

# RADICALIZATION RISK in BOSNIA & HERZEGOVINA

## INTRODUCTION

In a country of only 3.53 million people (2013), Bosnia is a hot spot for foreign fighters travelling to join ISIS in Syria and Iraq. Research suggests there are identified clusters and high concentrations of recruits in particular geographic areas but little analysis has been done to show where. The demographics of a common ISIS recruit is a single, young, poor, unemployed man, with little education, and some experience with Islam. These socioeconomic factors combined with a sense of marginalization or grievance and an imprint of ethnic violence during the Bosnian War from 1992-1995 has proven to be a breeding ground for violent extremism. The 2013 Census was the first conducted since the war and was released three years later due to controversy with ethnic reporting. Many people felt uncomfortable declaring their ethnicity and instead chose to select the fourth box



‘other’. It represents those minority groups such as Jews, Roma, or children of mixed marriages who refuse to choose an ethnicity. There are ethnic quotas by public sector jobs and in a country of high unemployment, making a conscious choice to exclude oneself from eligibility for those jobs is significant. People who may identify as ‘other’ on a census may also feel marginalized and have a higher likelihood of being recruited by violent extremism groups. Recently there has been some analysis done on the origins

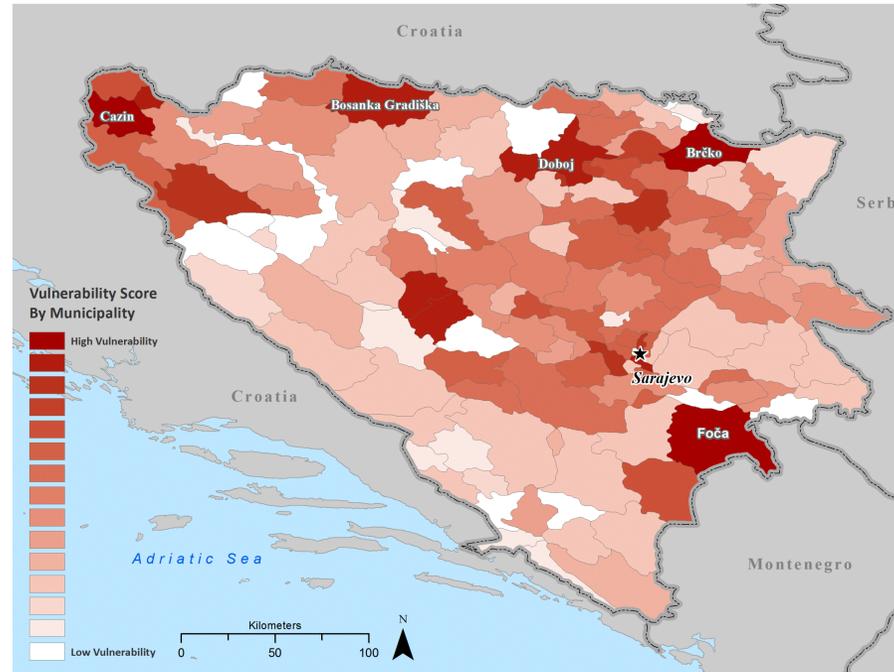
of foreign fighters but few studies have been conducted analyzing the relatively high flow from Bosnia. This analysis is done in an effort to apply existing theories of radicalization to spatial questions and a vulnerability assessment to expand the body of knowledge and tools available for studying a pressing concern.

## METHODOLOGY

The primary data used is socioeconomic information from the 2013 census conducted by the Bosnia Statistics Agency of indicators for men on age, jobs, ethnicity, religion, education, and marriage status. This set of criteria determined the likely areas of radicalization by municipality. The data took a considerable effort to clean as the organization of data points was unorthodox, in Bosnian, and contained special characters.

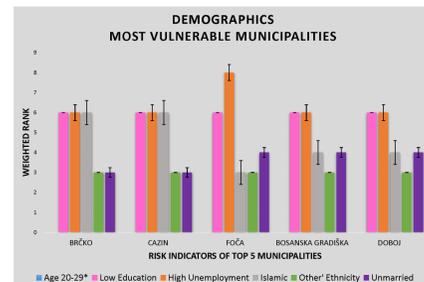
### Vulnerability Analysis:

After the six variables were chosen, they were scored using natural (Jenks) breaks in the data on a scale of 4 (highest risk of radicalization) to 0 (lowest risk of radicalization). Each indicator was linked to the municipality level and added together to create an overall demographic score. The variables were normalized by population. Each is visualized in the six individual maps below.



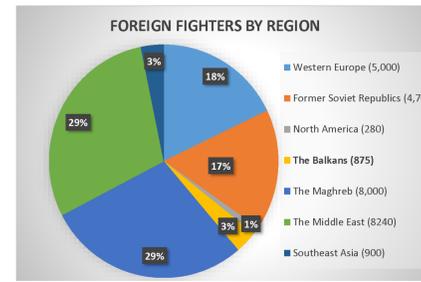
### Risk Score Weighting:

The ranking scores for all six criteria were then added together in a weighted formula with higher emphasis placed on men in their 20s and unemployment, then religion and education, and the least emphasis placed on ethnicity and marriage. The weighted scores were combined to produce an overall radicalization risk score which was classified into a final 1 to 15 scale (lowest to highest) using natural (Jenks) breaks. The scale is visualized by municipality in the main map above.



### Demographics of Most Vulnerable Municipalities:

A bar graph analysis was used to visualize the top five municipalities with most vulnerable men by indicator and weighted rank shown above.



### Foreign Fighters by Region:

The data for the foreign fighters by region was based on official country estimates of foreign fighters traveling to join ISIS. A pie chart was used to visualize the numbers and percentage of foreign fighters by region above. (The Soufan Group 2015)

## RESULTS

The results of the vulnerability assessment show the highest risk municipalities to be Brčko, Cazın, Doboј, Bosanska Gradiška, and Foča, labeled to the left. Three of the five municipalities are in densely populated regions. Interestingly, the majority of the country is at low risk for radicalization. Proximity research suggests that recruitment often happens in person in Bosnia and having close relations with someone who has been radicalized increases the likelihood of being recruited. The areas for risk might be concentrated to fewer municipalities because of this. None of the top five municipalities had men aged 20-29 as an indicator suggesting it to be of less importance than originally predicted.\* While the Balkans only show 3% of the total foreign fighters worldwide, regionally foreign fighters came from four countries and per population Bosnia accounted for 37% of the total for the region.

## LIMITATIONS

Some limitations include choosing indicators for radicalization. There is no one profile of a terrorist and attempting to predict who is most at risk of radicalization is far from an exact science. The indicators chosen for this study were limited by the data points collected on the census. The data coming out of Bosnia is limited and more contextually specific primary data needs to be conducted in the country. There are reports of entire families, or couples traveling to Iraq and Syria but no specific numbers or locations are forthcoming. The numbers of foreign fighters have also increased since collection and the amounts used are likely underestimated. Additionally, the project used natural breaks but could have been broken up based on a better set of demographic information.

## CONCLUSION

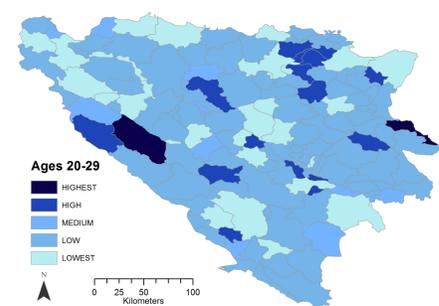
Findings produced from analyses like this can be used for preventing violent extremist programming to better appropriate resources and target interventions at the areas of highest risk. These should be conducted not just for Bosnia but regionally and in areas of high recruitment by violent extremist groups. The more information and research available on the reasons people are radicalized will improve interventions and may advance the options for the reintegration phase for returned foreign fighters beyond indefinite jail time.

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**Course:** DHP 207: GIS for International Applications, The Fletcher School, Tufts University  
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**Projection:** MGI 1901 Balkans 5, Transverse Mercator, Meters  
**Data Sources:** GADM Administrative Boundaries, Global GIS DVD, Natural Earth, Agency for Statistics of Bosnia and Herzegovina, The Soufan Group, The Balkan Insight, Radio Free Europe, PRI, Flickr, ESRI



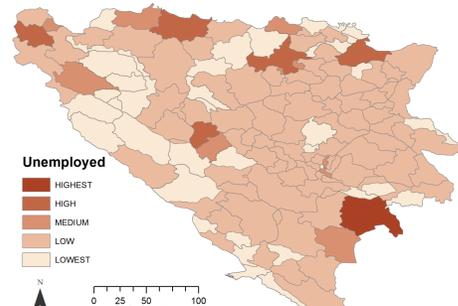
Keno Photography, Kontra II, Sarajevo, 2014

## MALE POPULATION INDICATORS BY MUNICIPALITY (2013)



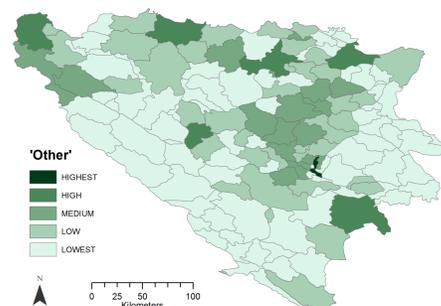
### Ages 20 through 29

Men in their 20s make up 6% of the total population.



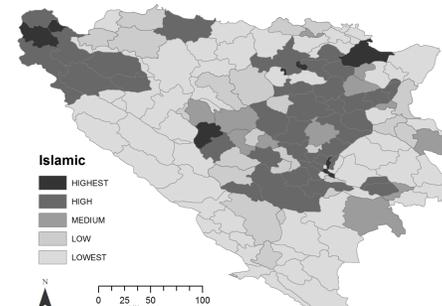
### Unemployed

At 57% youth employment rate is the highest in the world. It is driven by corruption, nepotism and economic stagnation. (PRI 2014)



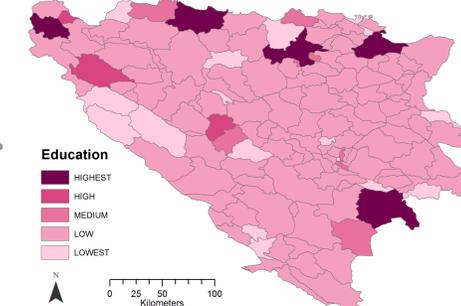
### Identifying as 'Other' Ethnicity

2.73% of the population categorized themselves as the official term for national minorities and people who do not identify as Bosnian, Croat, or Serb. (Census, 2013)



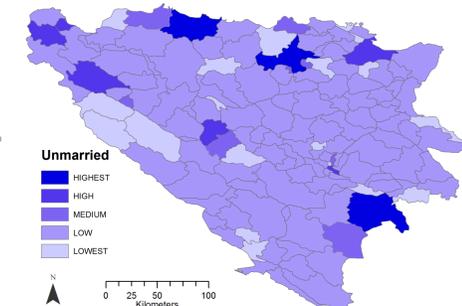
### Identifying as Islamic

The census revealed Bosnian Muslims to now be a majority in the country, sparking tensions due to power sharing agreements from the Dayton Accords in 1995 among the three main ethnic groups. (RFE 2016)



### Secondary-Level Education or Below

Bosnia has a lower percentage of residents with higher education than their neighbors. (Balkan Insight 2016) This indicator measured education levels of none, primary, and secondary.



### Marriage Status

This indicator measured single, widowed, and divorced men. Similar results were produced to the education indicator findings to the left.