

The known knowns and known unknowns of peacekeeping data

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Introduction to the special data review forum

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There has recently been huge expansion in the availability of systematic data on peacekeeping missions. Data capturing the size and composition of peacekeeping operations has improved in depth and breadth, and is now complemented by a collection of disaggregated and geo-coded data. This means that rather than simply measuring the presence or absence of peacekeeping within a conflict or state, data is now available on a range of more specific indicators such as the location and response to specific peacekeeping events (cf. Dorussen and Ruggeri, this issue). The rapid growth in the range and quality of peacekeeping data has produced new insights, and offers greater opportunities for researchers attempting to analyse a range of policy-relevant questions. Yet despite the burgeoning collection of peacekeeping work, there remain areas in which understanding is weak or deficient. Moreover, while the community of peace scientists that regularly engage in quantitative research are often familiar with the existence of new (and existing) datasets, the broader community of peace and conflict researchers – in particular those from the policy world – are often unaware of the significant progress that has been made in this field. As a result, the potential for systematically collected and analysed peacekeeping data to have a real impact on policy debates often remains unrealized. This special data section was conceived as a means to address these inadequacies: firstly by providing a forum for those leading the development of quantitative peacekeeping data to communicate the current state-of-the-field to the broad academic and policy readership of *International Peacekeeping*; and secondly, as an opportunity for researchers to highlight some of the areas in which future data collection efforts should be focused.

The prequel to this collection of short essays was a roundtable at the International Studies Association annual convention in Atlanta, in March 2016. The roundtable – which was sponsored by *International Peacekeeping* – included presentations from six scholars at the forefront of developments in peacekeeping data. This discussion highlighted some of the key developments recently observed in the collection and analysis of peacekeeping data, but also revealed areas in which more research was required. This special data section includes contributions from each of the roundtable participants, as well as five distinguished scholars with significant experience in the collection and analysis of peacekeeping data, and a PhD student who attended the roundtable and played an active role in the discussion.

In this collection of nine short essays, the participants discuss how their own data collection efforts contribute to peacekeeping knowledge (e.g. the known knowns), possible synergies between datasets, and areas in which extensions and further research is required (e.g. the known unknowns). More specifically, Jacob Kathman discusses personnel contributions and compositions of United Nations peacekeeping missions, offering a brief summary of the data he collected on monthly force contributions and mission capacity, and highlighting research questions that emerge from this work. Kyle Beardsley also discusses force contributions, but surveys a wider range of data sources, in particular highlighting the limitations with regard to assessing gender inequity. Ismene Gizelis and Louise Olsen also focus on gender, highlighting where enhancements are required with respect to disaggregated gender data. Vincenzo Bove, Andrea Ruggeri and Remco Zwetsloot introduce a new dataset that extends previous data on force composition by focusing on leadership, providing information on the nationality, tenure and experience of each Special Representative of the Secretary General and Force Commander for UN peacekeeping operations in Africa and Asia. The authors offer some preliminary analysis and note some of the possible applications of their new data. Jair van der Lijn and Timo Smit reflect on the considerable and long-standing data collection efforts undertaken by the Stockholm International Peace Research Institute (SIPRI) which – in addition to information on personnel and country contributors – also provides data on fatalities, budgets and non-UN missions. The authors also set out SIPRI's agenda for future data collection efforts. Moving beyond force composition, Han Dorussen and Andrea Ruggeri set out the need for greater data disaggregation in peacekeeping data, in particular differentiating between the *place* and *space* of peacekeeping, and introduce their collection of event datasets which maps the points where peacekeepers are either actors or targets of an action at a specific location and time point. Lisa Hultman next discusses a new project identifying the various activities undertaken by peacekeepers when attempting to protect civilians, and offers useful reflections on the limitations and challenges associated with coding UN Secretary General reports. Paul

Diehl expands the focus of the discussion, highlighting some of the potential perils associated with assessing peacekeeping using other non-peacekeeping data that were not originally designed this purpose (e.g. conflict fatality measures). Diehl also offers suggestions for untapped data resources that could be used to assess a broader range of peacekeeping effects. Laura Bosco offers a brief summary of United Nations Peacekeeping data and highlights the advantages – for both the UN and researchers – for greater collaboration in this area. Finally, Christina Goodness, the chief of the UN peacekeeping information management unit, reflects on some of the key points raised in the data forum from a UN and practitioners perspective.

Collectively the essays offer a comprehensive survey of the current state-of-the-field in peacekeeping data collection efforts, and we hope will be a useful source for both new and existing users of peacekeeping data.

Personnel composition and member state contributions to United Nations peacekeeping operations

Jacob Kathman

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Much of the literature on United Nations peacekeeping has sought to assess the effectiveness of UN-sponsored peacekeeping operations (PKOs) in pursuing peace in war-torn countries. Recent data collection efforts have attempted to contribute to this endeavor by disaggregating information on UN PKOs in terms of their composition, activities, and experiences in the field. Initial quantitative assessments of peacekeeping largely relied upon rudimentary representations of PKOs in their empirical models, often employing dichotomous indicators of the presence or absence of a mission in a given host state in attempting to reveal the general effect of peacekeeping. However, what recent data collection projects have revealed is that peacekeeping missions come in many shapes and sizes, are variously mandated, deploy to heterogeneous locations, and are faced with variously complex challenges. In this paper, I touch on my own data collection efforts that seek to add detail on PKO deployments, pointing to research questions that can be effectively addressed with these data.

UN mission composition

Initial work on peacekeeping effectiveness was largely qualitative, often focusing on a particular case or a handful of cases in an attempt to delineate the

factors that were associated with mission success or failure. While rich in detail and historiographic rigor, these studies tended to suffer from a lack of inter-case comparison, often selecting on the dependent variable and arriving at deterministic outcomes. Subsequent quantitative work assessed differences in cases to which PKOs were and were not deployed, noting that the UN tended to select rather difficult cases, and often indicating that PKOs were generally effective in achieving a number of intervention goals.¹ Yet, while there was some delineation between what types of missions were deployed, the data generally did not account for heterogeneity across missions. As such, early quantitative analyses were limited in their policy advice beyond promoting the fact that peacekeeping generally appeared effective.

This is an interesting shortcoming particularly because much of the theorizing in the literature on peacekeeping effectiveness has focused on the security dilemma that is present between combatants seeking resolution to their hostilities. The security dilemma hampers cooperation between the combatants, making it difficult to credibly commit to conflict resolution. The availability of third-party security guarantees in the form of intercession and observation is thus critical to the resolution of conflict.²

Yet, often missed in peacekeeping research is that the capacity of missions varies in terms of their ability to provide security guarantees. Consider, for example, [Figure 1](#) which plots troop deployments to three missions by month over the course of the mid-1990s. The series of missions to Somalia (UNOSOM) is notable for its enormous troop deployment and its rapid escalation and demobilization. By contrast, the series of missions to Angola (UNAVEM) included only a handful of troops for years before gradually escalating its troop deployment to more moderate levels. Further, the mission to Mozambique (ONUMOZ) ramped up its troop commitment, and waffled in deployment size before plateauing and deescalating. These missions are distinct from one another in their deployments and in terms of their capacities to pursue their specific peace processes.

What is readily apparent when studying mission capacity is that the UN's missions are not at all homogenous, as analyses employing PKO dummy variables would implicitly assume. Instead, missions like those to Yugoslavia, Sierra Leone, Somalia, Sudan, and the Democratic Republic of the Congo (DRC) are deployed with tens of thousands of personnel to carry out mission functions while many other missions have only a fraction of these personnel levels.

To capture these differences, I have collected data for all missions globally at the monthly level via reports made available on the Department of Peacekeeping Operations website for the 1990–2014 period.³ The data include information on the number of deployed troops, police, and unarmed

¹For a review of this literature, see Fortna and Howard "Pitfalls and Prospects."

²Walter, *Committing to Peace*.

³Kathman, "United Nations Peacekeeping Personnel Commitments."



Figure 1. Peacekeeping troop contributions to three missions.

observers. With information on mission capacity, many opportunities for peacekeeping research become available. Initial research seems to indicate that mission capacity does in fact matter in differentiating between mission with regard to their effectiveness on such issues as reducing the violence of civil wars, extending post-conflict peace, and containing the diffusion of hostilities.⁴

However, dynamic data on mission capacities might be usefully employed in assessing a variety of additional indicators of effectiveness including assessments of peace agreement durability, post-conflict democratization and economic recovery, peacekeeper abuses, and others. Further, given the dynamism in PKO deployment size, research can critically assess the means by which the UN responds (or does not respond) to conditions on the ground.⁵ What explains personnel (de-)escalations? What factors affect the various personnel combinations that constitute missions? What explains the UN's routine inability to meet the designated personnel levels that are mandated by the Security Council?⁶ Do some theories of institution behavior receive more support than others in terms of mission personnel dynamics? These and

⁴Hultman, Kathman, and Shannon, "United Nations Peacekeeping and Civilian Protection"; Hultman, Kathman, and Shannon, "Beyond Keeping Peace"; Hultman, Kathman, and Shannon, "United Nations Peacekeeping Dynamics"; Kathman and Wood "Stopping the Killing during the 'Peace'"; and Beardley and Gleditsch "Peacekeeping as Conflict Containment."

⁵For an example in the context of civil war, see Benson and Kathman, "UN Bias and Force Commitments."

⁶For instance, see Passmore, Shannon, and Hart, "Rallying the Troops."

other questions can be usefully assessed with fine-grained data on UN PKO deployments.

UN member state personnel contributions

In addition to mission-level data, I also have assembled data at the level of member state contributions to PKOs as part of the same data collection project. These data report the number of troops, police, and observers contributed by each UN member state to each PKO for each month in the post-cold war period. While much of the literature on UN peacekeeping has focused on mission effectiveness, less research has studied personnel contribution processes. The relative lack of focus on why countries contribute personnel to missions is a bit curious. If peacekeeping composition is an important element of mission effectiveness, then evaluating why countries contribute and what combinations of contributions yield success are critical elements of peacekeeping processes.⁷

Contributor-level data should be useful towards this end. First, while the contributor data is presented in a format that records each member state's monthly contribution to individual missions, these data are easily aggregated to the contributor-month level thus allowing tests of supply side theories of personnel contributions. There is a good deal of variation in these data, both across member states and by particular states over time. For instance, consider [Figure 2](#) which plots Bangladesh's personnel commitments to all PKOs over time. Like Bangladesh, a handful of states, including India and Pakistan, have increased their personnel contributions massively in the post-cold war era. Others, like several Scandinavian states, contribute often, but in lower numbers. Many others rarely (or never) contribute. What explains this variation? One interesting pattern pointed out by Lebovic⁸ is that wealthy, Western nations have greatly reduced their personnel commitments. In their place, PKOs have been staffed by states that are not particularly powerful, tend to have lower quality soldiers, and are generally lower-performing in human rights practices. What explains these patterns, and what consequences do they have for peacekeeping processes?⁹ These are sorely understudied issues for which we now have data to test new theorizing.

Second, the data also allow evaluations of personnel commitments to particular missions. Why do member states accept the costs and risks associated with making such contributions? What motivates states to deploy to a

⁷Some research has begun to address explanations of member state contributions. For examples, see Bove and Elia, "Supplying Peace"; Gaibulloev, Sandler, and Shimizu, "Demands for UN and Non-UN Peacekeeping"; and Uzonyi "Refugee Flows and State Contributions."

⁸Lebovic, "Passing the Burden."

⁹As a step forward in this literature, see the Bove et al. contribution to this forum for a discussion of mission composition as it relates to mission leadership.

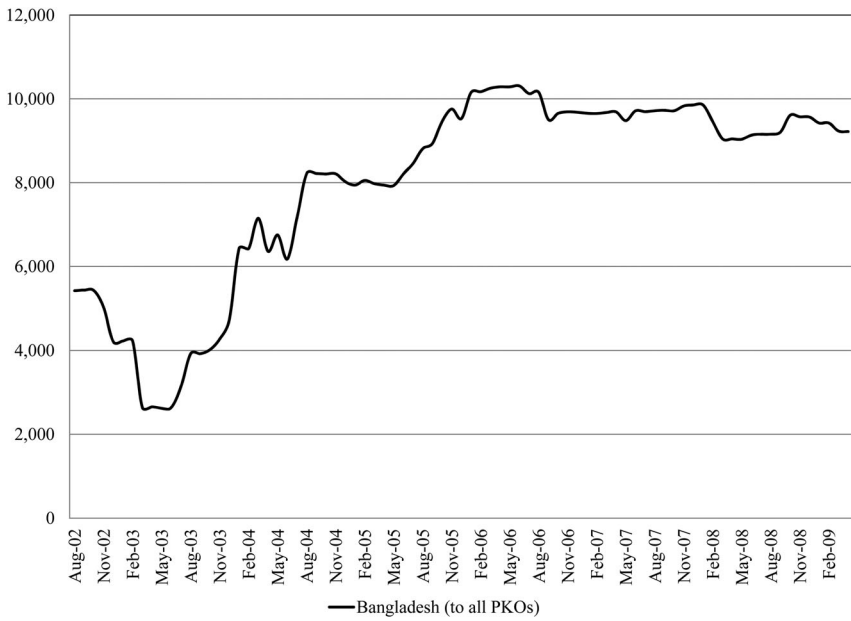


Figure 2. Total personnel contributed by Bangladesh over time.

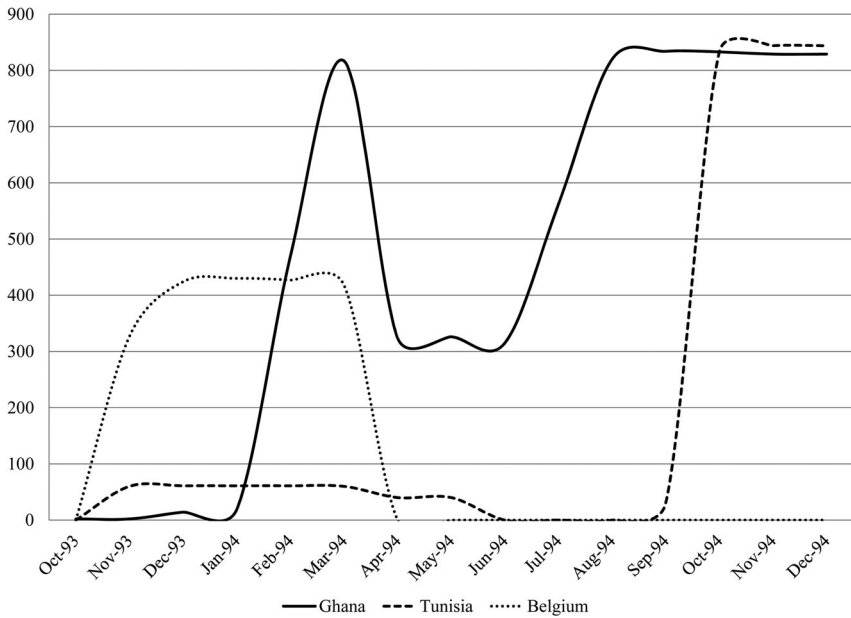


Figure 3. Personnel contributions to UNAMIR by Ghana, Tunisia, and Belgium.

particular host-state relative to others? Are there important contributor–host interstate relations that reveal patterns in personnel commitments? Are there institutional motivations?

Consider [Figure 3](#), which reports personnel contributions to the UN mission in Rwanda (UNAMIR) during Rwanda’s civil war and genocide. The story of UNAMIR’s withdrawal is well known. Soon after the genocide’s initiation, several Belgian peacekeepers were killed, and Belgium responded by withdrawing its troops. Having gutted the centerpiece of UNAMIR’s troop capacity, many other contributor states followed Belgium out of Rwanda. From this anecdote, maybe there is something more generally that we can expect in the relationship between rising hostilities/blue helmet deaths and member state troop withdrawals, including a potentially interrelated nature of troop withdrawals across contributor states. Interestingly, however, [Figure 3](#) also indicates that Ghana and Tunisia significantly re-escalated their commitments to UNAMIR soon thereafter, ostensibly at great risk to their soldiers. What explains such behavior? Are there institutional means by which the UN can motivate contributions even under difficult conditions? Are states primarily motivated by narrow self-interest that can be satisfied by making such personnel commitments? In what way does a contributor’s domestic context create (dis)incentives for making contributions? Do massive contributions come from states committed to internationalist ideals, or are they provided by states that reap narrowly defined domestic benefits from deploying their military abroad?¹⁰ These and other questions can be tested with the personnel contribution data in ways that were not previously possible.

Two important elements of the PKO contribution process open the door to some very interesting theorizing and empirical evaluations using these data. First, while there is not endless demand for peacekeeping contributions, missions often do not reach their mandated personnel targets. Thus, while member states cannot deploy infinite amounts of peacekeeping personnel, there is often considerable space to make contributions. Second, personnel contributions are voluntary on the part of the member states. Taken together, the opportunity for contributions is practically universally present to all states, and it is thus a matter of motivating their involvement. As such, there would seem to be near unlimited room for theorizing on state motivations for contributing blue helmets for which the data exists to test these arguments. Paired with the suggestions made earlier in this piece, testing personnel contributions should have interesting downstream consequences for our understanding of peacekeeping effectiveness, as well. The result is a fertile field for new theorizing and empiricism on peacekeeping processes.

¹⁰For examples of such narrow state-centric benefits as deploying blue helmets for the purposes of coup-proofing and preparation for interstate conflict, see Kathman and Melin “Who Keeps the Peace?”

Advances in the analysis of contributor-level peacekeeping data, with a focus on gender data

Kyle Beardsley

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UN peacekeeping missions rely on contributions from many Member States.¹ For example, in 2007, the UN mission in Sudan (UNMIS) had 74 different countries contribute forces to the mission.² Recent empirical studies have begun to explore both the sources of variation in country contributions to UN missions and the consequences of that variation. This essay surveys the advances that some of those studies have made, discusses limitations to the data collection and analysis efforts, and recommends investments that might be made to improve related data-driven research agendas going forward. In particular, the essay argues that the available data only allow for researchers to scratch the surface with regard to assessing gender inequity in peacekeeping operations. Adding additional demographic information of the peacekeepers, as well as more specific information on the roles that the peacekeepers play, would greatly improve our understanding of improvements that have been realized and challenges that remain in the ability for women to fully participate as peacekeepers.

Existing research

The UN Department of Peacekeeping Operations (DPKO) publishes monthly data on its website regarding the contributions of countries to peacekeeping missions. From 1990 to 2000, the data include the total number of contributions that each contributor made, but the data are inconsistent in whether they also include information that pairs the contributions to the destination missions. In 2001, the monthly data began to consistently include the pairings of contributor countries and missions. Moreover, from 2002 on, the data include both the contributor-mission pairings and the breakdowns by post (e.g. observers, troops and police). Starting in November of 2009, the UNDPKO began to publish this information further broken down by gender (male or female). So, after 2009, we now know how many men and women of each type of peacekeeper post each contributing country sent to each mission in each month.

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¹This paper focuses exclusively on UN peacekeeping missions and the respective available data.

²This was the highest number of contributors to any mission in Kathman's data (Kathman, "United Nations Peacekeeping Personnel Commitments").

Kathman has aggregated the basic contributor-mission-post data from the UN website and has begun to update these data periodically.³ A number of studies have either used Kathman's data or their own versions to study dynamics related to UN peacekeeping.

Some studies consider variation in contributions as something interesting to explain using theories of international politics. For example, Bove and Elia explore a number of contributor-level and conflict-level characteristics that help drive peacekeeping contributions – they particularly find strong support for the argument that contributions are driven by comparative advantages in the availability and costs of labor.⁴ Kathman and Melin discover that the military challenges and coup threats in the contributing countries can affect their willingness to deploy peacekeepers.⁵ Uzonyi finds that countries are more likely to contribute when the mission has the possibility of attenuating costly refugee flows into the contributing countries.⁶ Ward and Dorussen use a network approach and conclude that a contributing country's network placement relative to other contributors strongly shapes its allocation of peacekeepers.⁷ All of these studies complement the volume edited by Bellamy and Williams, which looks both quantitatively and qualitatively at choices that a number of specific contributing countries make in allocating peacekeeping force deployments.⁸

Relatedly, studies have used the UN's publication of the gender breakdowns of peacekeeping contributions to explore variation in the deployment of women to missions. Karim and Beardsley find that the proportion of women in domestic security institutions shapes the proportion of women in peacekeeping contributions, as does the participation of women in the labor force.⁹ Moreover, they find that a gendered protection norm appears to reduce the willingness of contributing countries to send women to the missions that pose the greatest risk to the peacekeeping personnel. Crawford, Lebovic and MacDonald additionally find that contributing countries are more likely to deploy women when domestic institutions and norms are more favorable to women's rights.¹⁰

In addition to exploring the determinants of variation in peacekeeping contributions, other studies have explored the consequences of such variation. Bove and Ruggeri have found that less homogenous missions are less prone to acts of violence against civilians.¹¹ Karim and Beardsley have found that

³Kathman, "United Nations Peacekeeping Personnel Commitments."

⁴Bove and Elia, "Supplying Peace."

⁵Kathman and Melin, "Who Keeps the Peace?"

⁶Uzonyi, "Refugee Flows."

⁷Ward and Dorussen, "Standing Alongside Your Friends."

⁸Bellamy and Williams, *Providing Peacekeepers*.

⁹Karim and Beardsley, "Female Peacekeepers"; and Karim and Beardsley, "Ladies Last."

¹⁰Crawford, Lebovic, and MacDonald, "Explaining the Variation."

¹¹Bove and Ruggeri, "Kinds of Blue."

missions that consist of more contributions from countries with relatively strong records of gender equality are less prone to allegations of sexual exploitation and abuse (SEA); moreover, this effect appears stronger than the observed effect related to increases in the representation of women in missions.¹²

Limitations

While these recent studies have advanced our understanding of the provision and consequences of peacekeeping operations, data limitations remain that inhibit much more than scratching-the-surface analyses of the progress that has been made and that still is needed in addressing gender inequality in and through peace operations.¹³ Gender inequality is much more than an imbalance in the number of women and men, and a number of studies, both qualitative and quantitative, have explored the institutionalization of gender power imbalances in peacekeeping operations.¹⁴ It is possible that improvements in the representation of women belie stagnation or even steps backward in the extent to which women in peacekeeping operations are excluded from important functions, discriminated against, or are subject to abuse and sexual violence. Moreover, it is possible for improvements in these regards to occur even as the proportions of women in missions remain low.

Related to the understanding that progress on gender equality entails much more than improving the representation of female bodies, the 2015 Report of the High-level Independent Panel on Peace Operations, recommends that

In order to strengthen accountability for the implementation of the women and peace and security agenda, the compact between the Secretary-General and heads of mission should incorporate three gender-related indicators: (a) commitment to promoting gender mainstreaming across all mandated tasks; (b) commitment to encouraging national leaders to take ownership of the women and peace and security agenda; and (c) commitment to increasing gender parity among staff.¹⁵

These “gender-related indicators” entail much more than simple counts of women and men on missions. Much more information is needed to understand how well gender is being mainstreamed, how well policy makers of Member States are providing parallel support for the women, peace and

¹²Karim and Beardsley, “Explaining Sexual Exploitation.”

¹³See work by Olsson and Möller, “Data on Women’s Participation” for an early assessment of gender-disaggregated data related to the UN, EU and OSCE field missions.

¹⁴See for example, studies by Karim and Beardsley, *Equal Opportunity Peacekeeping*; Kronsell, *Gender, Sex and the Postnational Defense*; Duncanson, *Forces for Good?*; Olsson and Tryggestad, *Women and International Peacekeeping*; and Olsson and Gizelis, “Advancing Gender and Peacekeeping”. See also the edited volume by Olsson and Gizelis, *Gender, Peace and Security*.

¹⁵United Nations, *Report of the High-level Independent Panel*, 80.

security agenda, and how well gender parity at all levels of the peacekeeping missions is being accomplished.¹⁶

Paths forward

To fully capture the successes and challenges in addressing gender inequality in peacekeeping missions, it is important to recognize that regularly published quantitative data on standard indicators alone cannot tell researchers and analysts all or even most of what they need for adequate assessment. Qualitative reports, periodic surveys and other methods of assessment are also crucial for understanding the norms and institutional biases that curtail the role of women in peacekeeping operations. That being said, regular indicators that go beyond the simple reporting of numbers of women and men in peacekeeping missions can prove critical for comparing the status of gender inequality across missions and across time.

An important and feasible addition to the existing data would be the expansion of the peacekeeper demographic data. Just as the counting of women and men is relatively straightforward and easy to report, so is information related to age, education, tenure and training experiences. Gender is often correlated with these variables, and it is informative at times to either untether gender from these other demographic factors or to use the variation in how connected gender is to these indicators to understand important shifts in gender inequalities.

More detailed information on the types of positions that the peacekeepers fill would also help better inform the status of and challenges related to gender reforms in peacekeeping operations. Currently, monthly gender breakdowns of country contributions are publically available by post – for example, police, observer, troops – but not by rank or function. Yet gender inequity can be manifested not just in the aggregate proportions of women and men but also in the proportions when disaggregated by the roles the peacekeepers serve. For example, the 2015 Report of the High-level Independent Panel on Peace Operations, which presented a snapshot of the ranks of peace operations' senior staff broken down by gender, emphasizes the fact that the proportions of women are much smaller at the higher ranks. If the overall representation of women in peacekeeping missions increases but the gains are only in non-leadership positions or only in roles related to medical services, clerical duties or service provision on bases (e.g. housekeeping, food preparation), little, if any, progress toward overcoming gender power imbalances would have been made.

¹⁶Kreft, "The Gender Mainstreaming Gap" provides an example of a fruitful study along these lines, as she finds that gender-mainstreamed peacekeeping mandates are more likely in conflicts with high levels of sexual violence.

More transparency in the roles that women play when they serve on peacekeeping missions would help researchers track important progress toward realizing operations that fully value the participation of women.

Toward an equal peace or stuck in the twilight zone? The known knowns and the known unknowns of gender-disaggregated data in peacekeeping research



Theodora-Ismene Gizelis^a and Louise Olsson^b

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Advancing research on peacekeeping requires a more in-depth understanding of what kind of peacekeeping operations contribute to establishing.¹ A central dimension of peace which we have previously highlighted is the gender-specific dimension.² To advance research by taking a closer look at peace from a gender perspective is very timely. In some sense, such a shift is underway in some of the suggestions outlined in the United Nation High-level Independent Panel on Peace Operation's recommendations and the recently adopted resolution on sustainable peace (United Nations Security Council Resolution [UNSCR] 2282).³

We argue that such progression could be fruitfully developed along two paths prominent in current research debates and data collection. The first trend is to expand on the form of negative peace to include not only loss of life but also sexual violence and other non-lethal forms of violence for both men and women. The second trend outlines an understanding of peace which encompasses gender equality considerations more broadly defined as captured by indicators of development.⁴ If peace is not broadened, many of the security threats and effects of conflict affecting women will not be visible.

In this commentary, we expand on the “known knowns” on how existing gender-disaggregated data can be leveraged to advance research and as well as “known unknowns”, or data we still lack. We do this around the

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¹Fortna and Howard. “Pitfalls and Prospects”.

²Olsson and Gizelis, “Advancing Gender and Peacekeeping”; Gizelis and Olsson. *Gender, Peace and Security*.

³United Nations Secretary-General, “The Future of United Nations Peace Operations.”

⁴Gizelis and Krause, “Exploring Gender Mainstreaming in Security.”

identified two versions of peace; the expanded form of negative peace and the broader peace including peacebuilding dimensions. We will give a few examples of recent or ongoing projects which have systematically addressed these areas and illustrate interesting data conundrums as well as bring out gaps in existing data and suggestions for relevant research questions.

Gender-disaggregated data on extended negative peace

The extended versions of negative peace – lack of physical violence by the warring parties – should be understood in terms of how violence and protection are distributed between men and women, that is, security equality. There are a number of key areas where gender-disaggregated data and data collection are key. Following policy debates, research has begun to examine peacekeeping operations' capacity to handle conflict-related sexual violence⁵ as well as the related areas of implementing gender-aware protection of civilians.⁶ In addition, the halting of SEA by peace operation personnel is a growing research area in empirical research.⁷

So, does wide-spread conflict-related sexual violence affect the probability of a peacekeeping mission being established? And can such operations actually contribute to protecting civilians from such violence? These are questions raised in two projects, by Theodora-Ismene Gizelis and Michelle Benson, and by Lisa Hultman and Karin Johansson, which seek to develop mainstream peacekeeping research through gender-disaggregated data. Ideas around gender-aware protection of civilians developed in the mid-2000 when sexual violence, strengthened by the development of the protection of civilians mandates resulting in Security Council Resolution 1820. With this resolution, the mandates and expectations to be able to handle sexual violence became more pronounced. Combining peacekeeping data with data from the Sexual Violence in Armed Conflict dataset, Hultman and Johansson's preliminary study indicate that missions operating in an environment where rebels control the territory then the pressure and oversight of a peacekeeping operation might decrease levels of sexual violence. If there is low cohesion and poor command and control in the rebel forces, however, the effects of peacekeeping can be very limited.⁸ Looking at UNSC resolutions, Benson and Gizelis find that indeed there is a strong correlation between reports

⁵In fact, this question was brought up by already in 2001 by Skjelsbeak, "Sexual Violence in Times of War." See also Krause "Revisiting Protection from Conflict-related Sexual Violence."

⁶See, for example, Carpenter, "Women, Children and Other Vulnerable Groups."

⁷See, for example, Higate "Peacekeepers, Masculinities, and Sexual Exploitation."

⁸Discussions at the International Studies Association Panel, Atlanta 2016, at the panel TD17: The United Nations (UN) and Peacekeeping.

of sexual violence in a conflict and the likelihood that the UNSC will refer to the conflict in a resolution. This pattern precedes resolution 1325 and seems more likely to follow the debates on the war in Bosnia-Herzegovina and the genocide in Rwanda which had very high levels of sexual violence.⁹

The last point concerns the “unintended” effects of peacekeeping personnel. By addressing this form of violence and crimes by international personnel the Security Council resolution 2272 has increased the political pressure by renewing this debate. In research, the lack of data has long been a problem by preventing any progress, but recently, we have seen a gradual improvement. Sabrina Karim and Kyle Beardsley’s upcoming book and recent article¹⁰ using a combination of secondary sources and survey data, and Ragnhild Nordås and Siri Rustad’s data set¹¹ using formal reports show that it is possible to improve our knowledge of this area. It would also be very fruitful to relate this research to sexual violence by military groups in conflict settings more broadly.¹²

Into the twilight: data on peace, development and gender equality

If we are instead to view peace in a broader sense we come to the areas where peacekeeping transitions into peacebuilding. Here, gender equality aspects become more apparent and there are a number of central areas for women’s security and for the distribution of resources and power which should be considered in gendered terms. Hence, moving forward on understanding what peace entails for women and what it entails for men. That is, how equal is the peace? Focusing on women’s security, this involves answering questions such as: Is it a situation where there is more crime substituting residual violence and what does that mean for men’s and women’s security? Is there more sexual violence against women? What type of society emerges from the conflict experience? Do different types of peacekeeping and peacekeeping policies impact the levels of violence in a post-conflict country?

In this area, there are a number of data challenges, primarily related to the need for more disaggregated data, particularly in-depth data on more cases in order to obtain comparative studies on how peace is shaped in

⁹See also Skjelsbeak, “Sexual Violence in Times of War.”

¹⁰Karim and Beardsley, *Equal Opportunity Peacekeeping*; and Karim and Beardsley “Explaining Sexual Exploitation and Abuse in Peacekeeping Missions.”

¹¹Nordås and Rustad, “Sexual Exploitation and Abuse by Peacekeepers.”

¹²See, for example, Cohen, “Explaining Rape During Civil War; and Baaz and Stern, *Sexual Violence as a Weapon of War?*

the post-conflict environment for both genders, but especially for women. For example, if we want to expand the concept of violence to also include broader gender-based violence, there is still very limited data on physical violence against women (including domestic violence).¹³ Since there is now a Sustainable Development Goal on gender equality where eradication of violence against women is a sub-goal, the hope is that data will be more systematically collected and linked to peacebuilding processes.¹⁴

For a broader understanding of peace, we also need to consider questions related to the distribution of resources and power in gendered terms. As peace (keeping) starts transitioning into the peacebuilding phase related to development, it is also central to consider what kind of economy emerges in a post-conflict country and to what extent peacekeeping missions shape the economic structures. What are the effects of the measures undertaken for gender equality? For example, do gender mainstreaming policies lead to more inclusive development pathways? How can peacebuilding and post-conflict development use gender mainstreaming to encourage pathways to development that improve social equity and minimize structural conditions for conflict?¹⁵

A way forward is to think creatively of combining existing datasets such as Women's stats with datasets on the location of peacekeepers to evaluate if peacekeeping makes a difference on women's life and under what conditions. An example will be the recent study of Theodora-Ismene Gizelis and Xun Cao on peacekeeping and maternal health indicators with strong evidence that peacekeeping has positive effects on both education and health indicators and subsequently on maternal health.¹⁶ This is one of the first studies to look at different dimensions of peace and in particular women's health and compare countries and regions within countries that experienced peacekeeping missions to those without.

Concluding, to answer these questions, we need more data on peacekeeping activities and policies and extension of the peacebuilding into the post-conflict phase and this will help us understand how the continued path of development can be more or less equal.

¹³Olsson, "Same Peace, Different Quality?"

¹⁴See, Sustainable Development Knowledge Platform. United Nations.

¹⁵See, for example, Olsson, "Mainstreaming Gender in Multidimensional Peacekeeping"; and Gizelis and Krause, "Revisiting Protection from Conflict-Related Sexual Violence."

¹⁶Gizelis and Cao, *Peacekeeping and Post-conflict Maternal Health*.

What do we know about UN peacekeeping leadership?

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Does the composition of a peacekeeping operation's (PKO's) leadership matter for its effectiveness?¹ Can individuals in crucial positions make a difference? Anecdotally, the answer would seem to be yes; observers frequently cite the leadership's quality – or lack thereof – as reason for a mission's success or failure.² At the same time, however, the United Nations made only vague references to PKO leadership in its recent peacekeeping review,³ and one could reasonably argue that the authority of mission heads is so limited in practice that they are unlikely to make much of an impact.

It is difficult to evaluate whether leadership matters without systematic data – anecdotal evidence can be suggestive, but leaves a lot of room for skeptics to attribute events and change to circumstances and structural factors rather than individuals. Comprehensive quantitative evidence could address several of these skeptics' concerns, but the statistical study of UN mission composition is still in its infancy; in a recent study, Bove and Ruggeri analyze how the national composition of Blue Helmets (i.e. the “boots on the ground”) affected their capacity to protect civilians.⁴ We still lack a systematic empirical investigation of leadership, however. A second challenge is formulating testable hypotheses based on the general idea that leaders matter – what specific aspects of leadership do we expect to have an impact, and what are the operative mechanisms?

UN mission leadership: new data

To begin to answer these questions in a systematic fashion, we have been collecting data on different facets of UN PKO leaderships. Specifically, as part of a data-gathering pilot project,⁵ we have collected information on each Special

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¹In our project and this paper, the term “leadership” refers specifically to UN peace missions' leadership – that is, the Special Representative or Force Commander – rather than to the UN leadership at the New York headquarters or commanders and senior staff in the mission generally.

²See for instance see Chopra, “The UN's Kingdom,” 28; Fearon and Laitin, “Neotrusteeship and the Problem of Weak States,” 26–8; and De Coning, “Mediation and Peacebuilding.”

³See the High-Level Independent Panel on Peace Operations. http://www.un.org/sg/pdf/HIPPO_Report_1_June_2015.pdf.

⁴Bove and Ruggeri, “Kinds of Blue.”

⁵Thanks to the financial support of the Folke Bernadotte Academy.

Representative of the Secretary General (SRSG, civilian head) and Force Commander (FC, military head) for UN PKOs in Africa and Asia for the post-cold war period, including their nationality, tenure, and prior experience.⁶ In the future we aim to extend the data geographically, covering other continents, and temporally, to UN missions before 1989. Once collection efforts are finished, this data will allow us to convincingly answer whether leaders matter in the first place, and, if so, how they do so.

In our larger project we elaborate several possible mechanisms and interactions through which leadership could affect UN mission effectiveness. From an organizational perspective, windows of leadership change involve adaptation on part of both the new leadership and the troops and staff, which could slow down decision-making processes. Moreover, if a mission's leadership changes frequently this might negatively affect the mission's strategic coherence. There are also two analytical levels where leadership might exacerbate or dampen possible coordination problems. First, *internally* the SRSG and FC might face barriers to cooperation, for example if the strategic interests of their national principals diverge. Second, *vertically* the leadership needs to work effectively with Blue Helmets in the field; here, coordination problems could emerge from a lack of smooth communication (e.g. due to linguistic difficulties) or differences in military and diplomatic training (e.g. due to different norms and daily practices).

In the remainder of this article we provide some data and figures to show interesting variation in PKO leadership dynamics, and discuss why such variation may matter. Recent research has highlighted that deployment size matters,⁷ but, as [Figure 1](#) highlights, leadership dynamics are separate from deployment size and may have independent effects. Using the United Nations Mission in the Democratic Republic of Congo (MONUC) (D.R.C.) as an example, we can see that at the start of the mission the FC and 30 per cent of the troops (red line) are from Senegal. As the mission expands (see blue line) the relative contribution of Senegalese troops declines, but military leadership remains largely in Senegalese hands (except for two very short spells where the FCs were from Nigeria and Spain, respectively). Does the nationality of the FC affect his⁸ country's contribution, and if so, when and how? Do differences between Blue Helmets and the leadership (the *vertical* dimension highlighted above) play an important role? These new data will enable us to give more robust answers to these questions in the near future.

⁶We are only aware of one attempt to collect information on UN SRSGs, Fröhlich, "The John Holmes Memorial Lecture." Yet, his data focuses on the nature of their work (which human security dimensions) and is not about PKOs specifically but about SRSGs more broadly (most of whom do not serve as heads of PKO missions).

⁷Ruggeri, Gizelis, and Dorussen, "Managing Mistrust"; and Hultman, Kathman, and Shannon, "Beyond Keeping Peace."

⁸We use "his" because female FCs are quite rare; gender will be a further focus of our research. On the issue of gender see also Beardsley and Gizelis and Olsson, this issue.

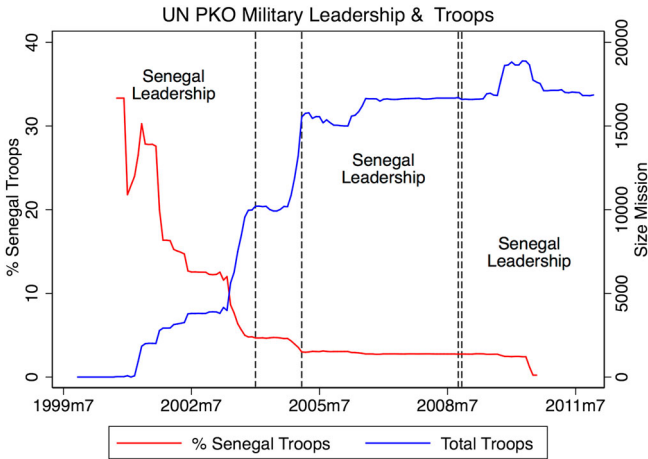


Figure 1. Over time example MONUC mission.

In [Figure 2](#), we provide three temporal density distributions based on our data: UN mission duration generally and UN FCs' and SRSGs' tenure in office specifically. Of the 38 UN missions in our dataset covering Africa and Asia between 1989–2015, the average length of the mission is 70 months with a median of 37 months. These numbers put the “survival” of FCs and SRSGs in context. On the military side, the average time in office of a FC is 19 months. The shortest spell was the one of Vicente Diaz Villegas (Spain) in MONUC, where Spain contributed only six troops (0.03 per cent of the total number). The longest serving FC was Dewan Prem Chad (India), who was at the helm of the United Nations Transition Assistance Group (UNTAG) in Namibia for roughly ten years; in UNTAG, India's contribution was, on average, over 50 per cent of all Blue Helmets. In terms of civilian leadership, SRSGs serve slightly longer than FCs on average (23 months). The shortest-serving SRSG was Ismat Kittani (Iraq) in Somalia (the United Nations Operation in Somalia I [UNOSOM I]) at just 4 months, whereas Martti Ahtisaari (Finland), with nearly 12 years, served the longest period (in UNTAG).

Leadership characteristics

Leader's characteristics can affect mission's performance in a “monadic” fashion. One example of a hypothesis that would be testable with our data concerns the prior experience of individuals in PKO leadership roles. Pierre Schori, former SRSG for the United Nations Operation in Côte d'Ivoire, argues that many in leadership positions have trouble understanding the intricacies of UN missions and recounts that he “was fortunate to have [deputy

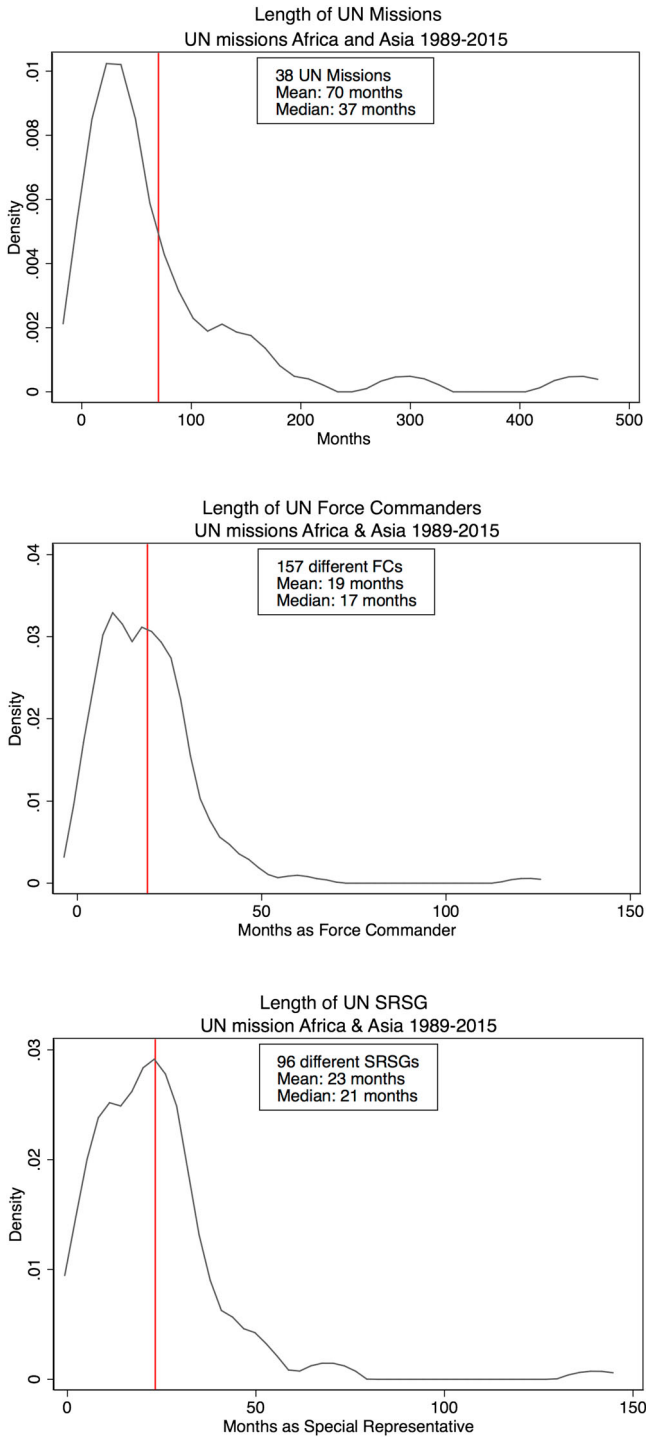


Figure 2. Missions, FCs and SRSGs lengths.

SRSO] Alan Doss, who had previous experience in the mission and in the region, at my side in the first year of service”.⁹ Given that high turnover rates and the resultant repetition of mistakes are among the most common criticisms of UN PKOs,¹⁰ it seems intuitive that having prior experience in UN peacekeeping should lead to more effective leadership and better overall mission performance.

There are also reasons, however, to think that experience within the UN can be a bad thing. Senior staff moving from one mission to another could import the wrong lessons, as happened when cynical views of locals were brought to East Timor from Kosovo,¹¹ or they could be too engrained in UN bureaucratic thinking to take a flexible approach on the ground. In post-war Mozambique, for instance, SRSO Aldo Ajello used his connections with the Italian government to procure funds for important project outside of the UN bureaucracy – to the chagrin of many in New York but to the benefit of the mission’s effectiveness.¹² These contrasting examples beg the question: are leaders who spent their careers as part of the UN system more or less effective than those who come in from the outside?

This question is especially interesting given the changing nature of leadership composition. Although there are exceptions, the data reveal a general trend toward the selection of leaders with a background in the UN, perhaps reflecting a belief that such individuals are more effective in leadership roles. Nearly all current FCs, for example, have previously served in PKOs as commanding officers or senior staff, whereas during the 1990s most FCs only had experience in their national militaries. On the civilian front, United Nations Mission for the Referendum in Western Sahara serves as a good illustrative example. The mission has had 12 SRSOs since its conception in 1991; none of the 7 heads before 2005 had previously served in UN PKOs, whereas all 5 since have peace operation experience.

Internal leadership dynamics

Moving to a “dyadic” approach, we look at the composition of the leadership over time (the *internal* dimension discussed above): does within-leadership political compatibility make a difference? Anecdotal evidence suggests fragmentation among staff can impede the functioning of UN missions,¹³ and “diverging views within the UN mission senior staff” – specifically, disagreements between the FC and civilian leadership – are cited as reasons for slow

⁹Schori, “Leadership on the Line,” 28.

¹⁰Autesserre, *Peaceland*.

¹¹Goldstone, “UNTAET with Hindsight,” 85.

¹²Berdal, “ONUMOZ,” 426.

¹³See, for example, Guyot and Vines, “UNAVEM II and III,” 346.

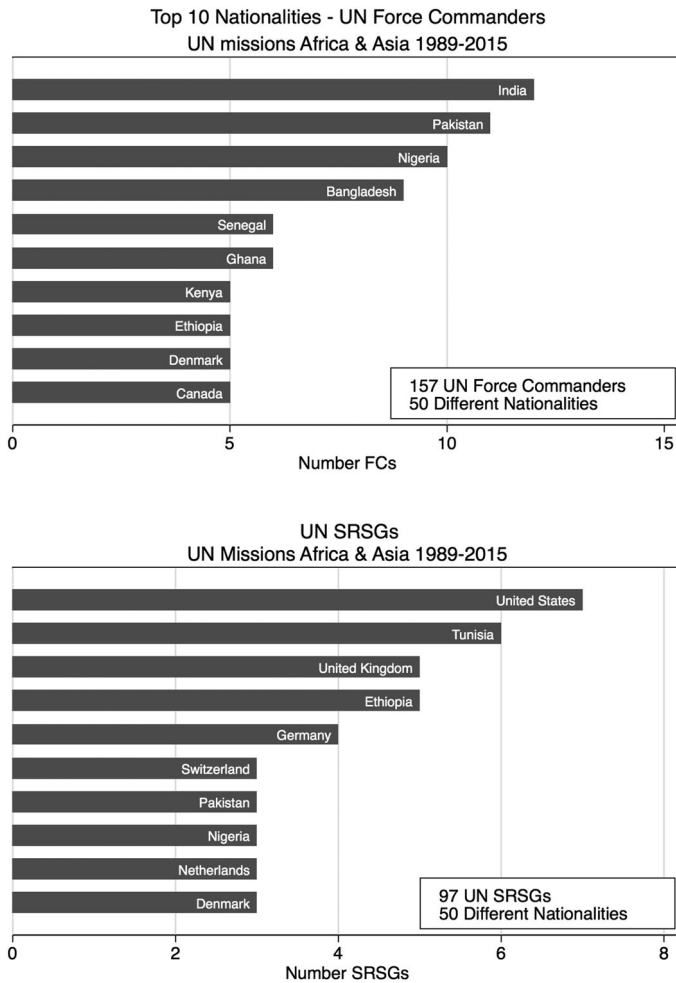


Figure 3. Nationalities of UN PKO leadership.

crisis response in the PKO in Côte d'Ivoire.¹⁴ Disagreements can stem from the different national interests of the leaders' respective states, which often influence their UN staff,¹⁵ as well as from cultural or normative clashes.¹⁶ Such problems are unlikely to arise when the civilian and military heads are from the same or very close states.

Within-leadership differences are much smaller in some missions than in others. For example, the UN's most recent mission in Sudan has been under the exclusive leadership – both on the civilian and the military side – of Ethiopia

¹⁴Yabi, "Côte d'Ivoire," 94.

¹⁵Dandeker and Gow, "Military Culture and Strategic Peacekeeping."

¹⁶Elron, Shamir, and Ben-Ari, "Why Don't they Fight Each Other?"

since its inception in 2011. In South Sudan, in contrast, the civilian leadership has been European (Norway and Denmark) while the military leadership has been African (Nigeria, Ghana and Ethiopia). [Figure 3](#) provides a more general overview that echoes what the comparison above already hints at: there is a clear geographical – and perhaps geopolitical – difference between the main providers of FCs and SRSGs. FCs tend to come from countries that provide large numbers of Blue Helmets, whereas SRSGs come from other countries.

Final remarks

Answering questions about the impact of leadership on PKO effectiveness is crucial not only for scholars who debate the relative importance of agency and structure, but also for senior UN policymakers who care about selecting the best individuals and teams for PKO missions and even the national governments that have to decide whether to invest funds and risk their soldiers' lives. Moving beyond anecdotal examples toward a systematic analysis of UN peacekeeping leadership is essential if scholars are to give sound advice on such questions.



Challenges and opportunities for peace operations data collection: experiences from the SIPRI Multilateral Peace Operations Database

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The Stockholm International Peace Research Institute (SIPRI) has been collecting data on multilateral peace operations since the early 1990s.¹ As a result, SIPRI's current data set covers more than 200 peace operations that have been deployed in the period 1993–2015, including annual statistics on personnel, country contributors, fatalities, and budgets. To our knowledge, it remains the most comprehensive and reliable data set on peace operations that is available in the field.

The data are available in successive editions of the *SIPRI Yearbook*, and in SIPRI's Multilateral Peace Operations Database.² Efforts are on-going to

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¹SIPRI applies a relatively broad definition of peace operations, they must have the stated intention of: (a) serving as an instrument to facilitate the implementation of peace agreements already in place; (b) supporting a peace process; or (c) assisting conflict prevention or peacebuilding efforts. Good offices, fact-finding or electoral assistance missions, and missions comprising non-resident individuals or teams of negotiators are not included.

²SIPRI's Multilateral Peace Operations Database is available at <http://www.sipri.org/databases/pko>.

complement the existing data and to make more data available in the online database in a more user-friendly manner. The objective is to establish the database more firmly as one of SIPRI's major data sets, and as *the* global go-to source of quantitative and qualitative information on peace operations. Although the database is already widely used, this will hopefully increase further its contribution to both policy and academic research.³

This essay aims to provide an overview of SIPRI's Multilateral Peace Operations Database, and to elaborate on some of the initiatives and ideas to expand it in order to accommodate the growing demand for independent and reliable data on peace operations. It also highlights some of the challenges and lessons learned regarding data collection and maintaining a database over a period of nearly 25 years.

Current SIPRI data on peace operations

The online version of the SIPRI Multilateral Peace Operations Database currently covers the years 2000–15. Temporal extension of the database to include the 1990s is foreseen for the future.⁴ At present, the 1993–2015 time series includes data points on more than 200 peace operations and approximately 1,400 mission-year entries. The database includes information on peace operations conducted by the UN as well as by regional organizations or alliances and ad hoc coalitions of states. Besides numbers, the database also provides non-statistical descriptive information on peace operations (location, conducting organization, legal basis, start- and end dates, and leadership) and their mandates.

At the mission-year level, the SIPRI Multilateral Peace Operations Database includes statistics on personnel, country contributions, fatalities, and budgets. The data on personnel are broken down into three categories – military, police, and international civilian staff – while data on locally recruited national staff is usually also provided. These figures generally reflect the actual number of personnel deployed in theatre as of 31 December. The same applies to the data on individual country contributions. The data on fatalities are broken down by personnel category and cause of death. Of note, the data on fatalities among UN personnel are more detailed than the data that is available on the website of the UN Department of Peacekeeping Operations (DPKO).⁵ Finally, budgets are calculated per calendar year based on the common budgets appropriated for missions by the conducting organization.

³For example, Daniel, Taft, and Wiharta, *Peace Operations*; Diehl and Balas, *Peace Operations*, 2nd ed.; and Weiss and Welz, "Military Twists and Turns in World Politics."

⁴Annual data on peace operations in the period 1993–99 can be found in the 1994–2000 editions of the SIPRI Yearbook.

⁵The data SIPRI has obtained from UN DPKO covers all fatalities among UN peace operation personnel between 1948 and 2015 at the mission-year level, and is broken down by personnel category and cause of death.

SIPRI's data set has three comparative strengths that are worth highlighting. First, it is the most comprehensive source of data on non-UN peace operations. The UN DPKO already offers excellent statistics on UN peacekeeping operations on its website, including monthly statistics on uniformed personnel that go back as far as 1990. This is certainly not the case for the various regional organizations and alliances that have deployed peace operations (some of which no longer exist), let alone for missions that were conducted by temporary or ad hoc coalitions of states without standing headquarters or secretariats. As a result, most quantitative studies focus on UN peacekeeping operations exclusively, despite the proliferation of actors that have deployed peace operations since the end of the cold war.⁶ Second, SIPRI has collected its data on an annual basis and in a consistent manner over nearly 25 years. Thanks to this longevity, the current data set enables researchers to conduct large-*n* studies and study trends over longer periods of time. Much of this data would be very difficult (if not impossible) to retrieve now (see below). Third, most of the data is obtained directly from mission's headquarters or from the secretariats of the organizations that conduct(ed) them. They are therefore often considered to be the most accurate available.⁷

In addition to collecting and publishing the data, SIPRI researchers are regularly using the database themselves to inform their research on peace operations. Every year a chapter in the *SIPRI Yearbook* is devoted to assessing the recent and long-term trends in peace operations, while the data have also featured prominently in edited volumes and policy briefs.⁸

Challenges for sustainable data collection

Maintaining an up-to-date database on peace operations is neither easy nor cheap. First and foremost it requires continuity, which in practice means dedicated staff and predictable funding. Data collection needs to be done regularly and thoroughly in order to ensure consistency and prevent data gaps. Although SIPRI has the advantage of its global reputation as an independent institute and a long experience gathering peace operations data – and, as a result, well-established relationships with missions and multilateral organizations that provide data – this remains a constant challenge.

Collecting comparable and disaggregated data on current peace operations can be a tedious and complicated endeavour. Although some regional organizations have become better at keeping track of the number of people in their missions in recent years, their secretariats are sometimes reluctant to provide

⁶In fact, SIPRI's 1990–2015 time series shows that the majority of peace operations (140 out of 215) and mission-year entries (866 out of 1373) pertain non-UN missions.

⁷For example, Williams, "How Many Fatalities Has the African Union Mission in Somalia Suffered?"

⁸For example, Van der Lijn and Smit, "Peace Operations and Conflict Management"; Van der Lijn and Smit, "Peacekeepers under Threat?"; Ismail and Sköns, *Security Activities of External Actors in Africa*; and Van der Lijn and Dundon, "Peacekeepers at Risk."

(disaggregated) data because it is time consuming or because they lack the authorization from their member states. This has particularly been the case for fatality figures and gender-disaggregated data, either because they are not available or because they are considered politically sensitive. Moreover, different organizations often apply different definitions, which has implications on the comparability of the data they provide. For instance, what expenses are covered by the common budget of a peace operation differs per organization, which makes it impossible to compare budgets of, for example, missions conducted by NATO and the UN.

Filling data gaps is arguably even harder. When it comes to non-UN peace operations, backdating is often difficult as it appears that most regional organizations have not kept proper archives on missions that were terminated some time ago. This is not only the case with regional organizations with low institutional capacity (e.g. the African Union (AU) and the regional economic communities in Africa), but also for organizations like the EU and NATO. Needless to say, information on past missions conducted by ad hoc coalitions can only be found at the level of the contributing countries, which renders it practically impossible to retrieve complete and comparable data.

A future data collection agenda

In spite of these challenges, SIPRI is considering several ways to expand its current data set.

First of all, including multilateral operations other than peace operations: The definition of peace operations has been subject to change. While it all started in 1948 with a UN peacekeeping operation, not only have different organizations become involved in the efforts, but the tasks considered to be part of peace operations have also expanded. In addition to the traditional deployment of military and police personnel, several organizations currently deploy civilian missions. At the same time, a number of robust operations have explored the margins of what is considered a peace operation and what may also be considered multilateral war fighting (e.g. International Security Assistance Force [ISAF] in Afghanistan). In addition, regional organizations and ad hoc coalitions have deployed among others multilateral counterinsurgency, counterterrorism, anti-piracy, anti-human trafficking and smuggling operations, and missions aimed to implement the responsibility to protect (sometimes *avant la lettre*). As military, human and financial resources are scarce, if states shift their attention to, or increase participation in non-peace operations, then this will affect peace operations. For this reason, it would be good to also collect data on multilateral operations that are currently considered to go beyond peace operations mandates, but may involve ad hoc joint military efforts, such as the AU-led Regional Task Force for the elimination of the Lord's Resistance Army (RTF), the Multinational

Joint Task Force to combat Boko Haram (MNJTF) and the anti-IS coalition. In the past SIPRI has already collected data on a number of such operations and therefore such an expansion seems achievable.

Secondly, including gender-disaggregated personnel data: The UN only started tracking gender data in 2005.⁹ SIPRI followed suit in 2009 when it also began collecting gender-disaggregated data at the mission-level for non-UN missions. Unfortunately these data are incomplete, partly because a number of organizations still do not aggregate all their data by gender. SIPRI aims to integrate the gender-disaggregated data into its database. Where possible this would be back-dated and complemented, as well. This may have to be done at the level of contributing countries as that appears to be the required level for data collection.¹⁰

Thirdly, and less likely to succeed, including monthly statistics: The UN releases monthly personnel and fatality figures. These monthly statistics are very useful as mission strength can fluctuate a lot during the year. As SIPRI's annual snapshot 31 December data cannot be taken as an average, analysis of non-UN peace operations would be helped with monthly figures. Considering the difficulties that some missions have in providing annual data, for many non-UN operations this is unfortunately still less realistic.

Fourthly, including non-lethal casualty and/or hostile action data: Currently fatality statistics are the best cross-operation indicators for threat and risk levels in peace operations. SIPRI has been able to collect these data in a fairly consistent and comparable manner over a longer time-period. However, fatalities are not an ideal indicator to measure 'danger'. Improving among others force protection and casualty/medical evacuation may reduce the number of fatalities, while in practice the number of instances of troops in contact increases. This is for example very apparent in the UN Multidimensional Integrated Stabilisation Mission in Mali where European troop contributors have so far suffered no fatalities due to hostile action, while the total number of hostile deaths for the mission as a whole is very high. The UN has in recent years started releasing data on non-lethal casualties as the result of hostile action (injuries) and data on attacks against peace operations personnel. Again non-UN peace operations do not report on this in a structural manner, but as with monthly statistics, it is questionable whether it will be possible to collect consistent and comparable data on non-lethal casualties and/or hostile actions.

Last, including the true financial costs of peace operations: SIPRI has collected the budgets of peace operations. These budgets do not reflect the true costs of peace operations. In case of organizations such as the EU and NATO the costs lie where they fall and only a small share of the total costs, for example those of combined units or headquarters, are considered in the common budget. The

⁹See also Beardsley, "Advances in the Analysis of Contributor-level Peacekeeping Data" in this issue.

¹⁰See also Gizelis and Olsson, "Toward an Equal Peace or Stuck in the Twilight Zone?" in this issue.

UN, on the other hand, includes in its budgets reimbursements for troops and equipment, while these do not equal the true costs of an operation either. For some countries these reimbursements are more than enough to cover the true costs, while for others the expenditures of their contributions are much higher. Consequently, a good comparison of the financial costs of peace operations will require additional data collection. Although such data would open up a lot of research opportunities, it would require the huge challenge of going into national budgets to uncover the real expenditures of contributing countries. In spite of SIPRI's many years of experience in collecting and analysing defence expenditure data this would be a formidable effort.

Concluding remarks

A lesson that could be drawn from all this might be to accept that the available data on all non-UN peace operations will never be as comprehensive and disaggregated as the data on UN peacekeeping operations. While this has implications for the comparability of UN and non-UN missions, it does not necessarily preclude the possibility to conduct quantitative analyses on all types of peace operations. It does also not mean that no efforts should be undertaken to improve and expand existing data sets, as there is still room for improvement that is both relevant and feasible. In sum, the SIPRI Multilateral Peace Operations Database is an interesting source that has already benefitted a lot of research. It has the potential to become even more useful once it has been re-launched, particularly if it manages to address some of the above remaining data gaps. Lastly, sharing some of these experiences in SIPRI's peace operations data collection and database maintenance will hopefully be insightful to researchers who consider undertaking similar endeavours.

Action for protection: what peacekeepers do to protect civilians

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Introduction

According to UN statistics, more than 95 per cent of all peacekeepers currently deployed worldwide work in a mission that is tasked to protect civilians. This is now one of the core functions of UN peacekeeping and the

expectations of what peacekeepers should achieve are often high. Recent quantitative work has examined whether peacekeepers are at all effective in protecting civilians, and the conditions under which they are better able to do so. Higher capacity in terms of larger troop and police contributions, as well as more diverse troop contributions with a broader competence, reduce the number of civilians killed.¹ These characteristics are enabling factors that provide the limitations for the missions and determine what it potentially can do. However, they do not tell us what peacekeepers actually do with these capabilities on the ground.

A protection of civilians (PoC) mandate can lead to different operational activities on the ground. As shown by Holt and Taylor in their comprehensive assessment of four missions with PoC mandates, there are considerable variations in terms of what missions do to protect civilians.² For example, some missions have particular PoC units that organize PoC activities among military and civilian units and assess the needs for protection. Other missions do not have an explicit PoC strategy. Missions also vary to the extent they prioritize PoC. As highlighted by Diehl and Druckman, some peacekeeping missions have a great number of tasks that they are supposed to carry out.³ While some missions see PoC as their main task, others see it as something they do in addition to other tasks if capacity allows it. These mandates are extremely challenging; not only because it is a very difficult task, but also because they push the boundaries of the three pillars of peacekeeping – consent, impartiality, and the use of force. If we are interested in understanding how peacekeeping works – or does not work – to protect civilians, we need to improve our data on what peacekeepers do once deployed.

Recording what peacekeepers do

While data on peacekeeping has for long been quite limited, there are several recent and ongoing efforts of collecting new systematic data. A few of those data collection efforts aim to recording what peacekeepers do. The PKOLED records peacekeeping events based on Reports of the Secretary-General (henceforth SG reports).⁴ Based on these data, Dorussen and Gizelis analyze the impact of peacekeeping policies – in particular whether they aim at strengthening the central government.⁵ Likewise, Smidt codes peacebuilding activities by the peacekeeping missions around elections using SG reports.⁶ In addition to these datasets that focus mainly on

¹Hultman, Kathman, and Shannon, "United Nations Peacekeeping"; Bove and Ruggeri, "Different Kinds of Blue."

²Holt and Taylor, *Protecting Civilians*.

³Diehl and Druckman, *Evaluating Peace Operations*.

⁴See Dorussen and Ruggeri, "Peacekeeping Events," in this issue.

⁵Dorussen and Gizelis, "Into the Lion's Den."

⁶Smidt, "What Do Peacekeepers Do."

peacekeeping policy or activities, Lindberg Bromley codes violent interactions directly involving peacekeepers, thus providing a systematic depiction of the use of force in peace operations.⁷ Those data are collected primarily using news sources.

Adding to these data initiatives, I am interested in identifying what peacekeepers do with regards to PoC. Within my project on peacekeeping and civilian protection, we have gone through 273 SG reports of all UN missions with a PoC mandate (2000–13) and identified a number of activities that peacekeepers carry out to the end of civilian protection.⁸ These activities can be categorized into three main types, as suggested by Hunt and Bellamy, namely direct protection, indirect protection, and capacity-building.⁹ Here I will briefly discuss the types of activities that peacekeepers engage in and that are reported in these SG reports.

Some reported peacekeeping activities relate directly to PoC. These include *patrols* in areas where there is a discernible risk of violence against the civilian population and the provision of *shelter* for civilians that are escaping ongoing killing campaigns by armed actors. Another important action that can signal credible commitment to civilian protection is the *redeployment* of troops within the country to areas where there risk of civilian atrocities is intensified, as well as military operations to stabilize an area. While these activities all refer to military action in some way, they reflect different mechanisms through which peacekeeping can influence the behavior of armed actors and improve security for the civilian population.

Other activities may serve to improve protection more indirectly, such as human rights *monitoring and reporting*, which can inform the military and the police in their preventive work as well as naming and shaming of perpetrators. *Disarmament* of armed actors can reduce the immediate threat to civilians as well as reduce the number of guns available to armed actors. Some missions provide military escorts to *humanitarian assistance*, which may enable other actors to work towards protection and addressing the needs of the civilian population. Peacekeepers also engage in different forms of *community outreach* activities, which may indirectly serve protection.

There are also more long-term strategies towards building security, such as providing *training and advice* to military and police forces as well as supporting the *rule of law*. Such activities are intended to rebuild the capacity of domestic institutions and enable the withdrawal of UN forces.

The fact that these types of activities are carried out by peacekeepers is not new information. However, knowing that something occurs does not mean that we know how when and where it occurs. By systematically collecting

⁷Lindberg Bromley, "Introducing the UCDP Peacemakers at Risk."

⁸A special thanks to Sayra van den Berg for her valuable research assistance.

⁹Hunt and Bellamy, "Mainstreaming the Responsibility to Protect."

information about when different types of activities are carried out, and how missions vary in their portfolio of protection activities, we are able to address new questions about peacekeeping mechanisms and refine our theories of how peacekeeping works. For example, it is possible to evaluate the implications of more robust tactics for effective management of violence in the short term as well as for mission success in the long term. It would also enable an analysis of what factors determine the types of activities that missions engage in; how important are developments in the conflict compared to the mission leadership?¹⁰

The known unknowns: challenges of data collection

Systematically coding PKO activities from SG reports certainly carry some challenges. Apart from the general challenges of coding high-quality data, there are some shortcomings in terms of what is reported in the SG reports.¹¹ First of all, not all actions are reported. The reports are selective in their description of what the missions have done in the period covered by the report. They are also biased, since these are descriptions of what the missions themselves think are the most important things they have done and achieved. On the positive side, the reports are likely to include information on the most common and the most formative activities carried out. Hence, we should be able to capture the most important trends over time and across missions. At the same time we are less able to get at the variations in behavior on the tactical level, and it may be these subtle variations in behavior on the ground that really matter for how peacekeepers are perceived among the local population and the warring actors. These nuances are better explored through other types of data collection.

Second, the reports provide limited information about the scope of activities and the intensity of various actions. For example, while a report may say that the mission carried out patrols in a particular area, it would rarely provide specific information about how many troops participated in the patrol, or how many hours the patrols lasted. Likewise, a report may describe that the mission has engaged in disarmament, but not specify how many weapons were destroyed. This is problematic if the scope or intensity of these activities is what really matters. However, data collected from the reports can provide us with a first comparison of what missions do, before moving into the more detailed comparisons that would require additional data collection.

Since most forms of data collection have different shortcomings, the way forward is to combine different types of data. Therefore it is encouraging to

¹⁰Bove and Ruggeri, "What Do we Know."

¹¹For a good analysis of problems of coding peacekeeping events data, see Ruggeri, Gizelis, and Dorussen, "Events Data."

see the advancement in the field of peacekeeping studies towards more and better data – and with that, the ability to address new important questions about when and how peacekeeping works.

Peacekeeping event data: determining the place and space of peacekeeping

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Introduction

Recent literature on peacekeeping recognizes the importance of local conditions as determinants of the ‘space for peace’ and, at the same time, treats ‘bottom-up’ peacekeeping as a central criterion for its effectiveness.¹ Accordingly, we have collected event data to analyze the impact of peacekeeping at a highly disaggregate, or local/subnational, level. Peacekeeping events are defined as data points where peacekeepers are either actors or targets of an action at a specific location and time point. Ideally time and place are recorded at the highest precision – indicating exact longitude and latitude as well as exact time of day – but often such precision remains elusive. Regardless, peacekeeping event data help to identify *where* peacekeepers are deployed, *what* they do, *with whom* they interact, as well as the *quality* of the interaction.

We have engaged in four efforts to identify peacekeeping events: Peacekeeping Location Event Data (PKOLED),² a pilot study to (semi)automate such coding in Automated Peacekeeping Events, PKO Deployment data (PKODEP)³ and Peacekeeping Governance data (PKOGOV).⁴ The data have provided a better understanding of the local dimensions of peacekeeping, and helped to bridge the divide between quantitative comparative research and ethnographic case studies. At the same time, the coding and management of event data pose some clear challenges. Also conceptually, event data necessitate a careful assessment of the salient spatial features of peacekeeping.

Hence, we differentiate between the *place* and *space* of peacekeeping next. Secondly we briefly visualize geo-referenced peacekeeping events to highlight key features. Thirdly we summarize the key findings of previous research, and

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¹Autesserre, “Going Micro.”

²Dorussen and Ruggeri, “Introducing PKOLED.”

³Ruggeri, Dorussen, and Gizelis, “On the Frontline Every Day?”

⁴Dorussen and Gizelis, “Into the Lion’s Den.”

conclude by discussing weaknesses in existing data and suggesting avenues for future research.

The place and space of peacekeeping

To comprehend social phenomena requires ‘understanding the arrangements of particular social actors in particular social times and places ... Social facts are *located*’.⁵ Accordingly local peacekeeping recognizes the importance of activities throughout the area of operations and thus corrects for a biased focus on a country’s capital. Local peacekeeping emphasizes interactions between peacekeepers and locals; for example, when peacekeepers mediate in local disputes. At the same time, local peacekeeping is not necessarily bottom-up peacekeeping; for example, when the implementation of centrally agreed peace requires peacekeepers to monitor military activities at particular localities. Recognizing these distinctions, it is useful to separate the concept of locality as *place* from social *space* and to link each to unique conflict and conflict resolution mechanisms, as well as to distinct roles for peacekeepers. The basic idea is not particularly new and is well known in geography. However, the implications for our understanding of peacekeeping and what specific peacekeeping event data are most relevant are not generally appreciated. Spatial thinking is ‘about where things are or where they happen, and it is especially about where they are in relation to others’.⁶

The reasons for why a conflict erupts at a particular place are not necessarily local, or confined to that space. Localities (*places*) are more susceptible to conflict if they are either strategically valuable or contested.⁷ However, local grievances and agendas also create *spaces* for conflict.⁸ Support of civilians for either rebels or government has often less to do with (national) policy or ideology, but instead is motivated by personal grievances and the prospect of personal gains. If so, civil war becomes a pretext to settle what are basically local disputes. Hence, peacekeepers support peace agreements via enforcement, credible commitment, deterrence and re-assurance.⁹ Note that the first two mechanisms emphasize features of place while the latter two focus on space.

By means of monitoring and reporting on actions ‘on the ground’, peacekeepers may enable the government and rebels to credibly commit to a peace agreement. The presence of peacekeepers in specific localities matters because it binds leaders to act locally in line with centrally agreed principles. Further,

⁵Abbott, “Of Time and Space,” 1152.

⁶Logan, “Making a Place for Space,” 508.

⁷Cederman, Gleditsch, and Buhaug, *Inequality, Grievances, and Civil War*.

⁸Kalyvas, *The Logic of Violence*.

⁹Fortna, *Does Peacekeeping Work?*

peace agreements can pose moral hazard problems in that they create new opportunities for conflict, for example, when disarmament, demobilization and reintegration (DDR) or security sector reform (SSR) processes impact on the relative military capabilities of government and rebel forces. Peacekeeping event data can help to identify where peacekeepers are deployed to monitor the separation of troops or their demobilization. Peacekeepers can also substitute for lack of effective control by elites. Peacekeepers fill the power vacuum that prevails in the aftermath of armed conflict when governments often lack capacity to effectively control the whole country and to deal decisively with actors that have remained outside the peace process.

At the same time peacekeeping can address local conflicts: peacekeepers need to recognize tensions, provide early warning, and increase awareness that conflict often persists in parts of the country. Here, peacekeepers are called upon to engage with local conflict dynamics, or the local as social *space*. Providing accurate information again plays an important role in dealing with local conflict, but peacekeepers also regularly mediate in local conflicts using a broad set of mediation techniques, including gathering information, meeting separately or collectively with disputants. Finally, peacekeepers may deter (or prevent) the onset of local conflict when their presence and actions discourage parties to use force. UN Peace Operations have shifted from observing ceasefires and traditional peacekeeping (which typically requires strict neutrality) to active engagement with the fighting parties. Peacekeepers can deter the resumption of fighting if patrolling demonstrates effective control. During the conflict, elites tend to encourage, mobilize and arm grassroots groups that often fight alongside 'regular' troops. Such grassroots organizations can retain a strong local identity and powerbase. Robust peacekeeping can however deter the use of violence by spoiler or renegade factions

To appreciate the value and limitations of peacekeeping along these various dimensions requires highly detailed data. The promise of peacekeeping event data is to identify not only the presence (and size) of peacekeeping deployment locally, but also with whom peacekeepers interact and in what capacity.

Disaggregating peacekeeping

Most of the quantitative literature on peacekeeping that developed in the 2000s¹⁰ used country (or conflict) as the main analytical unit. As we have just argued, theories of peacekeeping imply a different analytical granularity, more disaggregated in terms of actors, strategic timing and geographical operations. More recently, the quantitative study of peacekeeping has moved to a

¹⁰See Doyle and Sambanis, *Making War and Building Peace*; Fortna, *Does Peacekeeping Work?*

more disaggregated temporal analysis using monthly dynamics and mission size¹¹ and considering the composition of particular missions.¹²

Our collections of event data contribute to a further disaggregation of UN peacekeeping data to the subnational level and with temporal variation. The event data mainly cover UN mission in Africa between 1989 and 2006.¹³ As an illustration, [Figure 1](#) provides a map of Angola using data from PKOLED and PKODEP. The red dots on the left-side map identify PKOLED events where UN peacekeepers were directly involved as actors or targets of cooperative or conflictual events. The hollow blue squares indicate where the peacekeepers were observing cooperative or conflictual events.¹⁴

PKODEP contains information about the deployment of UN peacekeepers subnationally for all UN missions in Africa, including information on the size of deployment and the variation over time. In [Figure 1](#), the right-side map shows where peacekeepers were deployed. Here, the size of the circles is a function of their local deployment size.

[Figure 2](#) combines information from both datasets. The blue lines are density function based on PKODEP to indicate the spatial reach of the peacekeeper deployment. The red dots are the PKOLED events, where the transparency of the dots is a function of the number of event at a specific location. As to be expected, peacekeeping events (PKOLED) overlap with the deployment of peacekeepers (PKODEP). However, and quite interestingly, there are also many instances where peacekeeping events are far from the areas of deployment. PKOLED and PKODEP thus appear to present different information about local peacekeeping.

Key findings

Based on the various projects introduced above, our analyses of the peacekeeping event data provide a fairly coherent picture. First of all, UN peacekeeping remains predominantly top-down. Peacekeepers engage more, and more cooperatively, with government (or central) authorities; in particular, if the UN rebuilds central administration.¹⁵ Collaboration with rebel authorities is more problematic; particularly when the UN is seen as replacing central authority.

We have also found that relatively weak rebel groups (compared to the central government) are more cooperative towards larger UN peacekeeping

¹¹See Hultman, Kathman, and Shannon, "United Nations Peacekeeping"; Hultman, Kathman and Shannon, "Beyond Keeping Peace."

¹²Bove and Ruggeri, "Kinds of Blue."

¹³PKOLED covers all UN mission after 1989 until 2006.

¹⁴PKOLED includes further variables identifying different typologies of actions as well as coding precision in terms of temporal and geographical information.

¹⁵Dorussen and Gizelis, "Into the Lion's Den."

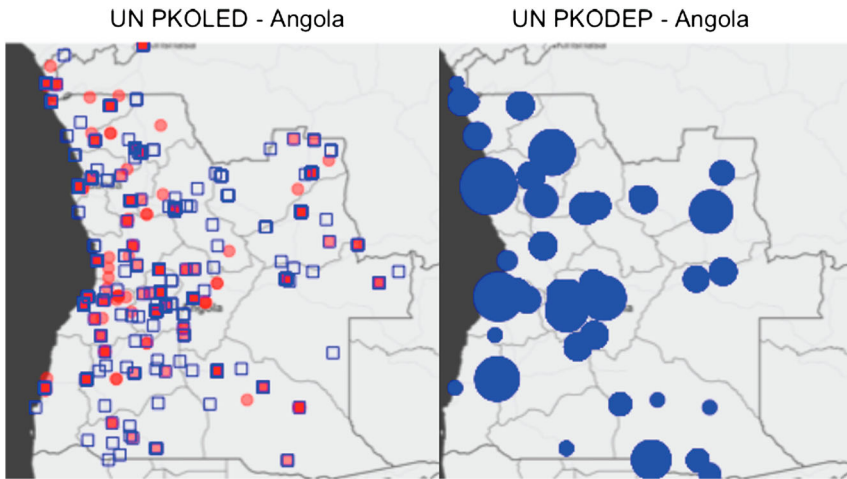


Figure 1. Peacekeeping events (PKOLED) and deployment (PKODEP) in Angola 1989–99. Notes: Left figure: red dots indicate peacekeeping events with direct UN PKO involvement, blue squares are events where UN PKO observed events. Right figure: blue dots, UN PKO deployment relative to size.

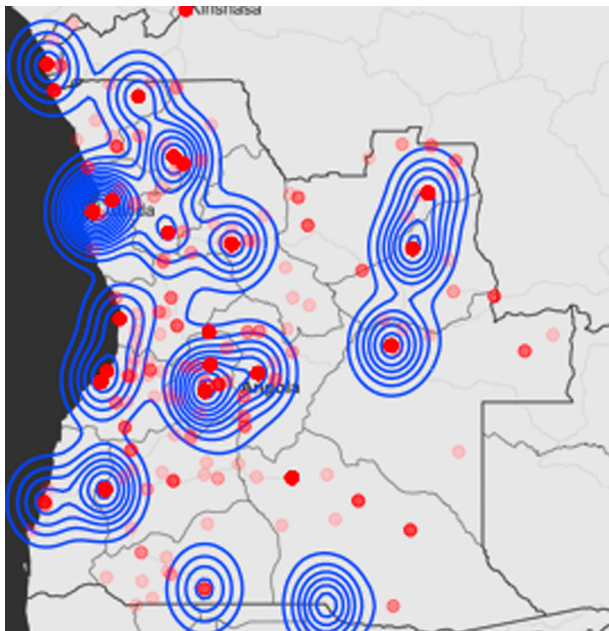


Figure 2. Peacekeeping events (PKOLED) and deployment (PKODEP) in Angola 1989–99. Note: density probabilities of deployment (PKODEP) in blue and peacekeeping events (PKOLED) in red.

missions, possibly because they offer effective protection.¹⁶ Here we were able to evaluate the role of power relations between incumbent and rebels vis-à-vis the UN peacekeepers creating data events with monthly variation and coding cooperative actions toward the peacekeepers.

Turning to the subnational deployment of peacekeepers, we find that peacekeepers are deployed to conflict areas within countries, but with a considerable time delay. They also tend to deploy near urban areas. These findings rely on geo-referenced information on UN deployment (PKODEP) in African UN missions in between 1989 and 2006.¹⁷ Finally, even controlling for selection bias in deployment and interaction, peacekeepers tend to control conflict locally, but we have found no evidence that they are able to prevent local conflict. Peacekeepers are 'effective' locally already with modest deployment, which makes peacekeeping clearly distinct from counter-insurgency operations.¹⁸

Discussion and future research

The different peacekeeping event data we have collected share a number of features and possible limitations. First of all, they focus on UN peacekeeping and rely predominantly on reports of the UN Secretary General. We recognize that regional organizations increasingly participate in peacekeeping, and the responsibility for peacekeeping is regularly shared between the UN and regional organizations, such as the EU, AU and Organization of American States (OAS).¹⁹ Peacekeeping events are now also more widely reported and access to local media has improved. Social media are potentially a further source of valuable information. On the balance, we are yet to be convinced that the 'noise-to-information' ratio justifies a coding of all these sources, but given the advances in (semi-)automated coding our original decisions seem overly restrictive.

Secondly, the various dataset all rely on hand coding. The data are quite detailed in identifying actors and activities, but unfortunately much less so in identifying place and time. Intercoder reliability, in particular, with regard to identifying unique events, has proven to be a serious concern.²⁰ More practically, updating and maintaining data has been challenging. Currently, the data tend to cover the period 1989–2006 with only the deployment data more updated. In our opinion, (semi-)automated coding of peacekeeping events is promising. We were able to develop dictionaries that result in a 70–80 per cent accuracy in identifying events. Given the increasing interest

¹⁶Ruggeri, Gizelis, and Dorussen, "Managing Mistrust."

¹⁷Ruggeri, Dorussen, and Gizelis, "On the Frontline Every Day?"

¹⁸Ruggeri, Dorussen, and Gizelis, "Winning the Peace Locally."

¹⁹See in this issue van der Lijn and Smit. They highlight the problems associated with collection of non-UN PKO data.

²⁰Ruggeri, Gizelis, and Dorussen, "Events Data."

in peacekeeping event data, this may well prove to be a fruitful avenue for future collaboration.

Thirdly, the peacekeeping event data are geocoded (although with varying precision) allowing them to match to data-grids (such as the PRIO-grid²¹). The obvious advantage is that it allows researchers to link peacekeeping data with other geo-referenced data on terrain, demographics and conflict.

In our opinion and given the salience of debate between macro and micro dynamics of conflict resolution, as well as the need to distinguish between the space and place of local peacekeeping, more disaggregated data are not just useful but necessary. Peacekeeping event data help to identify the presence (and size) of peacekeeping deployment locally, but also with whom peacekeepers interact and in what capacity. The full potential of our data is yet to be explored. However, it is promising that we have now data (PKOLED) identifying when peacekeepers interact with local, rebel and central authorities and whether peacekeepers are directly involved or mainly observers. PKOLED further identifies a large number of events or activities that can be aggregated into meaningful categories.²² Further, PKODEP identifies where peacekeepers are deployed, their size and who they are. Future challenges include how to semi-automate data collection in order to improve data quality, provide data updates and extend these geo-referenced data event also to other peacekeeping mission from non-UN organizations.

Peacekeeping research with non-peacekeeping data

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Behavioral studies of peacekeeping that rely on large N data analyses are relatively recent, at least compared to studies of war, conflict, and international organizations.¹ Data gathering can be a time consuming process and usually requires a driving theoretical orientation. For example, data on alliances and power are derived from a realist theoretical framework. The availability of data specifically devoted to peace operations was lacking, and there was no consensus or debates on a theoretical approach to study peacekeeping.² Indeed, the extent to which liberalism was the predominant theoretical

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²¹Tollefsen, Strand, and Bugaug, "PRIO-GRID."

²²Based on the PKOLED codebook, we were able to identify 'verbs' to build dictionaries to recover the aggregate categories in automated text-coding with a reasonable (70–80 per cent) precision.

¹See Diehl, "Behavioral Studies."

²This is discussed in Fetherston, *Toward a Theory* and Paris, "Broadening the Study."

lens was more as a target of criticism than a way to study peacekeeping empirically.

As is evident from the other essays in this issue, there has been an upsurge in peacekeeping data collection. Nevertheless, peacekeeping scholars still rely on existing data collections about other phenomena even as these cases and variables were originally designed for other purposes. What variables from non-peacekeeping data sets are most frequently employed? To what extent do such data sets map well with the foci and purposes of peacekeeping research? In what areas might existing data be better used in peacekeeping research?

Non-peacekeeping data: general patterns

Perhaps not surprisingly, data based analyses on peacekeeping have tended to have original data collection with respect to the independent or predictor variables. These have often been binary variables about the presence of peacekeeping forces or not (yes/no)³ or in a slightly more sophisticated fashion with divisions for the categories of mission performed.⁴ Preexisting independent variables unrelated to peacekeeping are often used as control variables in statistical equations to account for other factors that might influence outcomes (e.g. the renewal of violence) and to allow analysts to gauge the relative effects of those factors vis-à-vis peacekeeping.⁵ Providing one chooses the appropriate controls, this is a valid, even desirable, research strategy.⁶

Most commonly, non-peacekeeping data are used with respect to the dependent or outcome variables of interest, depending on the focus of the study. Some past studies have used peacekeeping data to predict troop or financial contributions to peacekeeping operations,⁷ or the length of operations,⁸ and such data are easily accessible, most commonly for UN operations. Nevertheless, the predominant practice for non-peacekeeping data has come when the concern is with “peace duration” or the time from a cease-fire to the onset of renewed violence or war. In those studies, scholars have relied on conflict data sets such as those from the Correlates of War Project⁹ and the Uppsala Data Project¹⁰ respectively. Normally, the outcome variable is measured in terms of months or years, with the conflict data providing the end point for the event in question. There are several

³For example, Mason and others, “When Civil Wars Recur.”

⁴For example, Fortna, *Does Peacekeeping Work?*

⁵For example, Greig and Diehl, “The Peacekeeping–Peacemaking Dilemma.”

⁶For an alternative view, see Clarke, “More Phantom than Menace.”

⁷For example, Shimizu and Sandler, “Peacekeeping and Burden Sharing.”

⁸For example, Wright and Greig, “Staying the Course.”

⁹Correlates of War (COW) Project, <http://www.correlatesofwar.org/>, specifically the data sets on interstate and civil wars.

¹⁰Uppsala Conflict Data Project (UCDP), <http://www.pcr.uu.se/research/UCDP/>, specifically the armed conflict data sets.

problems associated with the use of such data for peacekeeping analyses, although some recent refinements have made these less severe.

Death counts

In determining whether war or substantial violence has reoccurred, conflict data sets typically rely on a fatality count. When that number exceeds a given threshold (the most popular data sets have 25 and 1,000 deaths as thresholds respectively),¹¹ war or violence is coded as occurring and the peacekeeping operation is said to have failed at that point. The data on war and violence renewal comes from some of the most respected data projects in the world, known for exacting standards and widely used.¹²

There are two problems with this for peacekeeping purposes. First, the threshold for a situation to be labeled a war or renewed violence is very high for some collections; the COW standard of 1,000 deaths in a given year is substantial. Is a peace operation really successful if there is substantial violence, but it falls short of that threshold? Should cases in which few or no casualties occurred be classified the same – as successful – as operations in which several hundred fatalities occurred during the operation? Clearly this is a problem for studies of conflict reoccurrence more generally, but is particularly pertinent for attempts to assess the influence of peacekeeping operations. A solution to this would be to use the raw number of deaths (interval measure) rather than a dichotomous distinction (yes/no for civil war recurrence). Unfortunately, war deaths are often imprecise, and data for cases short of the war threshold might be unavailable. One could also use the lower 25 death standard from the UCDP collection. This is more likely to pick up lower-level conflict (<1000 deaths) that analysts would regard as serious. Nevertheless, it also risks declaring an operation to be a failure if there is a relatively small number of isolated incidents.

Some scholars use casualties or violence incurred by peacekeeping soldiers as an alternative or surrogate for violent activity; these are usually reported and widely available.¹³ Peacekeeping soldier deaths, although small by any standard, have increased over time. This is likely a product of deploying more troops and adopting more robust mandates as well as perhaps the more dangerous contexts to which they have been deployed. Thus, using data on peacekeeping-specific fatalities to indicate effectiveness incorrectly leads to the conclusion that recent operations are less successful, an inference that does not take into account operational conditions. In addition, peacekeeping fatalities do not map well conceptually or theoretically with the purpose of the mission – peace operations are supposed to limit the fatalities

¹¹COW and Ibid.

¹²In the interests of full disclosure, the author served as Director of the COW Project for seven years.

¹³For example, Salverda, "Blue Helmets as Targets."

of others, not themselves, as a first priority. Thus, limiting peacekeeping deaths, even controlling for “selection effects”, might not be a good indicator of mission success.

A second, and more serious problem, is that fatality counts have traditionally been only those that are “battle-related”, that is between militaries of state actors or involving organized groups in civil wars. Excluded are civilian deaths and/or those from militias, terrorist acts, irregular forces, and the like. Increasingly, however, peace operations are charged with protecting civilians from harm and in facilitating the rule of law. The absence of traditional civil war engagement, as reflected in existing data sets, will be misleading on whether peace operations in post-conflict contexts are effective in their mandates. There has been some recent improvement in data, with scholars now able to consider civilian casualties.¹⁴ At present there are some temporal and spatial limitations on such data.¹⁵ Data exist only for Africa, the Middle East, and Asia and only for the period 1989 and beyond; although this covers a majority of UN operations, it does limit the scope of analyses.

Data on interstate and civil wars, as well as other serious violence, have also been traditionally gathered on a yearly basis; that is, the total number of deaths is recorded for a calendar year. Studies of peace duration look at the months or years from the time of peacekeeping deployment to war renewal, with longer periods considered more successful. Normally, such aggregation might be considered a disadvantage as it is hard to tie, in a causal sense, success or failure at a particular point in time to the peace operation. Nevertheless, this is not necessarily a serious limitation in peacekeeping studies. The mandates of most peace operations do not vary substantially on a monthly or yearly basis in their missions, size, and other characteristics thought to influence success.¹⁶ Indeed, over the life of an operation, peacekeeping does usually not exhibit many changes (that is, in a statistical sense, there are no or few time-varying covariates). Accordingly, in those cases holistic assessments of a peace operation focusing peace duration are appropriate and yearly casualty figures to determine war renewal; such data are also suitable for constructing baselines¹⁷ and for controlling for the length of operations in assessment. In some operations, and perhaps increasingly so, however, there are mandate shifts and substantial changes in force composition that have an impact on outcomes. In those instances, yearly measures of outcomes mask what might have prompted the modifications in the operation, and the measures are also misleading in tracking the immediate impact of the operational

¹⁴For example, see Hultman, Kathman, and Shannon, “United Nations Peacekeeping.”

¹⁵See Uppsala Conflict Data Project, UCDP Georeferenced Event Dataset http://www.pcr.uu.se/research/ucdp/datasets/ucdp_ged/ and UCDP One-sided Violence Dataset. http://www.pcr.uu.se/research/ucdp/datasets/ucdp_one-sided_violence_dataset/.

¹⁶See Kathman above for discussion on variation in force size across missions, and Bove, Ruggeri, and Zwetsloot on variation on mission leadership.

¹⁷For a discussion of the importance of baselines, see Diehl and Druckman, *Evaluating Peace Operations*.

changes that resulted. Monthly data on violence and other outcomes of interest will pick up on some of this activity, but this still leaves the problem of many data points in which there is no change in peacekeeping characteristics and variation in outcomes (indeed, monthly data on outcomes is likely to produce more variation in outcomes).

Where deaths occur and where peacekeepers are

Not only are conflict data aggregated across time (a calendar month or year), but they are also combined across space; that is, deaths from war are summed, provided that they occur within the country in question; this is without regard to where they occurred vis-à-vis peacekeeper deployment. Deaths might occur in areas where no peacekeepers were deployed, whereas few deaths and little violence took place where peacekeepers sought to keep the peace; this would provide evidence for peacekeeping effectiveness. Another possibility is a scenario in which conflict is reduced in areas of deployment, but diffused or increased to other areas that are absent of peacekeepers; this leads to a mixed verdict on peacekeeping effectiveness. Finally, there is the case in which there is no reduction or an increase in violence equal to or more than if no operation had been deployed, indicative of failure. With most existing data sets, it is not possible to distinguish between these three scenarios, and therefore the potential for misleading conclusions is present.

With the advent of geocoded data, there have been some advances in placing specific locations to both violent incidents and peacekeeping deployment.¹⁸ This allows analysts to cross-reference whether peacekeepers are sent to areas where violence is prevalent¹⁹ and whether violence is reduced in those areas following deployment. One limitation is that such data are largely confined to a few operations in Africa, which may or may not be representative of peace operations more generally. Given the general difficulty and expense of collecting such data, as well as the inherent problems of doing so for historical operations, it is unlikely that geocoded data will be available for all UN operations, much less all peace operations carried out by another agent.²⁰

Some untapped data resources

The above discussion implies that the use of non-peacekeeping data in peace operation can be problematic, and in some instances this is

¹⁸In particular, see the PKOLED data and Dorussen, "Introducing PKOLED".

¹⁹Powers, Reeder, and Townsen, "Hot Spot Peacekeeping."

²⁰Costalli, "Does Peacekeeping Work?"

accurate. Nevertheless, there are numerous cases in which other non-peacekeeping data could and should be employed to answer important research questions.

If the focus moves beyond the conflict abatement function of peace operations, there are a range of other missions and effects that can be examined. Diehl and Druckman²¹ present a series of missions (e.g. humanitarian assistance, promoting the rule of law) that are part of contemporary peace operation mandates. For each of these missions, they specify a series of indicators, many of them suitable for data collection and several already available in extant data collections. For example, trends in the infant mortality rate could be used to assess the impact of humanitarian assistance. Unintended consequences of peace operations,²² a recent focus of concern, might be measured by reference to a series of economic indicators concerning domestic market activity and commodity prices. Scholars already use election data and democracy indicators to assess the impact of peace operation missions on election supervision and democratization.²³ There are a number of valuable research concerns to be addressed, and existing data are available to help answer them. Peacekeeping-specific data in these instances would be redundant of existing collections or make little sense as many of the dependent variables involve local conditions following a peace operation.

There are some limitations to these kinds of analyses, more so in drawing inferences than with respect to their applicability to peace operations per se. Many of the newer peace missions involve long term processes (e.g. development, civil society institutions). There are time series data for them, but the problem arises in assessing the impact of a short-term peace operation on a long term process.²⁴ Time and intervening variables will complicate conclusions about the impact of peace operations, proving that even having valid and appropriate data does not obviate all research problems.

Acknowledgements

The author would like to thank Jacob Kathman, Kyle Beardsley, and Govinda Clayton for their comments and suggestions.

²¹Note that with a liberal definition of what constitutes a peace operation, Diehl and Balas, *Peace Operations*, count 188 such operations in the period 1948–2012.

²²Aoi, de Coning, and Thakur, *Unintended Consequences of Peacekeeping*.

²³For example, see Fortna and Huang, "Democratization after Civil War."

²⁴Most post-cold war operations are relatively short, see Wright and Greig, "Staying the Course."

UN peacekeeping data

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What do we know?

This essay focuses exclusively on data on UN peacekeeping and the research opportunities afforded by the organization's prolific paper trail. I first outline data that is already systematically collected and consistently made public by the UN. I survey several projects mining these data sources and identify opportunities for expanding collection efforts in the future. These might be thought of as the "known knows" of UN peacekeeping data. I next turn to the "known *unknowns*", the categories of data that are only episodically collected, inconsistently published, or entirely unavailable. In this section, I work to differentiate between classified source data that the UN is unlikely to ever make public and information that is not currently consistently published for more mundane reasons. The latter subset, I argue, is a particularly fruitful area of focus. I conclude by briefly discussing *why* the UN and surrounding research communities would mutually benefit from more publically available information.

"Known knows": the UN paper trail

The UN's peacekeeping website publishes monthly and annual factsheets on personnel figures and peacekeeper fatalities. Given the PDF formatting, using this data has historically been cumbersome. Fortunately, a number of academic and policy projects have translated the factsheet archives into datasets, including Jacob Kathman's personnel data (described in greater detail in this issue), UCDP's ongoing *Peacekeepers at Risk* project, and the International Peace Institute's (IPI) *Peacekeeping Database*.¹ These datasets have facilitated more detailed research on trends in the provision of UN peacekeepers and analysis of mission success.²

Beyond the factsheets, the UN's prolific and relatively transparent reporting mechanisms provide additional opportunities for systematic data collection. Public documents of interest include annual budgets, mission mandates, and Secretary General (SG) reports to the Security Council. Existing peacekeeping datasets have only begun to mine this extensive paper trail.

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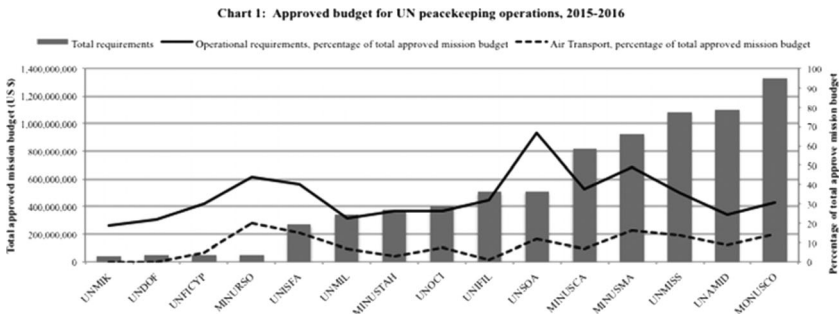
¹Kathman, "UN Peacekeeping Personnel Commitments"; Perry and Smith, "Trends in Uniformed Contributions"; Lindberg, "Peacemakers at Risk."

²For example, Hultman, Kathman, and Shannon, "Beyond Keeping Peace"; Bellamy and Williams, *Providing Peacekeepers*; Bove and Ruggeri, "Kinds of Blue"; and Benson and Kathman "UN Bias and Force Commitments."

Table 1 summarizes key reporting documents, identifies several potential indicators included within them, and lists current datasets and ongoing projects working to encode them.

Financial reports

Researchers interested in the financing of peacekeeping have used the *Annual budget*, *Approved resources* annexes, and *Status of Contributions* reports to analyse trends in mission funding and the dynamics of “burden-sharing”.³ IPI’s newest addition to its *Peacekeeping Database* compiles the monthly, assessed contributions to UN peace operations by Member State, from 1994 to 2016. Additional information that is already systematically provided in these UN reports could be incorporated into such a dataset in the future. The annual approved budget reports, for example, disaggregate operational costs. Katrina Coleman leverages this breakdown to highlight significant variation in the average apportionment per authorized personnel in the five largest UN peacekeeping operations.⁴ Similarly, Chart 1 provides a snapshot of the percentage of mission costs going to operations and logistics, as reported in most recent *Approved resources* annex.⁵ Such data points could be valuable as indicators in future quantitative studies.⁶



Notes: United Nations Truce Supervision Organization (UNTSO) and United Nations Military Observer Group in India and Pakistan (UNMOGIP) are still funded in the regular budget. Identifying and accounting for such idiosyncrasies will certainly complicate datasets construction, but these are not insurmountable challenges.

³Shimizu and Sandler, “Peacekeeping and Burden-Sharing”; Gaibulloev, Sandler, and Shimizu, “Demands for UN and Non-UN Peacekeeping”; and Coleman, “Political Economy of UN Peacekeeping.”

⁴For example, military observers cost \$38,933 (on average) in UNAMID versus nearly twice that (\$63,696) in MONUSCO, in 2012–13. Coleman, “Political Economy of UN Peacekeeping,” 8.

⁵UNGA Fifth Committee, “Approved Resources.”

⁶The percentage of mission budgets consumed by operational costs might serve as a proxy for operational difficulty. Tracking a mission’s budget changes over time might capture increasing economies of scale.

Table 1. UN data sources, potential data points, and current databases.

	Sources	Data points	Level of detail	Availability	Databases, already using these sources	
Public, predictably	Factsheets	Personnel	Personnel counts	Mission, type, TCC, mission, month	Monthly, since 2004	<u>Kathman 2013 Personnel Data (1990–2014)</u>
		Gender Fatalities	Gender counts	Mission, type, month	Monthly, since 2006	<u>IPI Peacekeeping Database (1990–2016)</u>
			Fatality counts	Mission, type, nationality, year	Yearly, since 1948	<u>SIPRI Multilateral Peace Operations Database (1993–2015)</u> <u>Peacemakers at Risk (UCDP)</u>
	Approved budgets UNGA, Fifth Committee	Total approved resources Personnel costs Operational costs	Mission, year	At least once a year	<u>Gaibulloev et al. 2009 Contributions to UN Peacekeeping Data (1994–2006)</u> <u>IPI Peacekeeping Database</u> <u>SIPRI Multilateral Peace Operations Database</u>	
	Status of Contributions, UNGA	Advance payable Balance outstanding	Mission, Member State, year	Monthly, 2007–10 Annual, 1950–64, 1972, 1974, 1975–2006	–	
	UNSC Resolutions	“Bias” and “specificity” Mandated time duration SC demands Mandated tasks Mandated personnel level Use of force authority	Mission, variable level of detail	Variable, as mandated	<u>Benson and Kathman 2014 SCR Bias Dataset (1991–2008, select wars)</u> <u>IPI’s Security Council Compliance Database (1989–2006, civil wars)</u> <u>Allen and Yuen 2014 SCR Specificity Dataset (1992–2008, civil wars)</u>	
SG reports to the UNSC	Major PKO events Patrols (sometimes) Deployment (sometimes) (See Table 2)	Mission, variable level of detail	One or several a year, as mandated. *Figures and maps inconsistently	<u>PKOLED Database (1989–2006, all missions)</u> <u>PKOGOV Database (1989–2006, Africa)</u> <u>Hultman (ongoing) Protection of Civilians project (2000–13, all missions)</u> <u>Smidt 2016 Peacebuilding Activities During Election Times project</u>		

(Continued)

Table 1. Continued.

	Sources	Data points	Level of detail	Availability	Databases, already using these sources
Public, occasionally	Deployment maps, Some SG reports and one per mission on GIS site	Deployment	Location, size, and unit type	Unknown	PKODEP Database (1989–2006, missions in Africa) Levin 2015 Sub-national Effectiveness project (1995–2008, select mission)

Notes: Highlighted data points are *not* currently being coded by any existing datasets, but offer potentially fruitful paths in expanding systematic data on UN peace operations.

Underlined datasets are currently publicly available on the organization, journal, or individual's websites.

UN source documents, available at: <http://www.un.org/en/documents/index.html>. Select budget reports, available at <http://www.un.org/en/peacekeeping/operations/financing.shtml#gadocs2>. UN peacekeeping factsheets, available at: <http://www.un.org/en/peacekeeping/resources/statistics/>. A convenient place to find UN SCR is at: <http://www.un.org/en/sc/documents/resolutions/>. A convenient place to find SG reports to the SC is at: <http://www.un.org/en/sc/documents/sgreports/>. The Geospatial Information Section (GIS) makes one map per peacekeeping mission available at: <http://www.un.org/Depts/Cartographic/english/htmain.htm>.

Databases (available, soon to be available, or seek more information at): Kathman 2013 Personnel Data available at: <http://jacobkathman.weebly.com/research.html>. IPI Peacekeeping Database available at <http://www.providingforpeacekeeping.org/contributions/>. SIPRI Multilateral Peace Operations Database is currently unavailable for maintenance, but will return to: <http://www.sipri.org/databases/pko>. More information on the Peacekeepers at Risk project is available at: http://www.pcr.uu.se/research/ucdp/program_overview/current_projects/peacemakers_at_risk/. Gaibulloev et al 2009 Contributions to UN Peacekeeping Data available on the JCR website: <http://www.prio.no/jpr/datasets>. Benson and Kathman 2014 SCR Bias Dataset available at: <http://jacobkathman.weebly.com/research.html>. IPI Security Council Compliance Database available at: <https://www.ipinst.org/2013/12/when-do-civil-war-parties-heed-the-un-findings-from-the-ipi-security-council-compliance-database>. For more information on PKOLED, PKOGOV, and PKODEP, see Dorussen and Ruggeri (this issue), Dorussen “Introducing PKOLED”; Ruggeri, Gizelis, and Dorussen, “On the Frontline”; Ruggeri, Gizelis, and Dorussen, “Winning the Peace Locally”.

Security Council resolutions (SCRs)

Another important source of systematic and public information on UN peacekeeping operations are SCRs. These resolutions mandate mission tasks, authorize personnel levels, set time limits, and create use of force rules. A handful of reports, articles, and papers have used SCRs to investigate levels of armed group compliance with SCR demands, the impact of “bias” on mandated force levels, the determinants of mandate flexibility, and the relationship between levels of sexual violence and Council engagement.⁷ Two projects publically provide their data online. First, the Benson and Kathman data codes SCRs for bias, covering all those related to African civil conflicts from 1991 to 2008.⁸ A recently presented paper mentions an ongoing effort to expand this data to include all civil wars, as part of a *Civil Conflict Resolution* dataset.⁹ Second, IPI’s multiyear *Security Council Compliance* project created a public database that encompasses 617 resolutions, covers 27 civil wars (1989–2006), and specifies 1,988 demands made on conflict parties.¹⁰ These projects illustrate the creative ways that core UN documents might be used to address important research questions. They also highlight the potential gains of increasing coordination in data collection efforts. At minimum, a consistent naming practice across datasets for identifying SCRs would be valuable, to ease merging of these datasets and to support synergistic research agendas.¹¹

SG reports

Finally, the SG’s reports to the Security Council provide a rich, public, and regular source for information on each UN mission. Most reports include standard sections on political developments, the security situation, updates on the implementation of mission tasks, and the state of mission staffing and deployment. Two overlapping projects on UN peacekeeping and peacebuilding have used the SG reports to construct events-based datasets. As Dorussen and Ruggeri describe in greater detail in this forum, the PKOLED project codes reported peacekeeper responses to conflict events, while PKOGO mines SG reports for events pertaining to peace-building policies

⁷Mikulaschek and Perry, “When Do Civil War Parties Heed the UN?”; Benson and Kathman, “UN Bias and Force Commitments”; Allen and Yuen, “UNSC Oversight”; and Benson and Gizelis, “UN SCRs and Sexual Violence.”

⁸The data can be found at: jacobkathman.weebly.com/research.html.

⁹Benson and Gizelis, “UN SCRs and Sexual Violence.”

¹⁰Cockayne, Mikulaschek, and Perry, “UNSC and Civil War”; Mikulaschek and Perry, “Do Civil War Parties Heed the UN? ”

¹¹The ISO standard country codes are a good model. A future integrative project might investigate the effect of mandate flexibility (using Allen and Yuen’s data) on conflict actor compliance with Council demands (using the IPI data).

more broadly.¹² Others have used the documents to identify specific types of peacekeeping activities, including civilian protection and peacebuilding during elections (see Hultman, this forum).¹³ All of these efforts begin to address Severine Autesserre's call for more quantitative research on the micro-level practices of peacekeeping, a subfield previously dominated by qualitative and ethnographic research methods.¹⁴

A word about tradeoffs

Using UN source documents comes with a number of tradeoffs, both in substance and time. The standardized formats and predictable provision of the documents are valuable for collecting consistent data and increasing efficiency in coding. However, relying on the UN to self-report simultaneously risks introducing bias (see also Hultman, this issue).¹⁵ Those working with event data generally advise consulting as many sources as possible to address such bias, systematic secrecy, and uneven coverage.¹⁶ Undoubtedly, however, this significantly increases required research time and resources.

Indeed, the summarized nature and PDF formatting of UN source documents already requires substantial time investment to interpret, or simply to transfer, into datasets. IPI's *Security Council Compliance* multiyear project illustrates one extreme. Thirty PhD students worked as IPI consultants to code resolution demands and levels of armed actor compliance.¹⁷ Not all research projects can afford such manpower. Alternatively, IPI now uses a webscraper to encode the UN factsheets for its *Peacekeeping Database*. What was once a full time job now takes only a few minutes every month to update.¹⁸ While impressive, gains from automation do have limits. A recent comparison of hand- versus machine-coded *event data* in political violence research advises caution and emphasizes the limits of current programs.¹⁹ In sum, the breadth of UN sources publically available offers exciting

¹²See also, Dorussen, "Introducing PKOLED"; Ruggeri, Gizelis, and Dorussen, "Managing Mistrust."

¹³See also, Smidt, "UN Peacekeeping Activities."

¹⁴Autesserre, "Going Micro," 496.

¹⁵See also, Ruggeri, Gizelis, and Dorussen, "Events Data as Bismarck's Sausages?" Here, the scholars acknowledge that SG reports may present the UN "in an overly favorable light", but argue that competing political priorities and public scrutiny mitigate concerns. Further, the project uses an outside source, ReliefWeb, to randomly crosscheck events as a robustness test

¹⁶Salehyan, "Best Practices in the Collection of Conflict Data"; Hensel and Mitchell, "Lessons from the ICOW Project."

¹⁷IPI *Peacekeeping Database*, coding manual, 34.

¹⁸Even as the gains in efficiency are "pretty amazing", IPI's data manager stressed that the process remains "vulnerable to its complexity". A smooth encoding requires that the UN use consistent URLs, that documents are formatted predictably, and, in the event that problems arise, that the manager is able to identify and repair glitches. Personal communications. April 4, 2016.

¹⁹Hammond and Weidmann, "Using Machine-coded Event Data for the Micro-level Study of Political Violence."

paths for creative data extraction, but also requires researchers to think critically about tradeoffs in terms of substance and resources.

“Known unknowns”: limitations and opportunities for expanding data

There are limits to what the UN makes systematically public on its peacekeeping operations. Operating in violent and politically fraught contexts, the UN is understandably unlikely to release strategic data. But there are other categories of data that are not regularly available for more mundane reasons, including: (1) time and personnel constraints, (2) inconsistent internal data collection, and (3) absence of interest from the public and researchers. This section unpacks both subsets of the “known unknowns” of UN data and argues that the latter presents opportunities for future data collection efforts.

Sensitive data

The key vehicles for internal tactical and operational peacekeeping reporting within the UN system are the Situation Reports (SITREPs). SITREPs provide an overview of the main events and developments effecting the mission’s operations. Every UN mission transmits daily a summarized SITREP to New York.²⁰ These SITREPs are classified because they contain “important details of UN operations and other information not in the public domain ... [and] cannot be published, even in edited form, in any open source environment”.²¹

That operational imperatives frequently require levels of secrecy that makes research challenging is certainly not unique to UN peacekeeping.²² Within the UN system, however, there are countervailing pressures to increase transparency on mission actions and performance.²³ These reflect the need to supplement strained monitoring and evaluation resources, as much as a commitment to transparency itself. Indeed, the frequent refrain that the organization must improve information flow and knowledge management on peacekeeping makes it unclear, at times, whether the UN refrains from publishing certain information because it is classified or simply because it struggles to

²⁰For more on reporting requirements, see: DPKO, “SOPs for Reporting”; DPKO/DFS, “UN Force HQ Handbook.”

²¹DPKO, “SOPs for Reporting,” 14. Additionally, Convergne and Snyder outline the particular sensitivities surrounding geospatial UN data. “Making Maps to Make Peace.”

²²For analogous challenges in conflict and terrorism research, see Gleditsch, Metternich, and Ruggeri, “Peace and Conflict Research”; Sandler, “Analytical Study of Terrorism.”

²³For example, OIOS, “Secretariat Evaluation Scorecards,” 6. The internal review concludes, “While appreciating the need for maintaining confidentiality for sensitive issues, DPKO/DFS may want to consider making some [of] its key evaluation results publically available, in order to increase transparency and utility”. The HIPPO report advises that DPKO introduce “regular independent evaluations using external expertise to assist missions through objective assessments of progress,” para 172.

collect and transmit that data itself.²⁴ This partly connects back to the summarized, textual format of SITREPS, which can obscure operational details and make situational awareness and pattern recognition difficult.²⁵

Inconsistently public data

Other categories of peacekeeping data appear only sporadically in the public record. Ten of the 19 SG reports on the UN Mission in South Sudan (UNMISS), for example, provide deployment maps.²⁶ These maps demarcate where the largest contingents are stationed within a host county and designate each unit's size (e.g. battalion or company), nationality, and type (e.g. infantry or medical).²⁷ As Dorrusen and Ruggeri illustrate using their novel PKODEP dataset (this issue),²⁸ mission deployment maps offer a valuable means for geolocating contingents and open new research possibilities for using spatio-temporal models to assess subnational variation in peacekeeping presence and impacts. The public release of backdated maps and regular monthly provision of future maps would greatly facilitate such research. The highly uneven availability of maps currently leaves yearlong gaps in the case of some missions.²⁹

The number of peacekeeping patrols conducted is another new metric recently, if inconsistently, available in select SG reports. Keeping with the UNMISS example, the mission's four most recent reports include exact figures on the number of long-duration, short-duration, dynamic air, and integrated patrols conducted.³⁰ Such numerical detail on the operational routine of peacekeeping missions is invaluable in the move towards quantitatively assessing the *practice* of peacekeeping.

²⁴For more on the UN's data management as a "critical shortage", the need for increased investment in M&E, and the organization's general "data sclerosis", see: DPKO/DFS, "New Horizon Report," 15–16, 27; HIPPO, "Uniting Our Strength," para 172; Expert Panel, "Performance Peacekeeping."

²⁵Expert Panel, "Performance Peacekeeping," 137. The panel explains, "Only summary data are shared in SITREPs, with rich operational details hidden in opaque section-owned spreadsheets, documents and emails ... With only textual data shared ... it is difficult for the mission to maintain an updated view of the state of key indicators".

²⁶S/2012/820; S/2014/158; S/2014/708; S/2014/821; S/2015/118; S/2015/296; S/2015/655; S/2015/902; S/2016/138; S/2016/341.

²⁷In addition, the Geospatial Information Section (GIS) has recently started to sporadically upload maps to its website, providing one map at a time for each mission. See: <http://www.un.org/Depts/Cartographic/english/htmain.htm>.

²⁸See also, forthcoming Ruggeri, Dorrusen, and Gizelis, "On the Frontline Every Day?"; Ruggeri, Dorrusen, and Gizelis, "Winning the Peace Locally."

²⁹In the case of UNMISS, only one deployment map is currently available for all of 2011, none for 2012, and then several each for 2013 and 2014. A GIS officer explained that operational maps "may be accessible once a mission becomes liquidated". How frequently GIS creates maps for internal use remains unclear. Email communications. April 12, 2016.

³⁰S/2015/296, para 33; S/2015/655, para 37; S/2015/902, para 32; S/2016/138, para. 33. Note that the numbers were *not* included in the most recent SG report (2/2016/341). A 2015 audit of patrolling by UNAMID military units serves as a cautionary note that these numbers should be viewed with an appropriately critical eye, sensitive to the potential for bias and misreporting. OIOS, "Audit of Patrolling by Contingents."

Table 2 presents other metrics that appear in at least one SG report on a UN mission within the last year. From their past inclusion in reports, we *know* that the Secretariat can collect this data and that it does not consider it classified. What remains *unknown* is the extent to which that data exists historically and across missions, and whether the Secretariat could prioritize making it consistently public in the future.

Synergetic data flow: or, what's in it for the UN?

The gains to the academic research community from increasing the scope of systematic data on peacekeeping are clear, but what is in it for the UN? One advantage would be increased bandwidth. As a member of DPKO recently stated, people tend to overestimate the capacities of the UN and to assume that, because it is a large organization, it has infinite resources to collect, analyse, and distribute data.³¹ Even beyond constructing useful databases, Jentleson and Ratner identify three potential contributions of policy-relevant scholarship, including diagnostic value, prescriptive value, and lesson drawing.³² All three, however, implicitly assume a baseline flow of sufficiently accurate, timely, and valuable information between the communities.

Two organizations might be instructive in their orientation towards data sharing. First the UN's own Office for the Coordination of Humanitarian Affairs supports two online data platforms, ReliefWeb and the Humanitarian Data Exchange. ReliefWeb "has been the leading source for reliable and timely humanitarian information on global crises and disasters since 1996".³³ The site serves three valuable functions: (1) collect information; (2) deliver content; and (3) enable better decision-making.³⁴ Outside of the UN system, the World Bank made headlines years ago when it began releasing its prized data, giving public access to more than 7,000 datasets.³⁵ Former Bank president Robert Zoelick explained the decision by stating, "We do not have a monopoly on the answers ... For too long, prescriptions have flowed one way".³⁶ One close observer of UN data emphasized that while big data projects like these are certainly "sleek and new and attractive", when it comes to peacekeeping data "plain boring but searchable statistics" would be immensely helpful.³⁷ "Simply putting them all in one place", he

³¹Personal communications, April 4, 2016. In making this point, it is useful to remember that while the UN and NATO deploy comparable numbers of forces abroad, the latter employs *four times* the number of headquarter staff. Smith and Boutellis, "Rethinking Force Generation," 7.

³²Jentleson and Ratner, "Bridging the Beltway–Ivory Tower Gap," 9.

³³More at: <http://reliefweb.int/about>.

³⁴OCHA also manages the Humanitarian Data Exchange, an open platform for sharing data that houses 4,000 datasets, 244 locations, 729 sources. More at: <https://data.hdx.rwllabs.org/>.

³⁵Stephanie Strom, "World Bank is Opening its Treasure Chest of Data." For more, see: <http://data.worldbank.org/node/8>.

³⁶Strom, "World Bank is Opening its Treasure Chest of Data."

³⁷Personal communications with IPI data manager. April 4, 2016.

Table 2. Select “known unknowns”, figures and metrics *sometimes* included in SG reports.

Mission troop deployment maps	<i>Counts of ...</i>
Mission personnel and staff vacancy rates	Children reached through protective services
Numbers of operating bases, temporary bases, country support bases constructed and equipped	Children treated through vaccination campaigns
Number of mission helicopters, vehicles, boats, barges	Schools supported through teacher training, meal provision, school materials, scholarships (with World Food Program [WFP], United Nations International Children’s Emergency Fund [UNICEF])
Reports of SEA allegations	Women and girls abducted, subjected to sexual violence
	Verified incidents of human rights violations or abuses
<i>Counts of ...</i>	United Nations Human Rights Council [UNHRC] human rights recommendations accepted by host and government
Patrols conducted, daily, foot, joint, long-duration, air	Killings and cases of tortured, registered by Office of the UN High Commissioner for Human Rights and (OHCHR)
Ceasefire violations	People facing food insecurity
Status-of-forces agreement violations	Cases of select illnesses and of treatment of cases
Attacks against peacekeepers, convoys	Health facilities restored
Civil affairs team meetings with local authorities	Emergency, basic and surgical health kits delivered
Conflict mitigation events organized	Number of police courses conducted
Number of force protection tasks undertaken to support humanitarian delivery	Number of prison managers trained
Counts of humanitarian access incidents, violence against humanitarian actors and sites	Number of closed-circuit television cameras installed
Mines cleared, small arms collected and destroyed, km/m of area cleared	Cases of legal aid supported and processed
Cantonment sites, Disarmament, Demobilization, Repatriation, Reintegration and Resettlement (DDRRR) services provided	INTERPOL “red notices” issued at Mission’s request
Internally displaced persons (IDPs) and refugees	Official crossings of buffer zone recorded
Voluntary returnees recorded, transported, supported	Heritage-related initiatives supported, sites restored
Migration routes demarcated	Commemorative events and religious services facilitated
Incidents of violence against children and military use of schools, and counts of affected children	<i>Financial requirements, and percentage mobilized, for ...</i>
Child soldiers released, registered and reintegrated	Election support
	Humanitarian crisis funds
	Quick-impact projects

Sources: Survey of SG reports from 2015 to present for all UN missions and all SG reports for UNMISS.

continued “would get us most of the way” towards more efficient analysis and better, data-driven decisions.

To conclude, it is important to acknowledge that the UN is the most transparent of actors currently engaged in peacekeeping. It regularly publishes a number of documents that have served as vital resources for quantitative peacekeeping data projects in the past and, as outlined above, already offer fruitful paths for expanding these efforts into the future. Consistent and detailed provision of the identified “known unknowns” would only further facilitate more disaggregated, operational-level, and policy-relevant research.

Peacekeeping data in 2016

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The issue of *International Peacekeeping* before you which focuses on data is both timely and welcome to the Peacekeeping community. Significant efforts have been taken in recent years and are still underway to improve the way data is used to inform conflict analysis and decision-making, improve transparency and reporting, and strengthen targeted response within complex mandates. With the rising complexity of peacekeeping mandates in increasingly remote and actively contested environments, establishing and releasing baseline data on progress in modern formats is clearly valuable to all.

Within the recently issued report on Technology and Innovation in Peacekeeping (www.performancepeacekeeping.org), the Under-Secretary-Generals of Peacekeeping and Field Support have prioritized new efforts to use information, data and technology to enhance our work in protecting civilians, policing, strengthening rule of law, demarcating boundaries, and monitoring post-conflict theatres. While acknowledging the need to improve the slowness of the system to use and release data, we know that when we do have regular, reliable, and high quality data, we can both act faster and in a more effective manner. This, in turn, improves the confidence both within our system and with valued partners.

Regarding the articles in this issue, a number of important issues and questions have been raised. High quality and current data on personnel, uniformed contributions, fatalities, financial costs, and national origin of

leadership is useful to academic partners and Member States in order to evaluate peacekeeping performance. The more that these administrative datasets are geo-referenced, gender dis-aggregated, and declassified in open data formats, the better.

Provocative points are also raised by Dorussen and Ruggeri regarding the value of data on sub-national tensions and of engagement with local conflict dynamics to inform political response. This echoes points made by the recent High-level Panel on Peace Operations that “the best information comes from communities themselves”, and the Panel further urges improvement of peacekeeping information and data in order to understand needs, communicate limitations of the system, and coordinate response (A/70/95-S/2015/446, para. 98–99). With an increasing number of missions charged with protecting civilians, better data is needed to inform both active response and also to undertake frank assessments of what can be done to protect in specific circumstances. Data may be able to help manage expectations and to calibrate more relevant support in difficult and unstable environments.

The issue of regular release of UN peacekeeping data in modern formats to fill in gaps in public and collective knowledge, described by Bosco, is also very timely. As she describes, because the Organization releases data in a variety of formats and in an often inconsistent manner, it can be difficult to undertake medium- to long-term evidence-driven conflict analysis. Recognizing this same challenge, the Secretary-General has urged all UN capacities to embrace the “Data Revolution” (undatarevolution.org) and has set milestones for all parties to embrace a “Digital Secretariat” (<http://www.un.org/sg/pdf/the-change-plan.pdf>). Peacekeeping is working towards these goals and made much progress, but more efforts are needed to fully tell the story of successes and failures of Peacekeeping in twenty-first century data formats.

Congratulations are in order to all the authors who have made contributions to this issue on *International Peacekeeping*. It is often through the valuable work of academics and external parties that the true complexity and the dynamics of peace operations can be revealed.

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