found in Niger. A similar pattern emerges with respect to attitudes towards violence. Listenership also decreases the perception that using violence is an effective solution to problems and as an appropriate means to defend one's religion in Chad. No effects of P-DEV II radio programming were found in Niger.

The results with respect to religious extremism are mixed. In Chad, listenership increased agreement with the statement that violence in the name of Islam can be justified, but decreased support for the implementation of strict Sharia Law. In Niger, listenership increased the belief that the U.S. is at war with Islam rather than with terrorism.

Goal 3: Youth Outlook

P-DEV II radio program effects on life satisfaction among youth are negative in Chad and Niger. In Chad, listenership reduces retrospective, current and prospective life satisfaction. In Niger, the negative effects are strongest on retrospective and prospective life satisfaction. Frequent exposure to the radio broadcasts further reduces satisfaction with life in both countries.

In Chad, we also observe negative program effects on satisfaction with public services, while we find an increased interest in local affairs among radio listeners. No program effects on satisfaction with services or political interest were found in Niger.

INTRODUCTION

This report presents an assessment of the radio component of the Peace through Development program (P-DEV II) in relation to its strategic objectives and stated goals regarding individual and community resilience against violent extremism and extremist ideologies in Chad and Niger. In 2013-2014, the Evaluation and Analytic Support (EAS) evaluation team conducted two waves of data collection in selected non-core zones in Chad and Niger.¹ “Non-core” zones are P-DEV II areas that have been designated by IRD and USAID for exposure only to the program’s media treatments, primarily radio programming related to good governance and countering violent extremism among youth.²

The goal of the evaluation is to assess program impact by comparing changes in indicators related to P-DEV II’s strategic objectives and goal-level indicators among those exposed to the youth and governance radio programs, taking into account individuals’ differences in listenership and demographic characteristics. The results described in this report thus provide important information about differences that may exist between individuals exposed/not exposed to the radio component of P-DEV II in the relatively early stages of the program. The results here complement those from the baseline report by providing additional information about the overall social and political context within which P-DEV II radio activities are taking place in each country, and about the extent to which individuals and communities in zones where P-DEV II radio programming is active in general are vulnerable to extremist violence, support extremist ideologies and/or display potentially low levels of social cohesion and negative outlook among youth.

The report is structured as follows. In the remainder of this section, we describe P-DEV II radio programming along with the program’s stated goals and provide a brief overview of the literature on violent extremism. Next, in Section II, we discuss the methodology of this study including study design, questionnaire development, data collection, and implementation issues. Section III presents the results of the analysis and outlines the next steps to be taken for assessing the impact of P-DEV II radio programming. Section IV concludes and discusses the implications of the analysis.

A. DESCRIPTION OF PEACE THROUGH DEVELOPMENT (P DEV II) RADIO PROGRAMMING

The Peace through Development II (P-DEV II) program is a multi-year development program whose overarching objective is to counter extremist violence and adherence to extremist ideologies in Chad, Niger, and Burkina Faso. P-DEV II is the largest United States Agency for

International Development/West Africa (USAID/WA)-funded program specifically designed for this purpose. P-DEV II activities are organized and structured to maximize the impact of the program in achieving its goal. Under the overarching framework of countering violent extremism (CVE) through social and political development, P-DEV II has four multi-faceted, strategic

¹ The EAS evaluation team is comprised of The Mitchell Group and The University of Pittsburgh.

² “Core” zones, on the other hand, are P-DEV II areas that have been designated by IRD and USAID for exposure to the full array of P-DEV II activities, including radio programming.

objectives: 1) youth more empowered; 2) moderate voices increased; 3) civil society capacity increased; and 4) local government strengthened. The program seeks to advance these four strategic objectives by concentrating its efforts on improving three more specific and measurable goals: 1) *social cohesion*; 2) *resilience to violent extremism*; and 3) *youth outlook*.

The expectation is that furthering these goals would provide the foundation for communities that are more united by tolerance rather than extreme ideology, that are less likely to experience extremist violence, and that provide a more promising future for its members. Taken together, the attainment of these goals would build stronger and more “resilient” communities, which would constitute a powerful deterrent against violent extremism, extremist ideologies, and support for terrorist groups.

P-DEV II Radio programming

The radio component of P-DEV II stems directly from the program’s strategic objectives of empowering youth, increasing moderate voices, improving the capacity of civil society, and strengthening local government. P-DEV II works to build the capacity of local radio stations to produce and broadcast CVE content of an acceptable standard by providing them with equipment, technical assistance, and training of their staff. Partner radio stations produce their own CVE content that meets P-DEV II standards for broadcast as reviewed by a Content Advisory Group (CAG). CAGs include P-DEV II component managers, production staff, media professionals, representatives from respective government ministries, as well as youth and human rights civil society groups. The groups work together to provide feedback on the episode scripts and to engage in a critical listening of monthly P-DEV II radio programs. Feedback focuses on everything from language and technical quality of the productions to more in-depth feedback about the angle of approach, themes chosen, and how best/better to reach target audiences. The CAGs, overall, are vehicles for validating that P-DEV II stakeholders and target audiences are represented in the program creation process, which is central to the program’s methodology.

In Chad, training and equipment upgrades to partner radio stations led to the production and broadcasting of the series *Dabalaye* (The Meeting Place), a governance radio program, and *Chabab Al Haya* (Youth Alive), a program targeting youth. *Dabalaye* episodes address themes such as nonviolence, tolerance and diversity, human rights, pluralism, decentralization, and participation. *Chabab Al Haya* episodes address themes such as youth violence, personal conflict, human rights, political engagement, professional development, and youth mobilization.

In Niger, radio station capacity building led to the production and broadcasting of the series *Sada Zumunci* (Solidarity), a governance radio program, and *Gwadaben Matasa* (Youth Boulevard), a youth program. *Sada Zumunci* episodes address themes such as refugee reintegration, national stability, social development, participation, and good governance. *Gwadaben Matasa* episodes address themes such as social and family cohesion, community safety, professional development, women’s empowerment, youth roles and independence, and drug use. Episodes for all four programs are between 20-30 minutes long and are broadcasted on different days of the week and at different times, depending on the radio

station. A full list of episodes and topics covered by these programs in each country during the period of the study can be found in the Appendix.

METHODOLOGY

A. STUDY DESIGN

This document reports on the impact of the radio component of the P-DEV II program among youth (ages 15-30) in selected non-core zones (radio-only) in Chad and Niger. To assess the impact of P-DEV II radio programming, the Evaluation and Analytic Support Team (EAS) proposed a three-pronged strategy: 1) conducting a longitudinal study using panel data; 2) conducting a field experiment; and 3) embedding experiments in the survey instrument.

Panel Data

The first aspect of the study consisted in collecting “panel data” in which the same individuals are re-interviewed at different stages in the evaluation process. The EAS Team retained information on the respondents interviewed in the first wave of data collection for verification purposes, allowing for panel data collection. Panel data enables the EAS Team to analyze a dataset with multiple observations for the same individual at different points in time. This is ideal for program evaluation purposes because we can observe the same person in more than one condition, that is, before and after exposure to P-DEV II radio programming. Therefore, panel data allows the EAS Team to estimate how changes in radio listenership affect program outcomes over time, independent from other factors. Panel data also allows us to account for possible biases that may arise with cross-sectional data due to what is known as “unobserved heterogeneity” or stable but *unmeasured* variables that differ across individuals and that affect outcomes at every point in time.

Field experiment (encouragement design)

To assess the effect of the P-DEV II radio programming, the EAS Team proposed conducting an experimental manipulation through an “encouragement design” to overcome biases related to self-selection into radio listenership. This procedure involved inviting a randomly selected portion of the youths interviewed in the first wave of the survey to listen to P-DEV II radio programs being broadcasted in her or his country. The “encouragement” consists of providing respondents with postcards containing information on when the radio program would be aired and the broadcasting station with follow-up text messages reminding respondents to listen to it.

The expectation of the experimental manipulation was that respondents who received the encouragement postcards and text message reminders would be more likely to listen to the radio broadcasts than those who did not receive them. This experimentally-induced increase in listenership would allow us to estimate the impact of P-DEV II radio programming among what are known as “compliers,” that is, a subset of the sample comprised of respondents who listen

to the broadcasts because they were encouraged to do so (and otherwise would not have listened).

Survey instrument and embedded experiments

The survey instrument developed for the P-DEV II baseline study was used as the basis for the evaluation of the radio component of the program. The EAS Team included items related to radio exposure and kept all of the items from the original baseline survey for comparability purposes. In addition, the survey instrument takes advantage of new tools available to researchers for capturing the true feelings and attitudes of respondents faced with sensitive questions such as attitudes toward violence and support for militant groups. For these types of questions, the survey instrument developed by the EAS Team overcomes the problem of social desirability bias through the addition of unobtrusive measures. Specifically, it includes “list experiments” to attempt to capture aggregate levels of support for terrorist actions that may involve the deaths of civilians and willingness to join a group that carries out acts of violence, as well as “endorsement experiments” to measure support for militant groups operating in the Sahel region. Both experimental techniques are considered unobtrusive in the sense that they provide measures of sensitive topics that are less susceptible to social desirability biases than direct survey questions (Blair and Imai 2012; Glynn 2013).

B. DATA COLLECTION

This section describes the target zone selection procedure and the data collection timeline, and includes a table summarizing the study design. The same survey firm TNS conducted the two waves of data collection during 2013 – 2014, which eliminated any potential biases that may have arisen through the use of different survey companies.

Target zone selection

To assess the impact of the radio component of the P-DEV II program, the EAS Team proposed data collection among youth in selected non-core (radio only) zones in Chad and Niger, with additional interviews conducted among youth in a similar zone that was completely untreated by P-DEV II programming. One rural and two urban communes were selected in each country, identified according to the strength of radio signal coverage in the target zone, and selected according to similarity in CVE score.³ To do this, we selected zones identified by Equal Access⁴ as having at least “acceptable” radio signal strength. We then identified other zones with similar population, CVE score, and urban or rural characteristics. Each target zone selected was required to match at least one other target zone on these

³ The CVE Ranks are a numeric value assigned to communes and are intended to depict: administrative importance, level of exposure to VE threat, poor youth conditions and importance of their number in the commune, demographic tensions and poverty level. Worse conditions were scored higher on these criteria. A final element of determination of programming priority was whether a serious presence of other actors implementing CVE programming; these zones were avoided.

⁴ Equal Access is a subcontractor to International Relief and Development. Equal Access was tasked with producing the CVE material provided via radio for P-DEV II, engaging with local leadership to deliver CVE-aligned messages, and capacity development for media outlets and individuals associated with the radio programming.

characteristics. In order to account for the possible spillover of radio activity, the EAS team also identified zones that were assigned a CVE score and either had not yet received radio programming or that were out of service from the existing broadcast range.

The following zones were selected in Chad: N'Djamena Arrondissement I (Urban), Yao (Urban), Ntiona (Rural), and Assinet (rural, non-radio); and in Niger: Tebaram (Urban), Guidan Roundji (Urban), Matameye (Rural), and Dan Issa (rural, non-radio). Near the beginning of survey implementation, however, security concerns raised by TNS necessitated a change in zone selection. Although Tabelot (in Agadez) was initially selected, the supervisors and enumerators from the region indicated that it was not safe to work there due to the presence of road bandits, land mines, and rebel/extremist group activity. This led to the substitution of Matameye for Tabelot and the corresponding change in Chad of N'Djamena Commune I for the initially selected Melea to balance the rural/urban mix of communes selected.

Data collection

TNS went to the field for the first wave of data collection between September and November 2013 in both countries. The first interviews were conducted in Chad on September 16, 2013 and the field period for the first wave lasted until November 30, 2013 in Niger. The second wave of data collection started in July 2014, with the first interviews conducted in Chad on July 25, 2014 and the field period lasting until September 24, 2014 in Niger.⁵ Table I summarizes the data collection timeline, the number of sampled zones, and the number of interviews conducted by country and zone.

Table I. Data Collection Timeline

Wave/Country		Date	Zones		# of Interviews	
			Radio	No PDEV II	P-DEV II Radio	No P-DEV II
Wave 1	Chad	September – November 2013	3	1	525 encouraged 225 non-encouraged	150
	Niger		3	1	525 encouraged 225 non-encouraged	150
	Total		6	2	1,500	300
Wave 2	Chad	July – September 2014	3	1	525 encouraged 225 non-encouraged	150
	Niger		3	1	525 encouraged 225 non-encouraged	150
	Total		6	2	1,500	300
			Total Interviews		3,000	600

⁵ Following the initial round of data collection, the zones of Guidan Roundji and Matamèye in Niger had an unacceptably low (60% and 78% respectively) response rate due to respondents traveling for Ramadan and the follow-up data collection occurring during the rainy season. Because of concerns relating to attrition bias of Muslim respondents, the EAS Team requested that TNS return to the field to collect additional observations in the zone in order to obtain an acceptable response rate. The second round occurred September 15-23, 2014. It boosted the number of observations (in the two zones to 80% and 84% respectively) to an acceptable 86% response rate.

Data were collected among a randomly selected sample of individuals aged 15-30 in three non-core (radio-only) zones in each country, totaling 750 interviews per country, per wave. The panel design called for re-interviews with the same 750 youth who were interviewed during the first wave of data collection, of which 525 were “encouraged” at random to listen to P-DEV II radio programming, and 225 were not encouraged. The total possible number of interviews was 3,600 including the “spillover” zones. This report focuses exclusively on the P-DEV II radio zones.

C. PANEL VERIFICATION AND ATTRITION

One of the challenges of conducting a panel study is making sure that the exact same respondents who are interviewed in the first wave of data collection are re-interviewed in subsequent waves. In our case, the EAS Team retained personal information on respondents interviewed in the first wave of data collection for panel verification purposes and established the panel verification procedure in consultation with TNS.

During the second wave of data collection (July – September 2014), the EAS Team included a cover sheet in the survey instrument with each respondent’s name and selected demographic variables and the following verification script for the enumerators hired by TNS:

“INTERVIEWER: Before proceeding, verify that the person you are interviewing is the same person interviewed in wave 1. Cross check items A1-A3 with the answers from wave 1 at the bottom of page 3.”

Items A1, A2, and A3 were, respectively, age, sex, and education. After cross-checking, enumerators were then prompted to answer whether: 1) they knew the respondent as the one they interviewed in the first wave of the survey; 2) they did not interview the respondent in the first wave of the survey but the name and at least two demographic characteristics correspond with the information from wave; or 3) they could not verify that this person is the same one interviewed in the first wave of the survey.

Table 2 shows the distribution of respondents verified by the same enumerator or by a different enumerator. We also report the panel attrition, which are respondents whom enumerators were unable to locate in the second wave of data collection. The proportion of respondents verified by the same enumerator or by different enumerators varied considerably by country. Panel attrition was slightly higher than expected, which is likely due to the fact that the first and second waves of data collection were conducted at a somewhat longer interval than originally anticipated.

Table 2. Respondent Verification and Sample Attrition

	Chad	Niger
Verified by same enumerator	440 (58.51%)	321 (42.80%)
Verified by different enumerator	187 (24.87%)	339 (45.20%)
Panel attrition	125 (16.62%)	90 (12.00%)
Total	752	750

To validate the enumerator verification procedure, the EAS Team conducted a simple lagged correlation analysis conditional on whether respondents were interviewed by the same enumerator in both waves or by different enumerators in each wave. In panel analysis, the expectation is to observe moderate to strong and positive lagged correlations between waves of observations.

Tables A1 and A2 in the Appendix show the means, standard deviations (in parentheses), and lagged correlations by type of respondent. The first thing to note is that, on average, the lagged correlations are stronger among respondents re-interviewed by the same enumerator than among respondents re-interviewed by a different enumerator. In fact, the low correlations for respondents re-interviewed by different enumerators are highly unusual for panel data, particularly for variables that are assumed to be reasonably stable across waves of observations. These include employment, listening to music on the radio, and watching television, among others. These patterns are observed consistently in both countries and for additional variables in the dataset.⁶ The magnitude of the inconsistencies found in the lagged correlations led the EAS

Team to conclude that respondents re-interviewed by different enumerators cannot be credibly verified as being the same individuals. In order to preserve the scientific integrity of the study, we therefore decided to eliminate these cases from further analysis. This leaves the effective sample at 440 “verified” panel observations in Chad and 321 “verified” observations in Niger.

D. PDEV II RADIO LISTENERSHIP

Radio listenership was measured using self-reported accounts asked in both waves of the survey. The survey items asked respondents if they had ever listened to the governance and youth programs, both of which were referred to by their local program name and presenters in order to avoid confusion. Respondents could answer Yes/No/Don’t know to these questions. Responses were coded as “1” if they answered positively and “0” otherwise.

CHAD

“Have you ever listened to the radio program Dabalaye? It’s a governance program with presenters Mahamouth and Allamine.”

⁶ We tested lagged correlations for every variable in the dataset with similar results in both countries.

“Have you ever listened to the radio program Chabab Al Haye? It’s a youth program with presenters Djamila and Abdelfatha.”

NIGER

“Have you ever listened to the radio program Sada Zumunci? It’s a governance and religious affairs program with presenters Mairo and Abdou.”

“Have you ever listened to the radio program Gwadaben Matassa? It’s a youth program with presenters Aichou and Moustapha.”

If the response was positive, the survey instrument prompted enumerators to ask interviewees questions about the frequency with which they listened to the specific program, whether they liked it and trusted its content, if others had spoken to them about the content of the radio program, and whether they listen to it by themselves or together with other people.

Patterns of self-reported radio listenership

In order to evaluate the effect of P-DEV II radio programming, it is necessary to establish *who* listened to the programs and *when* they listened over the course of the study. This information allows us to more precisely compare outcomes before and after exposure to the radio programs. We found that the patterns of listenership for the youth and governance programs were fairly similar, particularly in Niger. In Chad, 36% of the sample listened to the local governance program, and 25% listened to the youth program. There is substantial overlap at the individual level, where 62% of the sample listened to neither program and 23% listened to both, leaving only 15% remaining of the total sample that listened to one program and not the other. In Niger, 63% of the sample listened to the governance program and 62% listened to the youth program. Unlike in Chad, more respondents listened to both programs (55%) than listened to neither (30%), while a consistent 15% listened to one and not the other.

Given the overlap in listenership, we combined listenership of the youth and governance programs to form one indicator of radio listenership, such that respondents may have listened to *either* or *both* of the radio programs in order to be coded as listeners. Coded in this way, we find that 37% of the sample reported to have listened to either program in Chad and 70% in Niger. Table 3 shows the composition of listenership as it varies between waves of data collection.

Table 3. P-DEV II Radio Listenership in Chad and Niger

	Chad			Niger		
	Wave 1	Wave 2	Δ	Wave 1	Wave 2	Δ
Governance Radio	32.08	39.86	7.78	55.00	71.65	16.65
Youth Radio	20.38	29.10	8.72	52.19	71.34	19.15
Any Program	32.95	41.36	8.41	61.99	77.57	15.58

For both countries and both programs, there is a clear increase in listenership during the few months between waves 1 and 2. The difference is particularly notable in Niger, where listenership increased 17% and 19% for the governance and youth programs respectively. Indeed, by wave 2, there were nearly the same numbers of listeners for the youth program as there were for the governance program. The pattern is similar in Chad, though baseline listenership and differences are lower than in Niger. Although approximately 10% more respondents in Chad report to have listened to the governance program than the youth program, the rate of change (between 8-9%) was very similar.

However, these aggregate figures do not capture the dynamics of listenership. From Table 3, it is not clear how many of the listeners from wave 2 started to listen to the program between waves relative to the proportion of listeners who maintained listenership in both waves. Similarly, the table does not reveal how many individuals began listening in wave 1 and then stopped listening by wave 2. The dynamics of listenership are important because it is possible that respondents who stop listening will have different characteristics than respondents who maintained listenership. We would expect the clearest program effects among individuals who report no listenership in wave 1 and then report listening by wave 2 because we can hold personal characteristics constant and isolate the effect of radio listenership. Accounting for the dynamics of radio listenership and taking advantage of the panel structure of our data, we present a typology of P-DEV II radio listenership patterns in Table 4.

Table 4. Types of radio listeners

Wave 1	Wave 2	Type
Yes	Yes	Always listeners
No	Yes	Tune in
Yes	No	Tune out
No	No	Never listeners

Respondents who listen in both waves are called “Always Listeners,” and respondents who do not listen in either wave are “Never Listeners.” Respondents who report to have listened in wave 2 only are called “Tune Ins” because they tuned in to P-DEV II radio programming between waves. Their counterparts who reported to have listened in wave 1 only are called “Tune Outs” because they claim to have stopped listening to P-DEV II radio programming during the period between waves. In Table 5, we report the distributions of these four groups.

Table 5. P-DEV II Radio Listenership in Chad and Niger by Type of Listener

	Chad			Niger		
	Governance Radio	Youth Radio	Any Program	Governance Radio	Youth Radio	Any Program
Always listeners	20.33	11.72	21.14	46.56	44.38	53.58
Tune in	19.85	17.70	20.23	25.31	27.19	23.99
Tune out	11.82	8.61	11.82	8.43	7.81	8.41
Never listeners	47.99	61.96	46.82	19.69	20.63	14.02

To some extent, this breakdown explains why overall listenership is lower in Chad than in Niger: the former has far fewer *Always Listeners*, fewer *Tune Ins*, and more *Tune Outs*. In Niger, only 14% of the sample reports zero exposure to either radio program, in contrast with nearly half of the Chad sample in the *Never Listen* group. The least populated group for both countries is the *Tune Out* group, representing individuals who stop listening between waves. Meanwhile, between a fifth and a quarter of all respondents in both countries started listening after wave I data was collected.

Implementation of the Encouragement Design

Upon completion of the first wave of interviews, enumerators handed a postcard to a randomly selected portion of respondents in each country encouraging them to listen to P-DEV II radio programming. The “encouragement” postcard provided information on when the program was aired and the radio station in which it was broadcasted. These respondents also received three follow up reminders via text message on February 17, February 25, and May 27, 2014. The EAS Team conducted a total of 750 interviews with youth (aged 15-30) per country, of which 525 received the encouragements to listen to P-DEV II radio programming and 225 received no such encouragement.

As mentioned above, the expectation of the “encouragement” design was that those randomly assigned to receive the postcards and text message reminders would be more likely to report listening to the youth and governance radio programs than those who did not receive them. Assuming reasonable compliance with the encouragement, it is possible to estimate the impact of the radio programming among “compliers” with the encouragement, that is, those who would not have listened in the absence of the additional information provided by the postcards and text messages. Given that the first wave of data collection occurred during September through November 2013, a time-lag of approximately four to six weeks was expected for the encouragement to exert its effect on radio listenership. Table 6 presents the effect of the postcard and text message encouragements on rates of radio listenership in Chad and Niger.

Table 6. Wave 2 radio listenership (%)

	Chad		Niger	
	Non-encouraged	Encourage	Non-encouraged	Encouraged
Governance	39.69	39.94	72.63	71.24
Youth	31.01	28.29	71.58	71.24
Any Program	41.22	41.42	77.89	77.43

The results show that the encouragement was unsuccessful in increasing radio listenership in either country. In both Chad and Niger, reported rates of radio listenership in wave 2 were virtually identical for the non-encouraged and encouraged groups. Therefore, we conclude that the encouragement postcard and follow up text message reminders failed to exert effects on the propensity of respondents to listen to either of P-DEV II’s radio programs.

For this reason, the field experimental data cannot be used to estimate the causal effect of radio listenership among compliers with the encouragement. The main analysis will therefore focus on estimating causal effects by examining patterns of change among individuals who report having “tuned in” or “tuned out” to the radio programs over time, and those who “always” or “never” listened to them during the period of the study.

The failure of the encouragement design is likely due to the lag between the first and second waves of data collection, which was expected to be roughly 2 to 3 months, and ended up being 7 to 8 months.

Frequency of radio listenership

In addition to evaluating the effect of P-DEV II radio programming by type of listeners, it is possible to assess the impact of the governance and youth programs based on frequency or intensity of exposure to their broadcasts. Frequency of radio listenership was measured using self-reported accounts (asked in both waves of the survey) of how often respondents listen to the radio programs. For each radio show, the survey items asked “How many times a month would you say you listen to [PROGRAM]?” This question was asked exclusively to those who answered positively to the radio listenership question for each program. Respondents could answer “less than once a month,” “once a month,” “once a week,” and “several times a week.” The results for each program are shown in tables 7A (Governance) and 7B (Youth).

Table 7A. Frequency of P-DEV II Radio Listenership (Governance Program)

	Chad		Niger	
	Wave 1	Wave 2	Wave 1	Wave 2
Less than once a month	0.00	1.79	0.57	0.87
Once a month	3.73	8.93	5.68	4.35
Once a week	60.45	58.33	36.93	39.57
Several times a week	35.82	30.95	56.82	55.22

Table 7B. Frequency of P-DEV II Radio Listenership (Youth Program)

	Chad		Niger	
	Wave 1	Wave 2	Wave 1	Wave 2
Less than once a month	0.00	1.65	0.61	2.25
Once a month	4.65	9.92	7.36	5.41
Once a week	60.47	61.16	35.58	40.09
Several times a week	34.88	27.27	56.44	52.25

The results exhibit similar patterns of frequency of radio listenership across countries and over time. In both Chad and Niger, roughly 90% (or more) of listeners report tuning in to the governance and youth broadcasts at least on a weekly basis. Niger has more frequent listeners with 52-56% of respondents who report listening several times per week compared to about 30% in Chad. Less than 10% of respondents listen to the radio programs infrequently

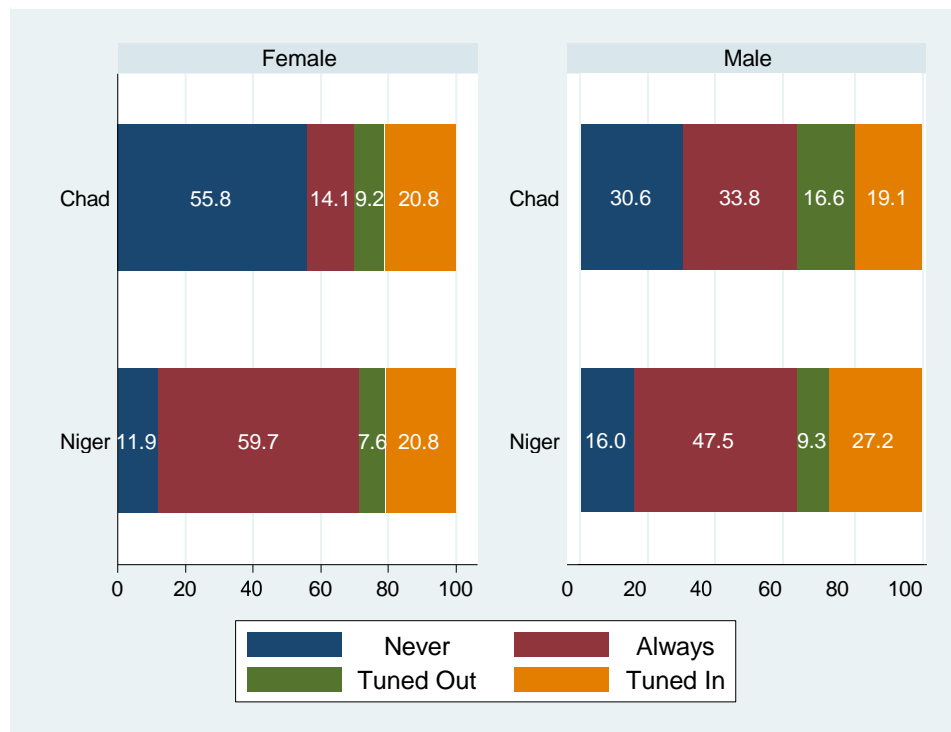
(once a month or less than once a month). This variation in patterns of exposure to P-DEV II radio programming will allow us to estimate the impact of listenership frequency on goal-level indices.

Demographic profiles of P-DEV II radio listeners in Chad and Niger

This section presents a demographic profile of P-DEV II radio listeners in Chad and Niger. We use demographic data on gender, age, education, religiosity, and socioeconomic status to distinguish between the kinds of respondents who are in each category of listenership (*Always Listeners, Never Listeners, Tune-Ins, and Tune-Outs*) in each country. This information is presented graphically by demographic indicator and type of listener.

Figures 1 through 3 suggest there are some differences in types of listeners as they relate to gender, age, and education. Figure 1 shows that in Chad men are more likely to be *Always Listeners* and *Tune Outs* and women are more likely to be *Never Listeners*, whereas *Tune Ins* are equally split. In Niger, women are more likely to be *Always Listeners* and men are more likely to be *Never Listeners* and *Tune Ins*.

Figure 1. Listenership by Sex



To present a demographic profile of listenership by age, we subdivide our sample of respondents in three age groups: 15-17, 18-22, and 22-30 years old. All three categories are considered “youth” as defined by USAID and the P-DEV II program, and they comprise the target population for radio programming. As shown in Figure 2, these different age groups do not reflect distinct patterns of listenership within each country, although there

are some noticeable differences between countries (Always Listeners and Tune Ins tend to be younger in Niger).

Figure 2. Listenership by Age Group

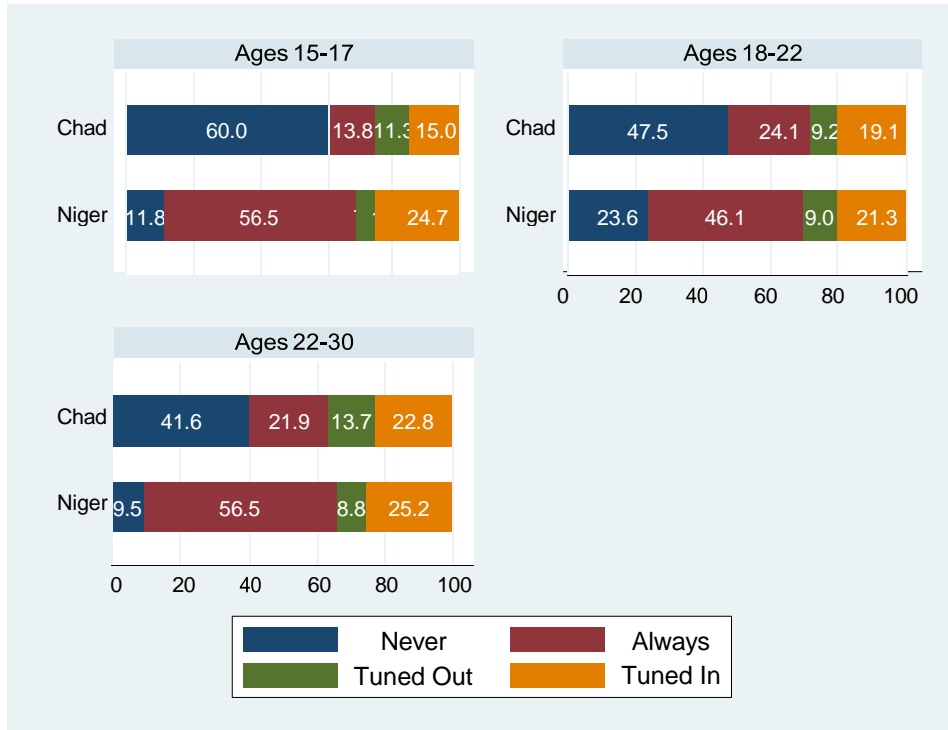
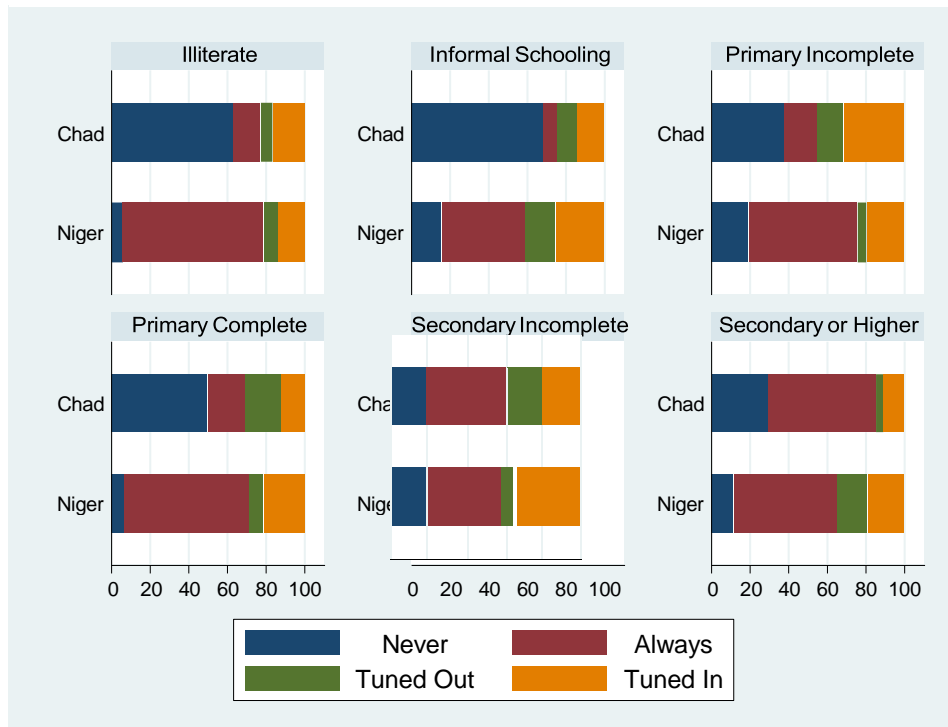


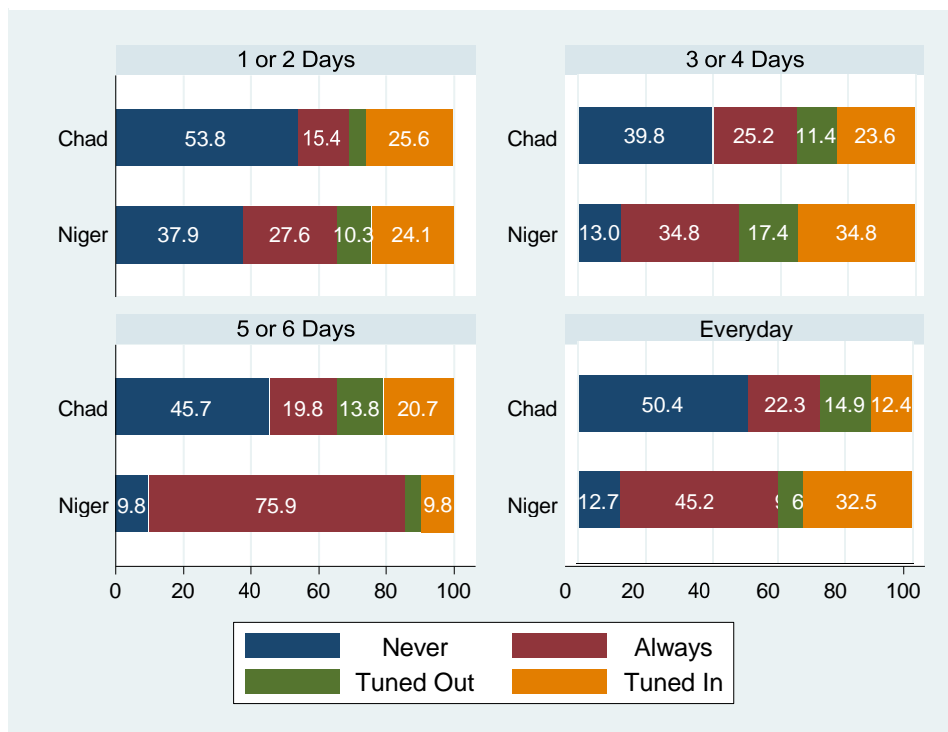
Figure 3. Listenership by Education



This is not the case for educational background, for which the listenership profile varies greatly between countries. According to Figure 3, Never Listeners are the least educated group in Chad but the most educated group in Niger. Always Listeners in Niger are the least educated group, while they have higher levels of education in Chad. The Tune Outs in Niger are a particularly interesting group for its representation of extremes. This group has a very high number of illiterate respondents as well as the highest number of highly educated respondents.

The patterns of listenership also diverge in terms of religiosity. For the purposes of this report, religiosity is measured in terms of religious service attendance. Those who attend religious services every day are considered to be highly religious, and those who attend only one or two days a week are considered least religious. By this measure, there appear to be noticeable differences between countries (Figure 4). For example, the *Tune In* group is the least religious group in Chad but the most religious group in Niger. In Chad, 22.7% of this group only attends religious services for one or two days a week, but this group has the highest rate of attendance in Niger (66.2% report daily attendance of religious services). Similarly, nearly all *Always Listeners* in Niger (90.7%) attend services at least five days a week, but only 54% of the *Always* group in Chad attends with such high frequency. Overall, all types of listeners in Chad tend to reflect similar levels of religiosity, such that no listenership group contains a very high proportion of highly religious or unreligious respondents.

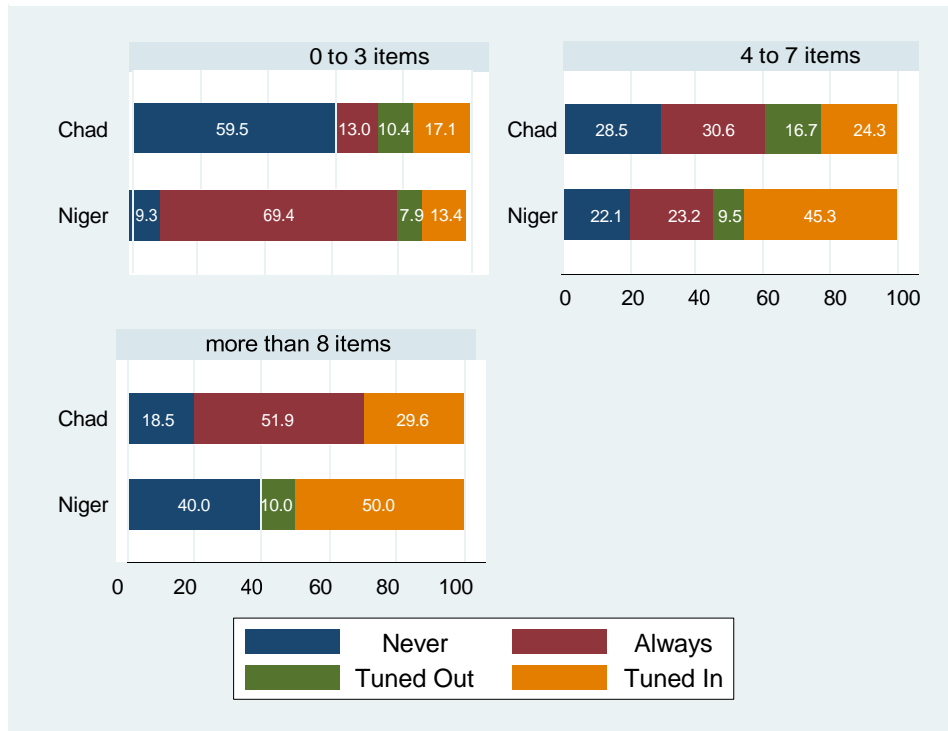
Figure 4. Listenership by Religiosity



In Figure 5, we present the differences between listeners in terms of socioeconomic status. For this report, socioeconomic status is measured through an index of household items that the respondent may or may not have in their home. The more items the respondent has

at home, the higher their socio-economic status. Again, there are substantial differences between countries. In Chad, the *Always Listeners* are the wealthiest group, and the *Never Listeners* are the poorest. Meanwhile in Niger, the *Never Listeners* are the wealthiest, and the *Always Listeners* are the poorest.

Figure 5. Listenership by Socioeconomic Status



In summary, the profile of listenership depends on both demographic characteristics and on country context. For some variables, such as gender and age, there are few discernable differences at all between different types of listeners in both countries. However, for other variables such as education, religiosity, and socio-economic status, the country context can completely reverse the listenership profile. In Niger, consistent listenership is associated with higher religiosity, lower levels of education, and a lower socio-economic status. The trend is generally the opposite in Chad, where more consistent listenership is associated with higher education and higher socioeconomic status.

THE IMPACT OF P DEV II RADIO LISTENERSHIP ON PROGRAM GOALS

This section presents an analysis of P-DEV II goals as they vary according to exposure to the radio component of the program. P-DEV II goals are operationalized according to various indicators that identify the main components of the program’s strategic objectives: social cohesion, resilience against violent extremism, and youth outlook. Our analyses use the panel data for estimating the effects of P-DEV II radio listenership by examining patterns of change among individuals who report having listened to either of the governance or youth radio programs during the period of the study.

Categorical comparisons

Taking advantage of the dynamic patterns of radio listenership described in Tables 4 and 5, and of the panel structure of the data, our main analysis is based on paired comparisons of types of listeners. Specifically, we estimate differences in goal-level indicators between: 1) *Always Listeners* and *Never Listeners*, 2) *Tune-Ins* and *Never Listeners*, and 3) *Tune-Outs* and *Always Listeners*. The first comparison is a straightforward test of P-DEV II listenership vs. non-listenership. The second and third comparisons are counterfactuals in the sense that the two groups have the same baseline value in terms of radio listenership but a different wave 2 value. We present the results of statistical models to determine whether or not there are over time differences between types of respondents and their reference group.

Table 8. Types of Listeners and Reference Group

Group/ Reference group		P-DEV II Radio listenership	
		Wave 1	Wave 2
1)	Always Listeners	Yes	Yes
	Never Listeners	No	No
2)	Tune Ins	No	Yes
	Never Listeners	No	No
3)	Tune Out	Yes	No
	Always Listeners	Yes	Yes

The statistical procedure for this analysis involves regressing change in goal-level indicators on dichotomous variables capturing the types of listenership described in Table 8 (*Always Listeners*, *Tune Ins*, and *Tune Outs*). In the tables below, we report the average effects of being an *Always Listener* (relative to a *Never Listener*), a *Tune In* (relative to a *Never Listener*), and a *Tune Out* (relative to an *Always Listener*) and the level of statistical significance in terms of p-values. The reported level of statistical significance indicates our confidence that these differences are systematic and not due to random chance.⁷ In order to present the results in a more visually intuitive way, we also graph the “probability of change” by type of listener (relative to their reference group) in cases where we see statistical significance and a sizable effect. These graphs plot the probability of improvement (positive change) among respondents exposed to P-DEV II radio programming for variables related to social cohesion, resilience to violent extremism, and youth outlook.

The demographic differences presented in the previous section are important to take into account when analyzing the impact of listenership on goal-level indicators because differing effects of the radio programs may be attributed to different listenership profiles in each country. Therefore, we analyze the impact of P-DEV radio listenership on social cohesion, resilience to violent extremism, and youth outlook for each country separately, and adjust

⁷ For example, a p-value of 0.10, our maximum level of uncertainty, indicates that differences found between types of radio listeners could have come about by chance (or through random sampling error) only 10% of the time if there were no true or systematic differences between them.

for age, gender, education, religious attendance, employment, and a household item index to account for material well-being.⁸

Frequency of radio listenership

In the second part of the analysis, we estimate the impact of frequency of exposure to P-DEV II radio programming on social cohesion, resilience to violent extremism, and youth outlook. Here, the statistical procedure involves regressing change in goal-level indicators on a continuous indicator of frequency of radio listenership, adjusting for age, gender, education, religious attendance, employment, and material well-being. The tables below report the average effects of wave I listenership frequency and of over time change in listenership frequency, with their associated level of statistical significance.

Gender

Finally, all goal-level indicators were tested for gender differences. To estimate gender differences, we interacted an indication of radio listenership with a dichotomous indicator for women, adjusting for wave I listenership, age, education, religious attendance, employment, and material well-being. Where the effects of P-DEV II radio programming for women diverge significantly from those for men, such effects are noted.

A. GOAL I: SOCIAL COHESION

Social cohesion is a broad concept that is measured through three separate indicators: 1) diversity of networks; 2) interpersonal and institutional trust; and 3) social and political inclusiveness in the community. Tables 9A through 13B present the results for variables related to social cohesion.

For the first indicator, network diversity, we measure the frequency with which respondents report talking to people from outside of their community or social background. We coded these variables so that a higher value indicates an increase in the number of days per week that a respondent communicates with people from different communities, religions, and ethnic groups. Results are shown in Tables 9A (Chad) and 9B (Niger). We observe statistically significant effects in Chad only.

⁸ In addition, all model specifications include commune-level fixed effects (dichotomous indicators) to account for variation in global characteristics and demographic composition of target zones.

Table 9A. Network Diversity (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Talk to people from other communities	-0.131 [0.349]	-0.233 [0.381]	-0.004 [0.361]	-0.017 [0.061]	-0.004 [0.041]
Talk to people from other religions	0.359 [0.225]	0.258 [0.243]	-0.191 [0.254]	0.068 [0.043]	0.049 [0.033]
Talk to people from other ethnicity	0.687** [0.256]	0.645* [0.255]	-0.691* [0.351]	0.107** [0.036]	0.098** [0.032]

+ .10; * 0.05; ** 0.01; *** 0.001

In Chad, the results indicate no impact of radio listenership on talking to people from other communities or other religions, but there is a consistent and significant effect on network diversity in terms of ethnicity. Always Listeners and Tune Ins, compared to Never Listeners, show a significant increase in talking to people from other ethnicities, whereas as those who Tuned Out of P-DEV II radio programming decreased their contact with other ethnic groups, relative to Always Listeners. The effect of listenership frequency suggests that this impact of radio programming is consistent, as those who report higher exposure tend to talk to people from other ethnicity significantly more than those reporting lower exposure.

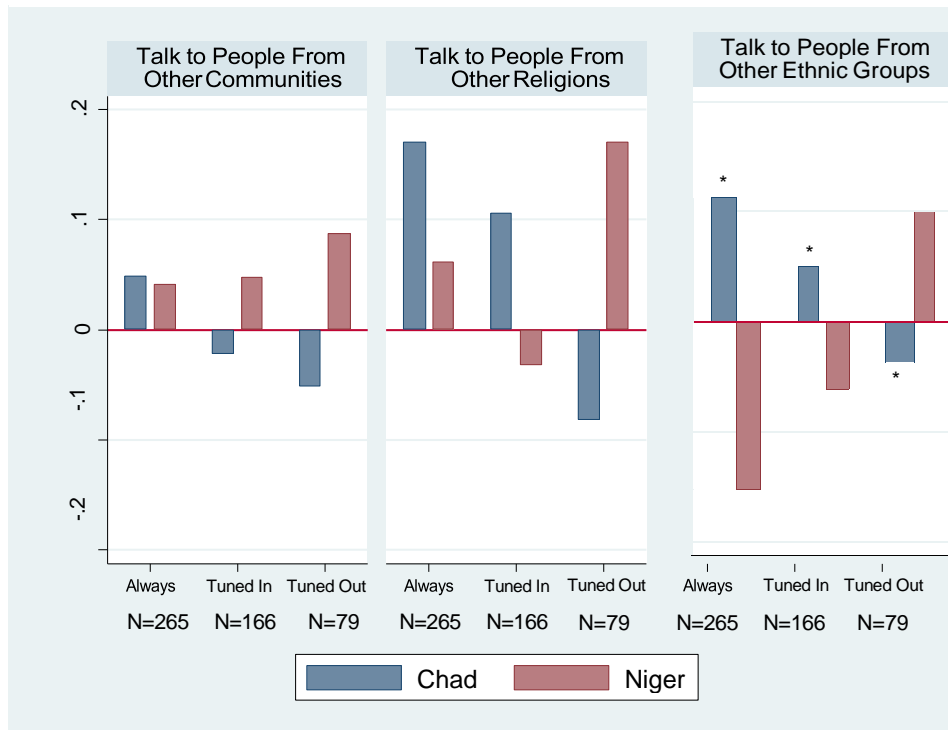
In Niger, the results fail to reach statistical significance, meaning there is no impact of radio listenership on network diversity. In other words, the differences between types of listeners reported in Table 9B are statistically indistinguishable from zero. Moreover, frequency of listenership had no impact on network diversity among Nigeriens. In Figure 6, we summarize graphically the results of the impact of P-DEV II radio listenership on network diversity in terms of probability of change, with stars above the bar graph categories that are statistically significant from earlier tables.

Table 9B. Network Diversity (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Talk to people from other communities	0.210 [0.428]	0.389 [0.416]	0.163 [0.515]	0.019 [0.063]	0.022 [0.054]
Talk to people from other religions	-0.166 [0.648]	-0.513 [0.567]	-0.007 [0.514]	0.050 [0.079]	0.001 [0.058]
Talk to people from other ethnicity	-0.087 [0.516]	-0.262 [0.408]	-0.030 [0.601]	0.060 [0.081]	0.006 [0.052]

+ .10; * 0.05; ** 0.01; *** 0.001

Figure 6. Network Diversity



The second component of social cohesion, trust, is conceptualized and measured in two different ways. On the one hand, there is interpersonal or social trust, that is, the amount of trust that individuals feel towards their neighbors and their community. On the other hand, there is institutional trust, or the trust that individuals place in specific social and political institutions. The survey instrument measured interpersonal trust by asking whether or not it is naïve to trust other people. This variable is coded so that a higher value indicates that respondents are less likely to agree with statement: “It is naïve to trust other people.” Institutional trust was measured through a battery of items on respondents’ level of trust for a number of political and religious institutions (i.e., the local government, the central government, religious figures, NGOs, and the police). Taken together, these indicators are intended to approximate the general level of trust that respondents have towards others in their communities, as well as social and political institutions. We find mixed results with quite different patterns in Chad and Niger.

The results in Table 10A show that P-DEV II radio listenership in Chad had a slight negative effect on interpersonal trust, but a positive impact on some indicators of institutional trust. Frequent Chadian listeners display lower interpersonal trust than those with less exposure to the radio programs. However, we found no significant differences in interpersonal trust among different types of listeners. The impact of P-DEV I radio listenership on institutional trust in Chad is decidedly mixed. *Always Listeners* are no different from *Never Listeners* on any indicator of institutional trust, but *Tune Ins* report significant positive increases in trust in local government, in the central government, and in religious leaders compared to *Never Listeners*. In addition, *Tune Outs* display significantly less trust in religious leaders compared to *Always Listeners*. Finally, frequent exposure to P-DEV II radio

had a positive and significant effect on trust in the central government and trust in religious leaders.

Table 10A. Interpersonal and Institutional Trust (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Interpersonal trust	-0.146 [0.172]	-0.234 [0.157]	0.124 [0.179]	-0.034 [0.027]	-0.044+ [0.024]
Trust in local gov't	0.024 [0.103]	0.163** [0.063]	-0.154 [0.122]	-0.001 [0.023]	0.018 [0.013]
Trust in central gov't	0.006 [0.114]	0.177* [0.082]	-0.108 [0.098]	0.008 [0.023]	0.041*** [0.012]
Trust in religious leaders	0.143 [0.090]	0.197** [0.071]	-0.218** [0.074]	0.023 [0.020]	0.041*** [0.012]
Trust in NGOs	0.025 [0.091]	0.119 [0.078]	-0.064 [0.101]	0.003 [0.025]	0.019 [0.015]
Trust in police	-0.164 [0.126]	-0.004 [0.151]	0.03 [0.095]	-0.026 [0.021]	0.005 [0.017]

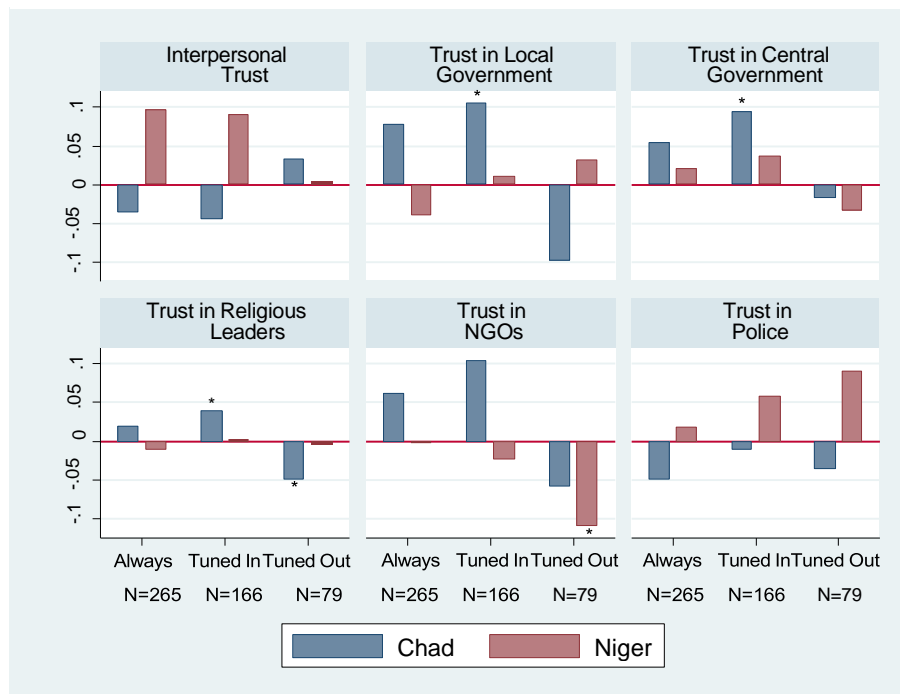
+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table 10B. Interpersonal and Institutional Trust (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Interpersonal trust	0.047 [0.187]	0.055 [0.167]	0.144 [0.190]	0.021 [0.033]	-0.004 [0.019]
Trust in local gov't	0.253* [0.124]	0.073 [0.136]	-0.183 [0.119]	0.021 [0.015]	0.021 [0.014]
Trust in central gov't	0.11 [0.117]	0.035 [0.125]	-0.14 [0.130]	0.008 [0.015]	0.010 [0.013]
Trust in religious leaders	0.108+ [0.065]	-0.039 [0.104]	-0.102 [0.086]	0.010 [0.009]	0.004 [0.012]
Trust in NGOs	0.062 [0.079]	-0.096 [0.102]	-0.219+ [0.132]	0.002 [0.010]	0.000 [0.011]
Trust in police	-0.059 [0.107]	-0.04 [0.114]	-0.055 [0.157]	-0.032* [0.014]	-0.011 [0.013]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Figure 7



In Niger, the results from Table 10B suggest that P-DEV II radio programming had no discernible impact on interpersonal trust. Regarding institutional trust, there are some significant yet inconsistent effects on trust in local government, trust in religious leaders, trust in NGOs, and trust in the police. *Always Listeners* in Niger became significantly more trusting of local government and religious leaders compared to *Never Listeners*. *Tune Outs* also report becoming significantly less trusting of NGOs compared to *Always Listeners*. It is important to note that Nigeriens who stopped listening to P-DEV II radio programming are consistently less trusting of local and central government, religious leaders, NGOs, and the police, although these effects are not statistically significant. Also, frequency of listenership in wave I has a significant negative effect on trust in the police.

Regarding gender differences, P-DEV II radio listenership had some significant negative effects on institutional trust among women in both counties. In Chad, radio programming negatively impacted women’s trust in religious leaders and NGOs, while in Niger it negatively impacted women’s in trust in the central government and in trust in the police.

Social and political inclusiveness are the final components of social cohesion. Indicators in this dimension relate to perceptions of inclusiveness in the community for decision-making, satisfaction with decisions, and collective action. First, respondents were asked about who they believe participates in making important decisions in their communities: ordinary people, women, youth, those from the respondent’s ethnic group, and people from outside the respondent’s ethnic group. We find very different patterns in Chad and Niger.

Table 11A shows the results for Chad, where radio listenership had little effect in changing perceptions of who makes decisions in the community. However, a few results stand out. *Always Listeners* and *Tune Ins* are significantly more likely to believe that the decision-

making process is ethnically diverse, both relative to *Never Listeners*. We also found that frequent exposure to P- DEV II radio programming increased the perception that youth and other ethnic groups participate in community decision making.

Table IIA. Community decision making: who *makes* decisions? (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Ordinary people	-0.056 [0.102]	0.013 [0.104]	-0.016 [0.100]	0.005 [0.017]	0.017 [0.014]
Youth	0.083 [0.089]	0.03 [0.076]	-0.099 [0.094]	0.023+ [0.013]	0.020+ [0.010]
Women	-0.074 [0.099]	0.097 [0.119]	0.045 [0.092]	-0.008 [0.016]	0.006 [0.015]
My ethnic group	-0.1 [0.111]	0.01 [0.096]	0.017 [0.124]	-0.004 [0.022]	0.009 [0.015]
Other ethnic groups	0.171* [0.082]	0.250** [0.078]	-0.127 [0.114]	0.031* [0.014]	0.043*** [0.011]

+ .10; * 0.05; ** 0.01; *** 0.001

In Niger (Table IIB), we find a significant positive effect among *Always Listeners* relative to *Never Listeners* on perceptions about ordinary people making decisions, and a significant negative effect among *Tune Outs* compared to *Always Listeners* on perceptions about ordinary people and youth making decisions in the community. Finally, frequent exposure to P-DEV II radio programming in wave I negatively impacts change in perceptions that women and the respondents' own ethnic groups participates in making community decisions.

Table IIB. Community decision-making: who *makes* decisions? (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Ordinary people	0.235+ [0.122]	0.04 [0.101]	-0.373* [0.179]	-0.015 [0.024]	0.007 [0.016]
Youth	0.014 [0.125]	0.085 [0.113]	-0.265+ [0.152]	-0.002 [0.018]	0.013 [0.014]
Women	-0.145 [0.121]	-0.012 [0.109]	0.083 [0.159]	-0.042* [0.020]	-0.011 [0.014]
My ethnic group	-0.06 [0.140]	-0.065 [0.117]	-0.153 [0.204]	-0.034+ [0.020]	0.004 [0.016]
Other ethnic groups	-0.169 [0.143]	-0.127 [0.117]	-0.089 [0.189]	-0.034 [0.022]	0.002 [0.017]

+ .10; * 0.05; ** 0.01; *** 0.001

Tables 12A and 12B present the results of a slightly different question: one which asks the respondent if the same groups asked in the previous question *should* play a role in community decision-making processes. P-DEV II radio programming had, for the most part, negative effects in changing perceptions of who should make decisions in the community across both countries. In Chad (Table 12A), for instance, *Always Listeners* and *Tune Ins* are less likely to believe women should make decisions in the community relative to *Never Listeners*, with frequency of exposure reinforcing these perceptions. In Niger (Table 12B), *Always Listeners* are less likely to believe youth should make important decision, belief strengthened by frequency of exposure to radio programming.

P DEV II radio listenership had some negative effects among women’s beliefs about who should make decisions in the community. In Chad, radio programming has a negative impact on women’s belief that their own ethnic group should make decisions in the community, and in Niger it negatively impacted women’s belief that youth and other ethnic groups should make decisions.

Table 12A. Community decision-making: who should make decisions? (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Ordinary people	-0.098 [0.074]	-0.029 [0.089]	-0.228* [0.115]	-0.014 [0.014]	0.013 [0.014]
Youth	-0.136 [0.090]	-0.086 [0.095]	-0.143 [0.108]	-0.009 [0.015]	0.008 [0.012]
Women	-0.299* [0.122]	-0.172* [0.087]	0.076 [0.115]	-0.044* [0.019]	-0.020+ [0.011]
My ethnic group	-0.257* [0.108]	-0.096 [0.109]	-0.016 [0.105]	-0.044* [0.018]	-0.013 [0.015]
Other ethnic groups	-0.003 [0.109]	0.03 [0.092]	-0.086 [0.115]	-0.001 [0.017]	0.011 [0.011]

+ .10; * 0.05; ** 0.01; *** 0.001

Table 12B. Community decision-making: who should make decisions? (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Ordinary people	-0.062 [0.092]	0.068 [0.074]	0.071 [0.099]	-0.035* [0.016]	-0.011 [0.011]
Youth	-0.225+ [0.117]	-0.048 [0.090]	0.084 [0.136]	-0.039* [0.017]	-0.026* [0.013]
Women	-0.167 [0.134]	-0.03 [0.117]	0.139 [0.138]	-0.037* [0.019]	-0.020 [0.014]
My ethnic group	0.007 [0.140]	0.052 [0.138]	-0.062 [0.138]	-0.020 [0.021]	-0.002 [0.015]
Other ethnic groups	-0.05 [0.144]	0.05 [0.140]	-0.127 [0.188]	-0.019 [0.022]	-0.001 [0.017]

+ .10; * 0.05; ** 0.01; *** 0.001

The final indicators of inclusiveness are satisfaction with decisions in the community and political participation. Satisfaction with decisions was measured with the question: “Are you satisfied, neutral, or dissatisfied with the way decisions are made in your community?” responses were coded so that a higher value indicates more satisfaction. For political participation, we created an additive index of participation in six different activities: attending a council meeting, contacting an official, notifying authorities about a local problem, voting, involvement in community development activities, and participating in a peaceful protest. We observe positive effects in both countries, but especially in Chad.

The results shown in Table 13A indicate that in Chad, *Always Listeners* report an increase in participation compared to *Never Listeners*, while *Tune Outs* are less likely to be satisfied with decisions in their communities and to participate in politics relative to *Always Listeners*. In addition, frequent exposure to the programs increased both satisfaction with decisions and political participation.

Table 13A. Satisfaction with decisions and political participation (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Satisfaction w/ decisions	0.152 [0.157]	0.158 [0.131]	-0.242+ [0.141]	0.036 [0.028]	0.055** [0.018]
Political participation	0.088* [0.043]	0.059 [0.043]	-0.112*** [0.033]	0.016** [0.006]	0.017*** [0.004]

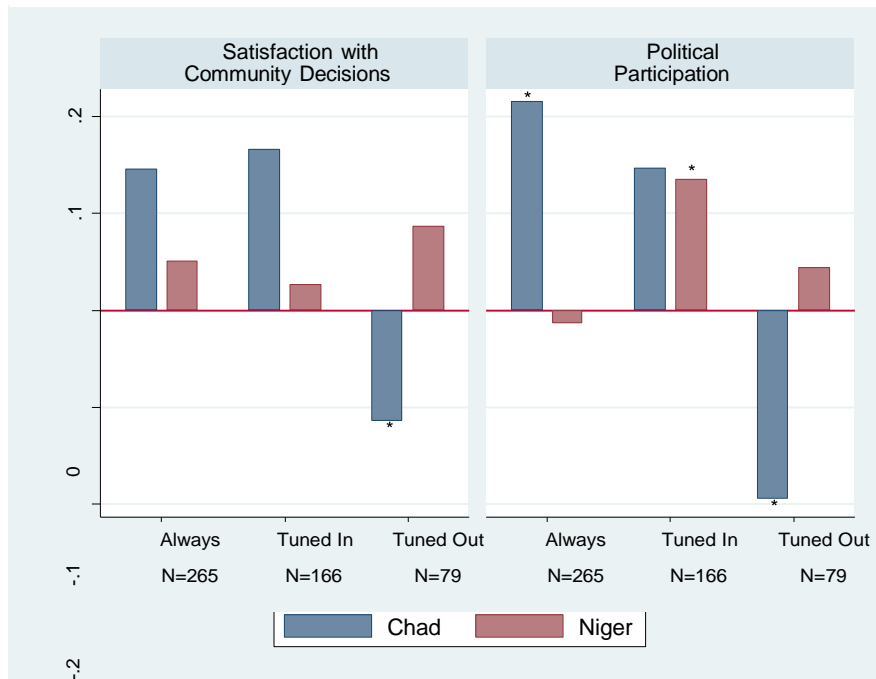
+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table 13B. Satisfaction with decisions and political participation (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Satisfaction w/ decisions	0.032 [0.169]	-0.037 [0.159]	0.013 [0.149]	-0.006 [0.023]	-0.007 [0.017]
Political participation	0.013 [0.058]	0.119** [0.042]	0.001 [0.070]	0.007 [0.010]	0.013* [0.006]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Figure 7



In Niger, radio listenership had no effect in changing satisfaction with decisions in the community, but it did have a mobilizing effect among *Tune Ins* who report an increase in political participation relative to *Never Listeners*. Frequent exposure to P-DEV II radio also increased political participation. Taken together, the results from Chad and Niger suggest that P- DEV II radio programming had a mobilizing effect among those who listen to the youth and/or governance programs.

Summary of findings for social cohesion indicators:

- In terms of network diversity, we find positive P-DEV II radio program effects on interaction with people from other ethnicities in Chad, whereas no statistically significant effects emerge in Niger.
- The effects on interpersonal and institutional trust are decidedly mixed for both countries. In Chad, we observe positive effects for Tune-Ins on trust in local and central government as well as in religious leaders, while the frequency of listenership has a positive effect on institutional trust, but a negative effect on interpersonal trust. In Niger, positive effects on trust in local government and in religious leaders accrue for Always Listeners, whereas the frequency of listenership in wave I has a negative effect on trust in the police.
- We observe strong positive P-DEV II radio program effects on the perception that other ethnic groups participate in decision-making in Chad. Both listenership and frequency of listenership have positive effects, with frequency of listenership also having a positive effect on the perception that youth are involved in decision-making. In Niger, by contrast, frequency of wave I listenership has a negative effect on the perception that women and the respondent’s own ethnic group are involved in decision-making.

- With respect to beliefs about who *should* make decisions in the community, negative effects are observed in the two countries. In Chad, both listenership and frequency of listenership decrease the support for women and for members of the own ethnic group to participate in community decision-making. In Niger, negative effects on support for youth participation accrue for Always Listeners and increase with frequency of listenership. Wave I frequency of listenership also has a negative effect on the belief that ordinary people and women should be involved in community decision-making.
- By contrast, we observe positive P-DEV II radio effects on political participation in both countries. Positive effects on political participation emerge for Always Listeners and with increasing frequency of listenership in Chad. In Niger, we see positive effects on political participation for Tune-Ins and with increased frequency of listenership.

B. GOAL 2: RESILIENCE TO VIOLENCE EXTREMISM

Tables 14A through 17B present the impact of P-DEV II radio programming on variables related to violent extremism. This concept is intended to assess the degree to which individuals are vulnerable to the appeals of extremist groups and willing to use violence. This is a fairly broad concept, containing indicators ranging from the individual's perceived ability to influence politics, their religious radicalism, and their overt approval of violence.

Political efficacy, or confidence in one's ability to influence and understand politics and public policy, is an important component of resilience against violence and extremism. Following the theory that extremism results from alienation from the established political order, highly efficacious individuals would be less likely to resort to violence or anti-politics in order to affect social and political change.

Here, we distinguish between *external* and *internal* political efficacy. We measure external efficacy with an index based on responses to three questions: 1) do you feel your opinions are respected; 2) do you feel your opinions are considered for decision-making; and 3) do you feel you have a say in what the government does. The second indicator of political efficacy is internal efficacy, or an individual's self-perceived ability to understand politics. We measure this concept through a question that asks respondents whether or not they feel well-prepared to participate in politics. The results in Tables 14A and 14B show consistent positive effects of P-DEV II radio listenership on external and internal efficacy in both Chad and Niger.

In both countries, *Always Listeners* and *Tune Ins* report an increase in external efficacy compared to *Never Listeners*. Additionally, the effect of radio listenership on external efficacy is stronger as frequency of listenership increases. Radio listenership also had a positive impact on internal efficacy among *Tune Ins* relative to *Never Listeners* in both countries. In Chad, frequency of exposure strengthened the effect on internal efficacy but not in Niger. Overall, these results suggest that radio listenership had a modest empowering effect among Chadian and Nigerien youth.

Table 14A. External and Internal Efficacy (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
External efficacy	0.339* [0.137]	0.256* [0.124]	-0.301 [0.202]	0.061* [0.025]	0.043+ [0.023]
Internal efficacy	0.209 [0.167]	0.357*** [0.106]	-0.127 [0.184]	0.031 [0.027]	0.039+ [0.021]

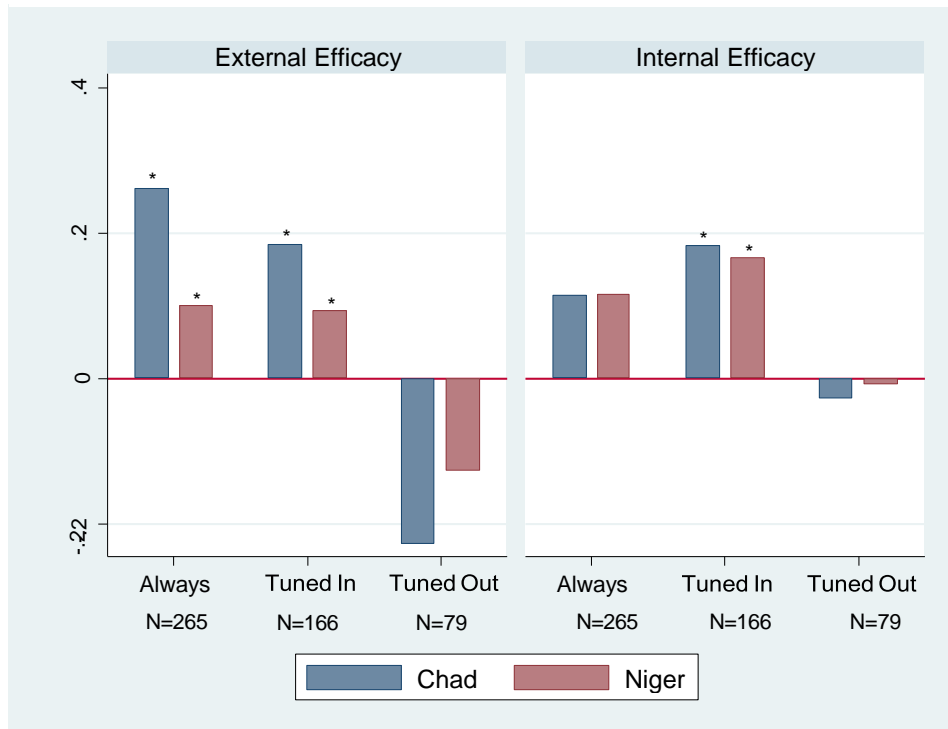
+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table 14B. External and Internal Efficacy (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
External efficacy	0.303* [0.154]	0.459** [0.163]	-0.140 [0.122]	0.003 [0.022]	0.025+ [0.015]
Internal efficacy	0.197 [0.144]	0.299* [0.148]	-0.147 [0.155]	0.006 [0.022]	0.018 [0.015]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Figure 8



Next, we assessed how P-DEV II radio listenership affected respondents' perceptions that ethnic and religious differences divide people in their communes. These variables are coded

such that higher values represent a *decrease* in respondents' perceived societal divisions between waves. The results are presented in Tables 15 A and 15B. We observe positive radio effects in Chad, whereas no significant effect is discernible in Niger.

Radio listenership had a positive impact in reducing perceived divisions in the community due to ethnic and religious differences in Chad. *Tune Ins*, relative to *Never Listeners*, were significantly less likely to report that ethnic and religious differences cause divisions, and the positive effect for *Always Listeners* is limited to perceived divisions based on religious differences. The effect of radio listenership is particularly strong among women, who report a significant decrease in perceptions of religious differences relative to men. In Niger, P-DEV II radio programming had no discernable effect on perceptions of religious and ethnic differences.

Table 15A. Perceived Ethnic and Religious Differences (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Ethnic diff. divide my community	0.047 [0.097]	0.223** [0.074]	0.072 [0.118]	0.018 [0.015]	0.019 [0.014]
Religious diff. divide my community	0.259** [0.083]	0.238** [0.083]	0.02 [0.095]	0.056*** [0.012]	0.028* [0.011]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table 15B. Perceived Ethnic and Religious Differences (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Ethnic diff. divide my community	-0.02 [0.102]	0.099 [0.104]	0.051 [0.132]	-0.008 [0.016]	0.007 [0.013]
Religious diff. divide my community	-0.022 [0.101]	0.118 [0.109]	0.069 [0.094]	-0.014 [0.017]	0.000 [0.011]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

The rest of this section reports on the impact of P-DEV II radio programming on respondents' views about violence and on extremist attitudes. We first assess the effect of P-DEV II radio listenership on two attitudes that might indicate disapproval of violence. One indicator relates to the effectiveness of violence as an effective strategy to solve problems and the other indicator measures the belief that violence in the name of religion is or is not justifiable. Variables were coded so that higher values represent a *disapproval* of violence. We present the results in Tables 16A and 16B. Again, we observe positive program effects in Chad and none in Niger.

We found that P-DEV II radio programming had a positive effect on decreasing attitudes toward violence in Chad. *Always Listeners* and *Tune Ins* registered significantly more disapproval of violence as a means to solve problems or to defend religion, relative to *Never Listeners*. In addition, frequency of exposure to the radio programs had a strong effect on disapproval of violence. In Niger, on the other hand, radio listenership had no overall impact on attitudes toward violence, but we did find an important gender effect. Nigerian women who reported listening to P-DEV II radio programs disapprove of violence as an effective way to solve problems significantly more than men. We found no significant differences between women and men in Chad.

Table 16A. Attitudes toward Violence (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Violence is not effective to solve problems	0.228+ [0.138]	0.355*** [0.102]	-0.063 [0.147]	0.042+ [0.025]	0.038* [0.018]
Use of violence is not justified to defend my religion	0.263* [0.106]	0.278* [0.112]	-0.118 [0.093]	0.056** [0.018]	0.043** [0.014]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table 16B. Attitudes toward Violence (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Violence is not effective to solve problems	-0.164 [0.123]	-0.016 [0.113]	0.222 [0.147]	-0.023 [0.017]	-0.017 [0.013]
Use of violence is not justified to defend my religion	0.026 [0.088]	0.002 [0.088]	-0.134 [0.132]	0.005 [0.017]	0.011 [0.011]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Next, we address how respondents' P-DEV II radio listening patterns they relate to religious extremism, which in this case refers to the specific use of Islam to justify anti-west attitudes and violent behavior. Respondents were asked to "Please tell [the enumerator] whether you agree or disagree with the following statements." The statements included, "Violence in the name of Islam can be justified," "The United States is at war against Islam, not terrorism," and "Al Qaeda's violent actions are permitted under Islamic law." Again, higher values represent a decrease in respondents' propensity for religious extremism. In the tables below, the text of the individual items has been adjusted to reflect this coding of the variables. The final item measures preferences for implementation of Sharia Law in their

countries. Respondents were asked to indicate which statement best represents their views: 1) “strict observance of the law precisely as it is written in the Qur’an,” 2) “moderate observance of the law, such that there is room for modern advancement,” and 3) “I do not support the implementation of Sharia law in my country.” The intention of this item is not to measure a propensity for violence directly, but rather to evaluate religious extremism, which, under certain conditions, may be linked to violence. We coded this item so that higher values represent opposition to strict observance of Sharia Law. The results in Tables 17A and 17B show decidedly mixed results in terms of the impact of PDEV II radio listenership on these items.

In Chad, *Always Listeners* and *Tune Ins*, compared to *Never Listeners* reported significantly lower agreement with the statement that violence can’t be justified in the name of Islam. That is, listeners appear to have become *more* “extreme” on this particular item. We also found that frequency of exposure strengthens this view. *Tune Outs*, on the other hand, report higher agreement with such a statement relative to *Always Listeners*. It is possible that these results do not reflect personal views, which would be a negative outcome for the program, but rather an awareness that some people can—and do—justify violence in the name of Islam among P-DEV II radio listeners. Frequent listeners also report lower agreement with the statement that the U.S. is at war against terrorism, not Islam. Regarding preferences for Sharia Law in Chad, the results show that *Tune Ins* report higher opposition to its strict observance than *Never Listeners*. In addition, the more frequently one listens to PDEV II radio programming, the more opposition to strict observance of Sharia Law increases.

Table 17A. Religious Extremism (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Violence in the name of Islam can’t be justified	-0.370*** [0.104]	-0.349** [0.114]	0.270* [0.106]	-0.068*** [0.017]	-0.053*** [0.014]
U.S. at war against terrorism, not	-0.182 [0.126]	-0.109 [0.127]	0.088 [0.126]	-0.040+ [0.021]	-0.037* [0.017]
Al-Q violent actions are not permitted under Islam	0.037 [0.110]	-0.083 [0.119]	-0.077 [0.101]	0.016 [0.019]	0.002 [0.014]
Opposes strict Sharia Law	-0.009 [0.077]	0.153+ [0.092]	-0.168 [0.116]	-0.004 [0.014]	0.032* [0.013]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

In Niger, *Tune Outs* report higher agreement with the statements that violence can’t be justified in the name of Islam and that the U.S. is at war against terrorism, not Islam. These are both findings counter to the intention of the programming. For the latter item, *Always Listeners* reported significantly lower agreement relative to *Never Listeners*. We also found a gender effect. Nigerien women who reported listening to P-DEV II radio programs agree

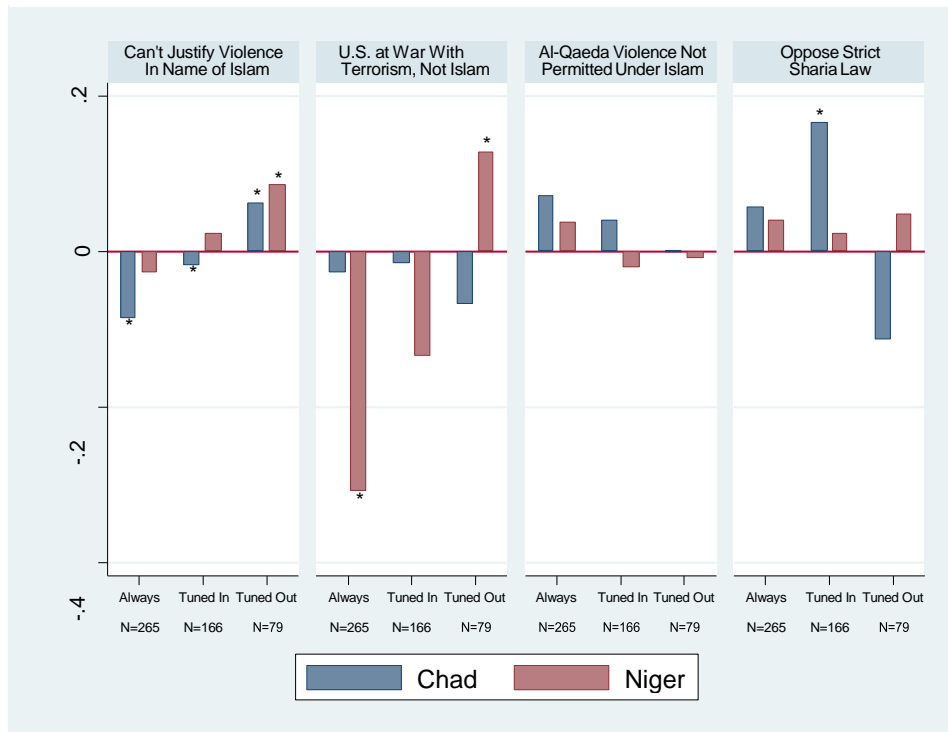
significantly more than men with the statement that Al Qaeda’s violent actions are not permitted under Islamic law. Finally, we found no impact of P-DEV II radio programming on preferences toward Sharia Law in Niger.

Table 17B. Religious Extremism (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Violence in the name of Islam can't be justified	0.098 [0.173]	0.134 [0.156]	0.284+ [0.167]	-0.008 [0.025]	-0.006 [0.018]
U.S. at war against terrorism, not	-0.531** [0.185]	0.008 [0.188]	0.363+ [0.205]	-0.088*** [0.027]	-0.018 [0.018]
Al-Q violent actions are not permitted under Islam	-0.128 [0.177]	-0.031 [0.150]	0.085 [0.190]	-0.010 [0.022]	0.007 [0.015]
Opposes strict Sharia Law	0.056 [0.118]	0.021 [0.097]	-0.04 [0.115]	0.013 [0.018]	-0.010 [0.012]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Figure 9



Summary of findings for resilience to violent extremism indicators:

- We observe positive P-DEV II radio program effects on external and internal efficacy

in both countries. Tune-Ins are the primary beneficiaries: they record increases in both internal and external efficacy in Chad and Niger. In both countries, positive effects on external efficacy emerge also for Always Listeners. Increased frequency of listenership strengthens these positive effects, especially in Chad.

- In Chad, we observe positive program effects on perceived divides in the community owing to ethnic and religious differences. Listenership and frequency of listenership reduce perceptions of divides based on religious affiliation. No effects are found in Niger.
- A similar pattern emerges with respect to attitudes towards violence, where we observe consistent positive program effects in Chad and no effects in Niger. Listening to P-DEV II radio programming decreases the perception of violence as an effective solution to problems and as an appropriate means to defend one's religion in Chad. Frequency of listenership strengthens these effects.
- The results with respect to religious extremism are mixed. In Chad, listenership and frequency of listenership increased agreement with the statement that violence in the name of Islam can be justified, whereas Tune-Ins became more likely to oppose the implementation of strict Sharia Law, an effect that is reinforced by frequent listenership. In Niger, Always Listeners became more likely to see the U.S. at war with Islam rather than with terrorism; frequent listenership strengthens this effect.

C. GOAL 3: YOUTH OUTLOOK

Tables 18A through 19B show the results for questions related to the individual and collective vision young people have of their futures. Because the sample was restricted to include only youth between the ages of 15 and 30, these indicators better reflect the perceptions and outlook of young people in selected target zones in Chad and Niger. *Youth Outlook* is operationalized in terms of general satisfaction with life, satisfaction with services, and interest in politics.

We first present the results for retrospective, current, and prospective life satisfaction, which we capture using a "ladder of life" scale (1-10). In both Chad and Niger, we find negative effects on life satisfaction, although with somewhat different patterns. Table 18A shows that P-DEV II radio listenership had a negative impact on life satisfaction in Chad. This effect was particularly strong for *Tune Ins* who became less optimistic about their future prospects relative to *Never Listeners*. Conversely, *Tune Outs* are more likely than *Always Listeners* to report higher retrospective life satisfaction. The results also suggest that frequent exposure to the radio programs had a negative effect on retrospective and current life satisfaction among both Chadian and Nigerien youth.

Table 18A. Life Satisfaction (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Life satisfaction: retrospective	-0.32 [0.276]	-0.084 [0.206]	0.441+ [0.254]	-0.110* [0.048]	-0.089** [0.029]
Life satisfaction: current	-0.339 [0.231]	-0.162 [0.176]	0.223 [0.249]	-0.087* [0.041]	-0.025 [0.027]
Life satisfaction: prospective	-0.318 [0.270]	-0.689** [0.259]	-0.084 [0.283]	-0.066 [0.053]	-0.043 [0.050]

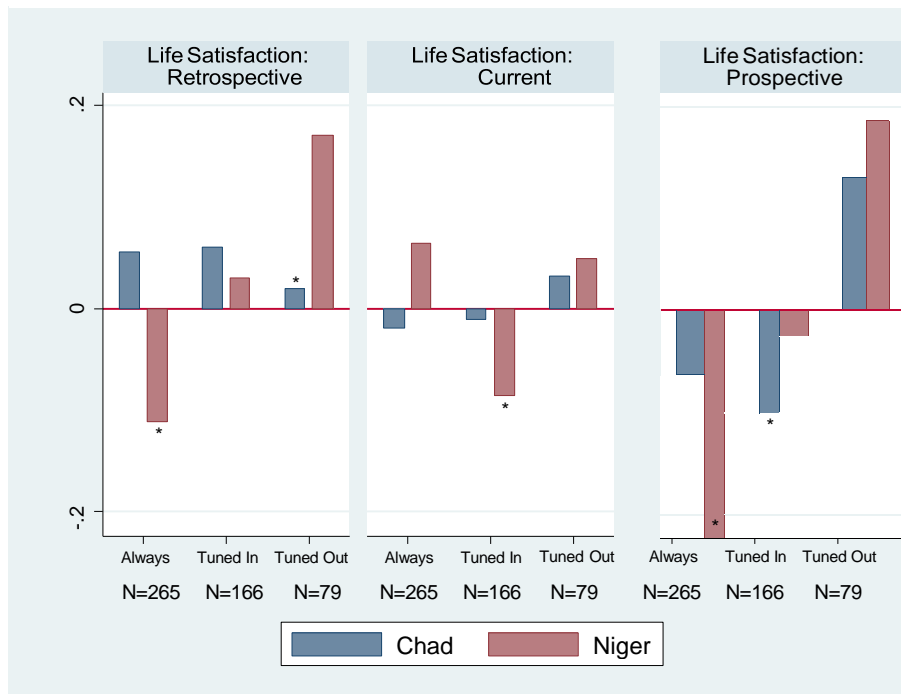
+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Table 18B. Life Satisfaction (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Life satisfaction: retrospective	-0.681+ [0.372]	-0.104 [0.326]	0.554 [0.416]	-0.067 [0.054]	-0.082* [0.034]
Life satisfaction: current	0.398 [0.339]	-0.416+ [0.219]	0.079 [0.348]	0.083 [0.056]	-0.049 [0.031]
Life satisfaction: prospective	-1.164** [0.418]	-0.240 [0.265]	0.766 [0.466]	-0.141+ [0.072]	-0.085* [0.043]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

Figure 10



We found that the impact of radio programming on life satisfaction was also negative in Niger. As shown in Table 18B, listenership had a negative effect on retrospective, current, and prospective assessments, with frequency of exposure reinforcing these patterns. *Always Listeners* show a decline in past and expected life satisfaction in the future and *Tune Ins* show a decline in current life satisfaction, both compared to *Never Listeners*.

The last set of indicators for Youth Outlook relate to satisfaction with public services and interest in politics. For satisfaction with services, we created an index measuring how respondents evaluate education services, health services, traditional forms of justice, and the courts. Political interest is measured by asking respondents whether they have very little interest, some interest, or a great deal of interest in: a) local community affairs, and b) in national politics and national affairs. We present the results in Tables 19A and 19B. While the record is mixed in Chad, we find no statistically significant effects in Niger.

Table 19A. Satisfaction with Services and Political Interest (CHAD)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Satisfaction with public services	-0.107* [0.049]	-0.040 [0.049]	0.095 [0.061]	-0.024** [0.008]	-0.017* [0.008]
Interested in local affairs	0.154 [0.125]	0.225* [0.113]	0.081 [0.161]	0.037 [0.024]	0.026 [0.020]
Interested in national affairs	0.034 [0.125]	-0.053 [0.109]	-0.068 [0.121]	-0.001 [0.023]	0.001 [0.017]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

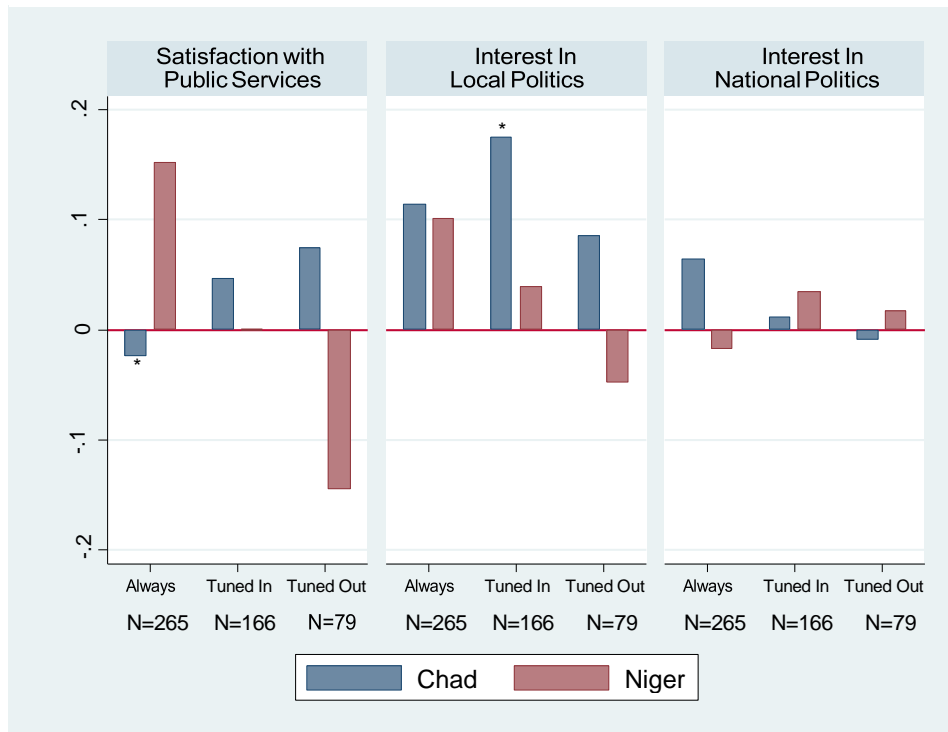
Table 19B. Satisfaction with Services and Political Interest (NIGER)

	Radio listenership			Frequency of Listenership	
	Always (Never)	Tune in (Never)	Tune out (Always)	Lagged Freq.	Δ Freq.
Satisfaction with public services	0.060 [0.058]	-0.036 [0.055]	-0.048 [0.064]	0.011 [0.011]	0.001 [0.007]
Interested in local affairs	0.013 [0.124]	0.076 [0.102]	0.107 [0.139]	0.003 [0.021]	-0.013 [0.013]
Interested in national affairs	-0.044 [0.124]	0.05 [0.102]	0.068 [0.144]	-0.001 [0.019]	-0.018 [0.012]

+ p<0.10; * p<0.05; ** p<0.01; *** p<0.001

In Chad, *Always Listeners* report a significant decrease in satisfaction with services compared to *Never Listeners*, with frequency of exposure to P-DEV II radio programming strengthening this effect. Interest in local affairs increased for *Tune Ins*, although we found no effect of radio listenership on interest in national affairs. Moreover, listenership frequency had no impact on political interest. Finally, the results from Table 19B show that P-DEV II radio programming had no discernable effect on satisfaction with public services or interest in political affairs in Niger.

Figure 11



Summary of findings for youth outlook indicators:

- The program effects on life satisfaction among youth are negative in both Chad and Niger. In Chad, frequency of listenership reduces retrospective and current life satisfaction whereas we observe a drop in prospective life satisfaction for Tune-Ins. In Niger, the negative effects are strongest on retrospective and prospective life satisfaction, with Always Listenership and frequency of listenership depressing satisfaction. For Tune-Ins we observe a decrease in current life satisfaction.
- We also observe negative program effects on satisfaction with public services, reinforced by increased frequency of listenership in Chad. On a more positive note, Tune-Ins report an increased interest in local affairs. No effects emerge in Niger.

EXPERIMENTAL EVIDENCE ON EXTREMIST ATTITUDES AND BEHAVIORAL ORIENTATIONS

For sensitive topics, such as support for violence and militant groups, our analysis incorporates unobtrusive measurement techniques that help reduce social desirability biases. In this section, we present the results of two *list experiments* measuring support for terrorist actions which may involve the deaths of civilians and willingness to join a group that carries out acts of violence, as well as two *endorsement experiments* measuring support for militant groups operating in the Sahel region.

A. LIST EXPERIMENTS

We employ two *list experiments* embedded in the survey to capture levels of support for violence. The experimental procedure is straightforward. Respondents are presented with a hypothetical scenario and asked to reveal only the *number of responses* they would support but not *which responses* they would support. Half of respondents in a target zone were randomly assigned to a “control group” to whom the survey enumerator lists only three [four] potential responses. Two of these potential responses are likely unobjectionable. The third item is designed to be more radical so that that most respondents do not necessarily respond affirmatively to all three control items. This is referred in the literature as a *ceiling item* or a *low- prevalence item* that minimizes design effects when comparing control and treatment groups. The other half of respondents in each zone were randomly assigned to a “treatment group” to which the survey enumerator lists the same three potential responses presented to the control group as well as a fourth, *sensitive* item. Because the groups are randomly assigned to treatment and control conditions, the difference between the treatment group’s average number of responses and the control group’s average number of responses (multiplied by 100) yields the percentage of the sample that supports the sensitive item.

List experiment #1: Attack on a Western Country’s Embassy

For the first list experiment, each respondent was presented with the following hypothetical scenario:

“Imagine that you hear on the radio that a Western newspaper has published offensive images of the Prophet Mohammed committing a crime. You could respond to this affront in many ways. I’m going to read you a list of possible responses now. Please listen to them and then tell me how many of the following reactions you would support.”

Next, the survey enumerator reads the following potential responses to respondents in the control group:

- 1) A peaceful protest at the Western country’s embassy.
- 2) Your government demands an apology from the Western country.
- 3) Your government declaring war against the Western country.

For the treatment group, the enumerator reads the options given to the control group, plus an additional *sensitive* option:

- 4) *An attack on the Western country’s embassy that could result in military or civilian casualties.*

For both groups, respondents only reveal the *total number* of potential responses to the hypothetical scenario that they would support and they do not reveal to the survey enumerator which actions they would support.

Our estimates are a linear function of respondents’ treatment assignment, radio listenership, and control variables for age, gender, education, religious attendance, employment, and a household item index to account for material well-being. Given that the groups are identical on every measure except for the addition of a fourth item on the list, any differences between the groups are attributed to the addition of the sensitive item.

Specifically, the average difference between the treatment and control group is interpreted as the proportion of respondents who would support an attack on an embassy resulting in military or civilian casualties. We report this difference as the “average treatment effect.” We also report the difference in the average treatment effect by gender. Lastly, we report the difference in the average treatment effect by listenership status. Because we are interested in the dynamic patterns of listenership reported above, we use wave 2 data to compare the effect on radio listeners (*Always Listeners* and *Tune Ins*) relative to non-listeners (*Never Listeners* and *Tune Outs*).

Table 20. Support for attacking an embassy (List experiment)

	Average Treatment Effect	Gender Effect (Women)	Effect of P-DEV II Radio Listenership
Chad	0.182* [0.074]	-0.175 [0.203]	-0.262* [0.134]
Niger	0.009 [0.092]	0.238 [0.163]	-0.087 [0.271]

+ .10; * 0.05; ** 0.01; *** 0.001

Table 20 presents the results of the first list experiment. We find that 18.2% of respondents in Chad would be willing to support a violent attack on an embassy in response to the publication of an offensive image of the Prophet Mohammed. This result is statistically significant. In Niger, on the other hand, the average treatment effect is statistically undistinguishable from zero. Finally, we found no discernable gender effects in either country.

How did P-DEV II radio listenership influence these results? We now turn to the conditional effects by radio listenership. As is shown in Table 20, the results vary greatly by country. In Chad, radio listeners are significantly less likely than non-listeners to support an attack on an embassy by a difference of 26.2%. Nigerien radio listeners are also less likely to support an attack than non-listeners, but this difference is not statistically significant. These findings suggest some important differences between those who reported listening to P-DEV II radio programs and those who did not.

List experiment #2: Join an Extremist Group

The EAS Team included an additional list experiment designed to capture respondents’ latent predisposition for joining an extremist group. For this item, the hypothetical scenario was intentionally designed to be more open-ended than the first one, prompting the respondents:

“I am going to read you a list of things that people in this area may have considered doing. Please listen to them and then tell me how many YOU would consider doing.”

The key phrase in the hypothetical prompt is, “would consider doing.” Rather than asking respondents about past or future behavior, which depends on resources and

opportunities, we ask about potential considerations. After the prompt, respondents in the control group were presented with the following potential considerations:

- 1) Donating clothes or money to someone in need
- 2) Voting for a candidate who is a strong supporter of homosexual rights
- 3) Reporting an official who has taken bribes
- 4) Going on the Hajj

In this case, the first and fourth items are largely unobjectionable and mostly non-political. We also added an item with political implications so that the sensitive items would stand out less. Finally, the item on voting for a pro-homosexuality candidate is the low-prevalence item to avoid *ceiling effects*.⁹

The respondents in the treatment group receive the same list as the control group with the addition of one *sensitive* item:

- 5) *Joining a group that carries out acts of violence to defend your religion*

Respondents reveal the *total number* of potential responses to the action they would consider doing without revealing which ones. We present the results of the second list experiment in Table 21.

In Chad, there are no discernable treatment or gender effects, suggesting that practically no respondents indicated a willingness to join a violent group to defend their religion. On the other hand, we found a strong and statistically significant average treatment effect in Niger, where 41.3% of respondents would consider joining an extremist group. This effect, however, is concentrated among Nigerien men. The results show that women are significantly less likely than men to be willing to join a group that carries out acts of violence by a difference of 45.4%.

Table 21. Join a Violent Group (List experiment)

	Average Treatment Effect	Gender Effect (Women)	Effect of P-DEV II Radio Listenership
Chad	-0.007 [0.079]	0.005 [0.126]	0.092 [0.117]
Niger	0.413*** [0.089]	-0.454* [0.221]	0.338 [0.261]

+ .10; * 0.05; ** 0.01; *** 0.001

Finally, we found that the effects of P-DEV II radio programming on the willingness to join a violent group are inconclusive. While the difference between radio listeners and non-listeners is greater in Niger than in Chad, the conditional effect of listenership is undistinguishable from zero.

⁹ Ceiling effects occur when a respondent honestly responds “yes” to all non-sensitive items. In this case, treatment group respondents are no longer shielded from social desirability bias.

Taken together, the findings presented in this section indicate that there is appears to be a latent predisposition for religiously motivated violence in both Chad and Niger. The results show that a sizable minority of respondents would support carrying acts of violence to defend religious beliefs. Nonetheless, our findings suggest that P-DEV II radio programming had an impact in reducing support for violence in Chad but not in Niger. This is consistent with the results presented in Tables 16A and 16B where we show that P-DEV II radio programming had a positive effect on attitudes toward violence and that frequency of exposure reinforced disapproval of violence only in Chad.

B. ENDORSEMENT EXPERIMENTS

Next, we present the results of two “endorsement experiments,” which were designed to assess respondents’ support for the extremist group *Al Qaeda in the Islamic Maghreb* (AQIM). The goal of the endorsement experiments is to measure sympathy or agreement with active radical and extremist groups by comparing policy preferences with and without AQIM cues. The procedure is as follows. Respondents are presented with a hypothetical prompt that makes reference to a policy or program. Half of respondents are randomly assigned to a “control group” to whom the survey enumerator reads the policy prompt without endorsement. The other half of respondents are randomly assigned to a “treatment group” to which the survey enumerator lists the same prompt with the addition of an endorsement statement by a militant or extremist group operating in the Sahel region, in this case AQIM. Because the groups are identical on every measure except for the addition of the endorsement cue, differences between the treatment and control groups estimate the effect of the AQIM cue. As in the previous section, we report these differences as average treatment effects. We also report gender effects as well as the difference in the average treatment effect by listenership status (*Always Listeners* and *Tune Ins* compared to *Never Listeners* and *Tune Outs*).

Endorsement experiment #1: WHO Polio Vaccination Program

For the first endorsement experiment, respondents were randomly assigned to receive one of two prompts. In the control condition, the survey enumerator read:

“The World Health Organization recently announced a plan to introduce universal Polio vaccinations across [Chad/Niger]. How much do you approve of such a plan: not at all, somewhat, or quite?”

Respondents in the treatment conditions received an identical prompt, but with the addition of an endorsement cue:

*“The World Health Organization recently announced a plan to introduce universal Polio vaccinations across [Chad/Niger]. **It is likely that Al-Qaeda in the Islamic Maghreb (AQIM), an Islamist group, will oppose this program.** How much do you approve of such a plan: not at all, somewhat, or quite?”*

Responses are coded so that a negative difference between treatment and control groups implies latent support or endorsement of AQIM’s opposition to the polio vaccination plan. Positive differences between the treatment and control groups imply disagreement with AQIM.

Table 22. World Health Organization Polio Vaccine Program (Endorsement experiment)

	Average Treatment Effect	Gender Effect (Women)	Effect of P-DEV II Radio Listenership
Chad	-0.353*** [0.104]	0.219 [0.154]	-0.289+ [0.165]
Niger	-0.556*** [0.108]	0.160 [0.163]	-0.061 [0.234]

+ .10; * 0.05; ** 0.01; *** 0.001

As shown in Table 22, the average treatment effects are negative and significant in both countries. Chadians and Nigeriens are less willing to approve of the WHO-sponsored plan if AQIM states its opposition to it. Regarding the effect of gender, women in both countries are more likely than men to approve of the program if AQIM opposes it, but these effects are inconclusive. Finally, we assess the effects of P-DEV II radio programming on endorsement of AQIM’s position regarding the WHO plan. In Chad, the effects of listenership are negative, with borderline ($p < .10$) statistical significance, meaning that radio listeners are less likely than non-listeners to support the vaccination plan if AQIM declares its opposition it. We found no effects of radio listenership in Niger.

Endorsement experiment #2: Proposal to Cut Tires with the West

The second endorsement experiment taps into respondents’ anti-western attitudes and measures the degree to which the militant group AQIM influences those attitudes. The control group was asked whether they approve or disapprove of the following:

“A recent proposal calls for cutting ties between Islamic countries and the West. These reforms may result in economic and political difficulties, but some believe that they will be worthwhile in the long-run. How do you feel about this proposal: approve, neither approve nor disapprove, or disapprove?”

The treatment group receives the same proposal with the additional endorsement by AQIM:

“A recent proposal by Al-Qaeda in the Islamic Maghreb (AQIM), an Islamist group, calls for cutting ties between Islamic countries and the West. These reforms may result in economic and political difficulties, but some believe that they will be worthwhile in the long-run. How do you feel about this proposal: approve, neither approve nor disapprove, or disapprove?”

Although anti-western identity is prompted in control and treatment conditions, the endorsement procedure was designed to distinguish sympathizers with AQIM from those who oppose Western interests in principle but who are unsympathetic with a militant group. Responses are coded so that a negative difference between treatment and control groups

implies latent support for or endorsement of AQIM’s proposal to cut ties with the West. Positive differences between the treatment and control groups imply rejection of AQIM’s proposal. Table 23 presents the results.

Table 23. Cutting Ties with the West (Endorsement experiment)

	Average Treatment Effect	Gender Effect (Women)	Effect of P-DEV II Radio Listenership
Chad	0.044 [0.064]	-0.156 [0.125]	0.135 [0.156]
Niger	0.069 [0.097]	0.274 [0.188]	0.084 [0.187]

+ .10; * 0.05; ** 0.01; *** 0.001

The results of the second endorsement experiment are weak, suggesting that the proposal by AQIM does not influence respondents’ anti-West attitudes. The average treatment effect is small and there are no discernable gender effects. Radio listenership has a small positive effect, but it is also statistically undistinguishable from zero.

The findings of the endorsement experiments suggest an important difference in the influence militant groups can have over populations. On the one hand, respondents were willing to reject a potentially beneficial vaccination program if a militant organization operating in the region opposed such a plan. On the other hand, the same militant group may be unable to have an effect on anti-Western attitudes, perhaps because these are deeply entrenched and difficult to change with such a subtle cue.

CONCLUSIONS

This report presents the results of for the evaluation of the radio component of USAID’s Peace through Development II (P-DEV II) Program. P-DEV II is a five year program that began in October 2012 and is operating in Chad, Niger, and Burkina Faso in a diverse range of sectors, including media, dialogue, community development, and youth engagement, all with the main objective of countering violent extremism. This report represents an assessment of the youth and governance radio broadcasts in Chad and Niger in relation to the program’s strategic objectives and stated goals.

To evaluate the impact of P-DEV II radio programming, the EAS Team conducted a longitudinal study using panel data in selected non-core zones (radio-only) and embedded experiments in the survey instrument to capture the dynamics of social cohesion, resilience to violent extremism, and youth outlook as they relate to radio listenership. The report also provides an assessment for targeted demographics such as female vs. male. We found important discrepancies in P-DEV II radio program effects between countries. Most of the positive and negative impacts of radio listenership on goal-level indicators were concentrated in Chad, with mixed effects in Niger.

One of the key findings is that the radio component of P-DEV II has the potential to empower and mobilize target populations. We found significant increases in political efficacy and collective action among radio listeners, with this impact enhanced by frequent exposure to the programs. In Chad, radio listenership caused an increase in interest local affairs and politics. These findings are consistent with previous studies which show that donor-sponsored civic education interventions can be effective in increasing citizen engagement and political participation (Finkel et al. 2012).

P-DEV II radio programming also had positive effects on diversity and inclusiveness in Chad, although no similar effects were found in Niger. Chadian youth who listened to the radio broadcasts reported increasing contact with people from other ethnicities and a greater perception that decision-making in their communities ethnically inclusive and that it takes into account the voices of youth. This is also reflective of the positive impact that P-DEV II radio had on satisfaction with how decisions are made in Chadian communities.

Conversely, we found that radio listenership increased dissatisfaction with life in both countries and with service provision in Chad. An interpretation of these findings is that P-DEV II radio broadcasts may instill a more ambitious view of what constitutes a satisfactory life and efficient public service provision among listeners, which may act as catalysts for collective action. This would explain negative program effects on satisfaction with life and public services with concurrent positive effects on political efficacy, political participation, and interest in local affairs.

An important finding is that P-DEV II radio listenership helped reduce support for violence and opposition to Sharia Law in Chad, but no similar effects were found in Niger. From the baseline report, we know that there is very wide support for very strict observance of Sharia Law which may be the reason why the radio broadcasts failed to exert an effect in such preferences.

Finally, a finding that is consistent with the results of the baseline report is that target zones in Chad and Niger show some vulnerability to violent extremism on some indicators corresponding to the strategic objectives and goals of the program. Furthermore, the list experiments revealed a latent propensity for extremist behavior in both Chad and Niger, with a sizable minority willing to use violence to defend religious views. Exposure to radio programming helped reduce this propensity for violence in Chad but not in Niger, which is consistent with the pattern of findings presented in this report. In addition, the results of one endorsement experiment suggested that there is significant latent support for militant groups in the Sahel region. These findings could potentially inform modifications to program implementation and guide subsequent waves of data collection and analysis for the mid-line and end-line evaluations.

Table 24. Summary of Statistically Significant Findings

	Chad	Niger
Social Cohesion	Network diversity (ethnicity) Institutional trust Negative effects on who should make decisions Satisfaction with decisions Political participation	Institutional trust Political participation Negative effects on who should make decisions
Resilience to Violent Extremism	External and internal efficacy Perceptions of divisions (religious) Use of violence Negative effects on extremist attitudes Opposition to Sharia Law	External and internal efficacy Negative effects on extremist attitudes
Youth Outlook	Negative effects on life satisfaction Negative effects on service satisfaction Increased interest in local affairs	Negative effects on life satisfaction
Experimental evidence	Latent predisposition for violence Militant group influence	Latent predisposition for violence Militant group influence

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