WHITE PAPER:

Assessing Political Demography's Potential Application

to Foreign Policy, Defense, and Intelligence Analyses

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1. Introduction

1A. The Discipline

This white paper describes ongoing progress in political demography and its contributions to foreign affairs analysis, defense planning, and intelligence analysis. Political demography—"the study of the size, composition, and distribution of the population in relation to both government and politics" (Weiner and Teitelbaum, 2001)—has accumulated a substantial body of descriptive and predictive theory over the past 50 years. Although slow and discontinuous during much of that history, the field has more recently begun to coalesce, as evidenced by a spike in publication of works in the field and the creation of the Political Demography & Geography Section of the International Studies Association.

Quantifiable demographic dynamics and quantitative differences have always been the focus of this theory, like other disciplines engaged in the study of political systems. This analytic work has confirmed and refined the field's fundamental hypotheses regarding relationships among migration, age structure and fertility on the one hand, and ethno-religious conflict, international war, terrorism, political instability, and democratization on the other (Möller, 1968; Fuller & Pitts, 1990; Goldstone, 1991, 2001, 2002, 2010; Weiner, 1992; Weiner & Teitelbaum, 2001; Jackson & Howe, 2008; Cincotta, 2008, 2008/09; Dyson, 2013; Leuprecht, 2010; Kaufmann, 2010; Hudson and den Boer, 2004). With the numerical coding of political-event data, researchers have solidified and broadened the field's theoretical foundations by statistically testing a variety of politico-demographic hypotheses that relate population age structure (the distribution of residents, by age) to aspects of state behavior (Mesquida & Weiner, 2001; Urdal, 2006; Cincotta & Doces, 2012; Weber, 2012; Dyson, 2013; Cincotta, 2015a & b; Kim & Sciubba, 2014).

Researchers have worked to uncover the causal dynamics and pathways through which demographic variables translate to political outcomes by drawing on theories from sociology, conflict studies, psychology, and even biology. Changes in fertility, mortality, and migration shape a society's age structure, ethnic composition, and overall size. Researchers are making progress in understanding the multiple intermediate variables between demographic trends on one side of the equation and political outcomes on the other.

This field's importance is skyrocketing, as societies around the world are entering unknown demographic territory. The unprecedented aging of developed and developing societies, including much of Europe, Japan and China; the rapid rates of urbanization in the developing world; the continuing explosion of youthful population in sub-Saharan Africa; gender imbalances in major countries in Asia; new patterns of global migration; and rapid shifts in the global proportions of followers of different religions all will dramatically reshape the political landscape of the international system, and create new conflicts within nations. Scientific assessment of how these various trends will impact political outcomes in the coming decades is vital for developing sound policy responses to these challenging trends.

What sets political demography apart from most other political disciplines, is its researchers' ability to apply the field's conceptual and statistical models to the future using demographic projections. Because of the accessibility, methodological transparency, and reliability of these projections (see UN Population Division, 2015; US Census Bureau, 2016; reviewed in O'Neill et al., 2001), political demography can count itself among the few political and international relations disciplines to have achieved a series of demonstrable successes in forecasting political events and conditions within an explicit "window of time" (Cincotta 2008-09; Cincotta 2015a & b; Cincotta, *in press*). While researchers continue to employ quantitative indicators of demographic conditions and dynamics to explain past/contemporary political events and trends (Coleman, 2015; Kaufmann, 2010; Leuprecht, 2010), and develop models that statistically test new hypotheses using past political data (Kim and Sciubba, 2014), a substantial proportion of politico-demographic research is "forward looking"—hypothesizing outcomes that are still "over the horizon" by linking theory to projected demographic conditions.

Several forward-looking politico-demographic topics are currently under study. These include: the politics of population aging and migration in Europe and East Asia (Sciubba, 2015,

2012; Goldstone, 2010; Haas, 2007); the future of insurgency, including the origin and spread of *spillover conflicts* (cross-border conflicts among youthful populations) (Cincotta, 2011); the future of democracy in the Middle East, North Africa, Central Asia, the Sahel and the equatorial states of Africa (Cincotta, 2015a; Cincotta, 2011); and the political future of ethnically diverse states with significant majority-minority fertility differentials (e.g., Israel, Myanmar, Turkey) (Cincotta and Kaufmann, 2010; Blomquist, 2016; Eberstadt & Shah, 2012).

1B. Scientific Content

Whereas analysts in the national security community have neither the time nor the responsibility to test, modify, and compete the political theories upon which they base their analytical judgments, their need for scientifically generated and tested theory has become critically apparent (Tetlock, 2005). Political demography is one of the few political disciplines to make conscious efforts to create an epistemological culture supporting repeated testing with alternative indicators (Cincotta 2008-09; Cincotta & Doces, 2012; Weber, 2012; Dyson, 2013); and forward-looking models, accountable forecasting, and other means of out-of-sample testing (Hegre et al., 2013; Cincotta, 2008, 2008/09).

These approaches have yielded testable age-structural markers that statistically separate states exhibiting differing political behaviors. Unlike research that expects political transformations to evolve and aggregate over chronological time (Huntington, 1991), these markers suggest that critical political transformations are encountered in regions along the "age-structural domain," an axis measuring the maturity of a state's population age structure. For example:

- States that have been assessed as a *liberal democracy* (FREE in Freedom House's annual survey) (Freedom House, 2017) have a high probability of maintaining that rating if they have a median age greater than 28 years (Cincotta, 2015b; Cincotta, *in press*).
- Below a median age 26 years, liberal democracies are likely to drop to either PARTLY FREE or NOT FREE status within a decade (Cincotta, 2015b; Cincotta, *in press*).
- Whereas civil conflicts have been largely confined to states that are youthful, ethnic conflicts have been statistically less insensitive to this marker (Yair & Miodownik, 2016).

- The statistical upper bound for military regimes has been the end of the intermediate portion of the age-structural transition (median age, 35 years) (Cincotta, *in press*).
- States experiencing unusually large youth cohorts and unusually high age-specific rates of unemployment or blocked social mobility are at high risk of political upheaval (Goldstone 2002, 2012); these predictions were largely validated in the Arab Spring events of 2010-2011.

1C. Exchange with National Security Audiences

Over the past 15 years, political demographers have worked closely with, and within, the US national security community, writing and presenting their theoretical and empirical conclusions in forms appropriate for use by analysts and policymakers (Sciubba, 2008, 2010; Goldstone 2010; National Intelligence Council, 2008, 2012, 2017; Leuprecht, 2010, Cincotta & Kaufmann, 2010; Cincotta, 2010, 2011, 2012b, 2015b).

Political demographers have reached several notable milestones in their efforts to extend politico-demographic concepts and methods to the US national security community. Since2008, analyses of age structure have become a standing element of the (U.S.) National Intelligence Council's *Global Trends* quadrennial review of intelligence foresight (NIC, 2008, 2012, 2017). Analyses of age-structural features are reviewed in the Defense Intelligence Agency's early warning handbook, and have featured in numerous regional and topical workshops sponsored by the US State Department/INR, National Intelligence Council, and units within the National Defense University (USMA/West Point, Near East-South Asia Center). A lecture on recent conclusions and forecasts of political demography is currently presented in a course on strategic early warning at the National Intelligence University. And, a political demographer has been selected three times (2012, 2014, 2016) to present one of the National Intelligence University's "Distinguished Speaker Lectures" on demography and national security.

Recent progress in political demography is so new that it is not a required part of university political science or IR degree programs, and features (or has featured) in undergraduate and graduate coursework in only a few academic institutions. Military and intelligence education more frequently include demographic analysis than civilian institutions,

but recent political attention to migration is increasing the field's visibility. Yet in all too many cases, public discussions of the impacts of immigration or population increase on social cohesion and political outcomes are based on emotion rather than analytic and tested findings from political demography. A wider program of research and teaching in this field is necessary to remedy this situation.

2. Central Questions and Concerns

In this section, we suggest how a National Academy of Sciences panel might identify ways in which national security agencies, research institutions, and individual researchers could influence political demography's direction, stimulate its progress, and enhance its responsiveness to potential end-users in the US national security community.

2A. Development as a scientific discipline

- Should more multi-disciplinary centers on political demography be funded to accelerate research and increase the visibility of this discipline (Brown University has already begun exploring/planning for such a center)?
- How can potential end-users benefit from the scientific practice of political demography?
- Has political demography progressed to a stage that it could/should be an element of political science or IR college curricula? Is it being taught? What are the lessons learned from teaching (in academia; in military/intelligence courses)?

2B. Promising tools, techniques, and recent research results

- How do politico-demographic narratives and age-structural models relate practically and epistemologically? What do national security audiences require?
- What types of statistical modeling and probabilistic conclusions are most appropriate for ultimate translation to the end-user, and what are the practical limits of these techniques? Researchers in this field are currently utilizing advanced geographic and spatial modeling, and regression analysis. Should Bayesian analysis be applied to different demographic projections? Can agent-based modeling be joined with demographic projections to make more accurate predictions of conflict and regime change?
- What mapping and graphical tools are most appropriate for intelligence analysis and decision making?

2C. Central questions with unusual discovery potential; possible new lines of investigation; and possible disciplinary interactions.

- Population aging in developed countries is moving into proportions of aged never before seen in human history. What hypotheses can be developed from the narrative discussion of population aging? Are there already hypotheses that could be operationalized and tested?
- The world has seen, since 2005, an unexpected reversal in the global spread of democratic governance. Can political demography help analysts better understand and predict the longevity of regime types? For example, can political demography help analysts better understand the vulnerability of anocracies to political unrest and intra-state conflict? If so, what are the next steps? Is there a possibility of model competition?
- Will a better understanding of sub-state demography help researchers and end-users to understand the future of ethnopolitical relations in states? Are there geographic and ethnic elements to political demography that could be developed by coupling with political geographers and using GIS? How can political demographers obtain or develop sources of sub-national ethnic and geographical data?

2D. Potential Benefits for the National Security Community.

- Whereas political demography's models already contribute to intelligence foresight via the NIC's Global Trends Series, are there opportunities to use the methods in early warning (up to 2 years) and estimative intelligence (ongoing and near-term dynamics)?
- Are there aspects of the politico-demographic analysis (maps, graphics, tables) that analysts could reproduce "on site"?

How can political demographers better communicate their theoretical and empirical research conclusions with national security end users?

3. Prognosis

Political demography has made extraordinary progress in the last decade, and is now poised to develop into a major sub-discipline bridging demographic analysis and political science. Its arrival just as the world is moving into a new and unknown demographic future is timely. Yet the resistance of established disciplines and mainstream university teaching needs to be overcome for this field to realize its potential contributions to knowledge and public policy. This would be the ideal time for NAS to provide crucial support to accelerate and diffuse research and teaching in this field to new audiences and a wider base of doctoral students and scholars.

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