Cash, Schools, and Immigrants: The Effects of Income and Education on Xenophobia in South Africa

John David Clark

Follow this and additional works at: https://scholarsarchive.byu.edu/sigma

Recommended Citation
Available at: https://scholarsarchive.byu.edu/sigma/vol28/iss1/4

This Article is brought to you for free and open access by the All Journals at BYU ScholarsArchive. It has been accepted for inclusion in Sigma: Journal of Political and International Studies by an authorized editor of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.
Cash, Schools, and Immigrants: The Effects of Income and Education on Xenophobia in South Africa

John David Clark

Introduction

Ethnic tension has long been a part of South Africa’s history, most prominently with racial segregation during the apartheid years. In 1994, white minority rule was replaced with black majority rule, and the years following the breakup of apartheid saw a decrease in tensions between whites and other South Africans. However, despite this easing of tensions, problems still persist and a new trend in recent years has been violence against immigrants from other African countries, perpetrated by black South Africans. This problem is troubling and poses serious implications for the future of a multiethnic and democratic state like South Africa. Some of the more prominent reprisals against immigrants have been recent attacks in squatter camps in May 2008. These were carried out by local residents against immigrants. Another recent example has been government action used to “clean up” before the FIFA World Cup. The government paid local residents to forcibly evict immigrant squatters. These eviction squads were nicknamed “red ants” because of the bright red overalls and helmets the government uniformed them with. One red ant said, “It’s our land and we have the right to help the authorities move them. If the municipality asks us to destroy these cockroaches then we’ll do that and flatten their homes to dust” (Sunday Times 2010). Statements like these sound all too similar to those used in justifying Rwanda’s genocide and seem ominous for South Africa.

This study attempts to answer the question of what effect income and education have on xenophobia. Although measuring education and income levels is relatively straightforward, one of the major problems with measuring xenophobia is that few people are willing to admit xenophobic tendencies. This problem is especially com-
pounded in a place like South Africa, where the last decade and a half has been devoted to the idea of ethnic integration and creating a "rainbow nation." South Africans deal with racial discourses on an almost daily basis and, therefore, have a good idea of what society expects in relation to other races. In such a setting, traditional surveys are certainly inadequate. One recent innovation in measuring attitudes on sensitive topics is the list experiment. This appears to participants to be a short survey asking them to tell the number of items that make them angry or that they do not like, etc. (note, it does not ask which items). In reality, the trick is that the treatment survey has one additional item, an item that appears to fit with the others on the list. Any difference between the mean number of items in the control and treatment groups is attributed to the extra question. The list format appears to promise participants anonymity and privacy, since they surmise, correctly, that researchers cannot identify which specific items make subjects angry. However, the average difference between groups produces an average treatment effect of adding the extra item.

Data was collected in three townships in South Africa during the summer of 2009. The areas in question are all relatively poor, most residents only finished secondary schooling, and many have only a few years of formal education. The survey consisted of the list experiment and several background questions. In this study, I look at the answers to the various list experiments and see how they relate to income and education levels. There were two questions, each with two treatments. The various questions and treatments dealt with xenophobia in general, as well as how it can influence elections. Some of the questions also deal with the ethnicity of South African presidential candidates but can also provide insights into xenophobia against non-South African ethnicities, since these questions also deal with racial attitudes.

After comparing high and low income and education, the results indicate that income and education had no effect on the xenophobic attitudes of the people in these townships. These results were statistically significant, at the 95 percent and 99 percent levels in many cases. This lack of education or income effects could be because the education and income levels are still too low to have an effect, or it could mean that income and education are not as effective in decreasing xenophobia as would be hoped for. It could also imply the relationship between income, education, and xenophobia are more complex and need to be studied more thoroughly in future research.

Literature Review

There are many arguments as to what causes xenophobia and anti-immigrant tension. Although I will only discuss income and education in depth, I will list other arguments and explanations. These include scapegoating (see Johnson 1996, 111; Citrin et al. 1997; and Noyes 2019), the influence of populists and demagogues (see Rydgren 2003; Collier 2003: 58–9; Crush 2000; and Ransford and McDonald 2001), resource scarcity from which I base one of my explanations), and in the specific case
of South Africa, a "culture of violence" (see BBC Online 2002; and UNODC 2010). Although these may matter in explaining xenophobia, I will focus on the potential impact of income and education.

There are two broad arguments for why people with lower education or lower income oppose immigration. The first is resource scarcity and the second is a cultural effect. The logic behind a resource scarcity is that if immigrants come into a labor market with limited jobs, then they can significantly increase competition for employment, and see locals as the cause of unemployment and other social problems. The logic behind a cultural effect is that as people become more educated, they tend to be more accepting of other ethnicities and backgrounds. They would be less likely to react violently or resort to xenophobic attitudes. I will first discuss literature on the resource scarcity model and then briefly discuss some research on the cultural argument.

One of the most common explanations for animosity toward immigrants is that immigration increases competition for resources by creating resource scarcity. There are several researchers who have shown resource scarcity is a large contributor to xenophobic tensions. Percival and Homer-Dixon argue that certain resource scarcities in South Africa have played a role in increasing violence (1998), and Fisman and Miguel also show how the shrinking of Lake Chad has led to more conflict in that region. In fact, other regions experiencing similar shrinking of resources have also had up to a 30 percent greater chance of conflict (2008, 111–35). Although these have less to do with increased resource scarcity due to immigration, they still explain a similar phenomenon: more incoming immigrants potentially strain resource and job supplies and, therefore, cause more ethnic tension.

In the case of resource scarcity as it relates to jobs, it seems plausible that immigration into South Africa could possibly put a strain on job markets. Most African immigrants coming into South Africa are fleeing bad economic conditions in poorer parts of Africa, such as neighboring Zimbabwe. Since many of the countries are poor and less developed, few people coming from these countries are highly skilled. Even those with good skills are sometimes not given good jobs and so have to work in low skill positions (see Guardian 2010). In short, the immigrants in South Africa tend to be low skill workers. What is more, because of their desperate situations, they are often more willing than South Africans to work for low wages. This leads to the conclusion that the people who are most likely to dislike immigrants would be those with low skills or low income; in other words, the people with whom immigrants are competing. In such cases, a debate arises about who has a right to public goods (Wimmer 1997). When there are fewer resources, locals become the judges of who can enjoy resources and who cannot. And often that means immigrants will be excluded or abused.

Much research has supported this idea. Alan Kessler argues there is a robust relationship between lower income and education and xenophobia. Those people on the lower spectrum of income and education tended to oppose immigration (2001).
Eugene Campbell did a survey in Botswana asking natives their attitudes about immigrants (2003). He found that economic factors and nationalism both influenced peoples’ attitudes about immigrants. As Campbell puts it, “There is a strong desire to preserve the ‘fruits’ of economic prosperity for citizens alone” (2003, 71). This supports the income argument: those with more income are probably less worried about losing the “fruits” of the country, since they have enough material benefits of their own. Interestingly enough, the survey also revealed whites were favored over other races and blacks were favored over Asians, especially Indians. Also supporting this theory, Anna Maria Mayda did a cross country analysis looking at how skill levels correlate to attitudes on immigration (2006). She found people with lower skill levels were generally more opposed to immigration. This also supports the resource-scarcity argument, since those persons with higher skills are often more able to find jobs. As a counter argument to these explanations, some have argued that people with more education are not necessarily less xenophobic, they are simply better at giving more socially desirable answers (see Ostapczuk et al. 2009). However, Ostapczuk and his colleagues used a randomized response test with a lie detector and found people with more education still tended to have less xenophobic attitudes than those with lower education levels (2009).

There is also the argument that improved education and income will lead people to be more open-minded and, therefore, willing to accept immigrants or other races. There is less political science or economic research on this topic, but I will mention some of the related literature. Hjerm has observed that Swedish youth who are better educated tend to participate in democratic processes more, whereas those who are less educated tend to resort to more violent measures and are, ultimately, more xenophobic (2005). Hainmueller and Hiscox strengthen this argument by showing Europeans with higher education levels are more open to the idea of immigration, regardless of whether they are unemployed or not, thus weakening the resource scarcity (or labor competition) argument (2007). They say this indicates cultural norms have a greater influence than economic incentives and education has tempering effects.

Although these analyses of xenophobia give us a general idea of some of the attitudes and causes of xenophobia, they have two major problems. First of all, they rely on methods that still fail to get an accurate measure of how people really feel. In other words, they mostly rely on expressed preferences, which are not necessarily the same as actual preferences. Even those methods that use something more still have some problems, like the randomized response test with a lie detector. They try to overcome some of the problems inherent in asking sensitive questions but still rely on participants consciously having to take external social norms into account. More importantly, however, they fail to admit the situation is far more complex than this and the relationship between income, education, and xenophobia has a complicated history throughout the world—especially in South Africa.
Theory and Hypotheses

The dependent variable is xenophobia. I define this as hatred, dislike, or strong mistrust of foreigners. The two independent variables are income and education. Income is money earned by a household, and education is years of schooling and types of education (such as secondary school or university). Education is a more problematic variable because of varying levels of educational quality in South Africa. The quality can be particularly low in townships such as the ones examined in this study (see for example Fiske and Ladd 2004). However, in these cases, studies have shown that job prospects for township residents can even be helped by low levels of education. Fryer and Vencatachellum show how women in a South African township, Machibisa, have better job prospects even if they only have two years of secondary school education. This implies that even if education quality in these areas is low, education is still important and can influence job opportunities.

The four hypotheses I will focus on are:

1) Increased income and education will decrease xenophobia because of decreased "resource scarcity." This means those persons with low levels of income or education have to compete for scarce jobs or resources more than richer or more educated people do.

2) Increased income and education will decrease xenophobia because of a "cultural effect;" education makes people more open and tolerant of other ethnicities so they are less likely to be antagonistic to others.

3) Increased income and education will not decrease xenophobia because the relationship between the variables is too complex.

4) If income and education levels are too low, then they will not decrease xenophobia

Methodology

Experiments

Since this study relies on quantitative data from a field experiment, I will briefly discuss my reason for using experiments. In recent years, there has been an increase in the social sciences of using experiments as a way to more accurately measure causality. The debate about their effectiveness is extensive and some researchers still strongly oppose them as a valid means of determining causality, while others see them as a vital key in political science and economic research (see for example Deaton 2009; Duflo et al. 2007). Although this debate is too extensive to cover here, I will cover the most important points in order to justify my use of experimental data.

The biggest criticism is that experiments are not externally valid. There is some legitimacy to this, yet just because they are not 100 percent externally valid does not mean we should not make use of the insights we can gain from them. Well-designed
experiments can provide powerful insights into why people behave in certain ways, given certain circumstances. In other words, they give us a way to control all other factors and focus on causality, something that observational data cannot do. Experiments are really a practical application of *ceteris paribus*, a fundamental assumption in many disciplines. This assumption simplifies the tangle of data and potential causal variables and can help provide understanding that would be unavailable otherwise. I do not argue that the one approach is more important than the other but rather that both experiments and observational data have their place in social science research.

**List Experiments**

This study makes use of a relatively new tool: the list experiment. Because of the potentially sensitive nature of some survey questions, respondents might not be completely truthful (see Janus 2007). Even if anonymity is presumably guaranteed, many respondents might have a desire to conceal their actual feelings. And those persons who do not deliberately try to cover their true attitudes are often conditioned to know what answers are socially acceptable or not, and perhaps do not even realize their own true feelings about other ethnicities. In other words, people often think that they fit with societal rules even when they do not. In these cases, an unobtrusive method is needed to get true answers to sensitive questions. In South Africa, where the last five years have seen attempts at building a cohesive, multicultural society, and where racial prejudice is certainly frowned upon, people might have even more incentive to hide xenophobic attitudes, or try to convince themselves they are not really xenophobic. A setting like this makes it especially important to use unobtrusive methods to ascertain racial attitudes.

The list experiment is a simple survey with two versions. In the control, participants are asked how many of the following make them angry (or asked how many of the items they do regularly, etc.). In this example, all of the things on the list are reasonable options for making someone angry. In the treatment, the rest of the participants also receive a survey, but this time with one additional item, which embodies the outcome of interest. Because the treatment group does not know their questionnaire is different from the control group (which also makes it especially important that participants do not see other people’s questions), and because they are only asked to say how many items, not which specific items, they assume their answers are not particularly revealing. Further, because the items all seem like reasonable options to make people angry, the treatment is unobtrusive. However, by doing a difference of means test between the two groups, we are able to see if the treatment list, and particularly the treatment item, provokes a higher mean number from treatment subjects vs. control subjects. If it does, then we can attribute the difference to the treatment.
Here is an example of one of the lists that was used (Noyes 2009):

**Table 1: Example of List Experiment: How many of the following make you angry?**

<table>
<thead>
<tr>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Politicians who do not keep their promises</td>
<td>Politicians who do not keep their promises</td>
</tr>
<tr>
<td>The unemployment rate</td>
<td>The unemployment rate</td>
</tr>
<tr>
<td>High prices (for example: food and gas prices)</td>
<td>High prices (for example: food and gas prices)</td>
</tr>
<tr>
<td>High crime rates</td>
<td>High crime rates</td>
</tr>
<tr>
<td>Immigrants moving into your community</td>
<td></td>
</tr>
</tbody>
</table>

There were two list questions, each with two different treatments, meaning that each participant got one of four options, or a control. The first list asked “How many of the following make you angry?” The second question was “How many of the following influenced your vote in the recent presidential elections?” Each list also had either a specifically anti-immigrant xenophobia question, or a question relating to the recent election in 2009. Here are all four treatments used in the two list experiments (Noyes 2010):

**Table 2: Questions and Treatments**

<table>
<thead>
<tr>
<th>List</th>
<th>Xenophobia treatment</th>
<th>Election treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>List 1</td>
<td>(Treatment 1-1) Immigrants moving into your community</td>
<td>(Treatment 1-2) Having a president who is not of the same tribal ethnicity</td>
</tr>
<tr>
<td>How many of the following make you angry?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>List 2</td>
<td>(Treatment 2-1) Promises made by candidates or parties to take measures to counter immigration</td>
<td>(Treatment 2-2) Ethnicity of candidate</td>
</tr>
<tr>
<td>How many of the following influenced your vote in the recent presidential elections?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Experiment Design**

The data was collected by Ken Noyes, in the summer of 2009, as part of his research on the effects of ethnicity on xenophobia (see Noyes 2009). I am using his data set to look at the effects of education and income, variables he did not look at. The subjects in the study all come from three townships (slum-like settlements in South Africa): Davyton, close to Johannesburg; Mdantsane, near East London; and Umlazi, situated near Durban. These townships were chosen because they seem to be a good representation of ethnicities in South Africa (excluding whites), in the hopes of getting a rough map of overall South African attitudes. Umlazi is mainly a Zulu township, Mdantsane is mainly Xhosa, and Davyton is a relatively good representation of all the other South African ethnicities (Noyes 2009). The other ethnicities are Swati, Ndebele, Sotho, Pedi, Tswana, Tsonga, and Venda (Britannica
All nine of these major ethnic groups make up the majority of South African blacks, with Zulu and Xhosa being the dominant groups. Of course, a completely ideal survey would have chosen randomly from different places in South Africa, in the hopes of getting a truly accurate distribution of observations. However, this data ostensibly still gives a more-or-less accurate depiction of what black South Africans feel when it comes to xenophobia. Since this was the first such experiment in South Africa, it is not meant as an exhaustive survey but rather an attempt to get an idea of xenophobia in South Africa.

The data was collected by local university students familiar with the area. Zones were randomly chosen, as were routes and starting houses in these zones. The recruiters went at various assigned times to every third door and randomly chose an adult candidate for participation. They were then offered the opportunity to participate in a study about South Africa’s ethnic groups, and to receive 60 Rand (about $6). If the person accepted, they were handed an invitation to go to a local school where the research would be carried out. The invitation had the person’s name on it as well as the time they were to come, to make sure the right person came to the study. When they came to the study, they were instructed on how to use the basic computer program and then did a survey about basic background information, as well as their responses to the list experiments.

The background questions asked them about their ethnicity, party affiliation, predominant language, where they were born, where they live, and information about income and education (see Appendix). For education, people were offered increments of schooling, which made a scale of one to seven, one being “no schooling” and seven being “completed university or polytechnic” (see table 3). For income, people were offered increments of annual earnings (see table 4). The lowest income was “R5,000 or less” (about $500), and the highest was “R90 467 and above” (about $9,000). To get an idea of what purchasing power in South Africa is like, the rand-dollar exchange rate at the time of the study was about R 10 to $1, and gas cost about R7 a liter in 2009, which converted to about $0.70 a liter, or $2.66 per gallon (“Petrol Prices,” Mail & Guardian, 27 February 2009). Other examples include: two liters of milk R18 ($1.80), jeans R150-250 ($15-25), movie ticket R20-50 ($2-5), and pizza R30-65 ($3–6.50) (Monash University 2009).

Education and income levels were generally low but perhaps not as low as expected. The mean for education was 4.621, with 659 observations, a standard deviation of 1.193, and minimum one and maximum seven (see Figure 1). The 4.621 mean implies most people had either completed secondary school or had some secondary school.

As for income, the great majority of people fell into the lowest range, R5,000 or less. The mean was 1.935, with 650 observations, a standard deviation of 1.387, and responses ranging from 1–6 (see figure 2).
Figure 1: Level of schooling completed

1: No schooling; 2: Some primary; 3: Completed primary school; 4: Some secondary school; 5: Completed secondary school; 6: Some university or polytechnic; 7: Completed university or polytechnic

Figure 2: Yearly Household Income

1: R5,000 or less; 2: R5,001–11,378; 3: R11,379–20,202; 4: R20,203–36,402; 5: R36,043–90,466; 6: R90,467 and above

Results

The control and treatment results for income were obtained by dividing all responses into high income and low income, each group making up about half of the responses. I labeled those with income of "one" as low income and all the others as high income in order to evenly split the data. Otherwise, there were too few observations in "high income." Even with this divide, there were still slightly more people in the low-income group. I then took all people who answered the control and were high
income and combined them into a variable called "control high income." I then took all the high-income people who answered the treatment and made them a variable called "treatment high income." I conducted comparison of the means test, to see if there was a difference between the control and treatment high income groups. The next step was to take the low-income control and low-income treatment and compare them. To see if there is a difference between high income and low income, I looked at the 90 percent and 95 percent confidence intervals. If there was no overlap, I concluded there was a significant difference between high and low income. If they did overlap, then there was no significant difference.

For education, I also divided the data, as evenly as possible, into high and low income. I made levels one through four low education and five through seven high education. This was also done to evenly split the data so high education was not too small. Since there were such a large number in five (completed secondary school), the high education group is slightly larger, as can be seen in the data. I then did the same for income so I had variables for those that answered the control and had high or low education, and then the same for those who answered the treatment.

### Income

#### Treatment 1-1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Income</td>
<td>2.654 (0.118)</td>
<td>81</td>
<td>3.654 (0.138)</td>
<td>91</td>
<td>-0.609</td>
<td>-0.972 to -0.247</td>
<td>-0.912 to -0.306</td>
<td>-3.317</td>
</tr>
<tr>
<td>Low Income</td>
<td>2.618 (0.108)</td>
<td>110</td>
<td>3.356 (0.124)</td>
<td>118</td>
<td>-0.734</td>
<td>-1.063 to -0.412</td>
<td>-1.001 to -0.463</td>
<td>-4.467</td>
</tr>
</tbody>
</table>

The survey for this question was the first list experiment, which asked how many of the following makes you angry. The first treatment, the one this table is about, was "Immigrants moving into your community." Although there is a statistically significant difference between the control and the treatment, as can be seen by the strong t-values, when comparing high and low income there is little difference. The 95 percent confidence interval for high income is -0.972 to -0.247 and for low income it is -1.063 to -0.412. Although low income has a slightly larger difference, the confidence intervals still overlap, which means there is no statistical difference. In other words, all we can tell from this data is there is xenophobia against immigrants, but high- or low-income people are not any more prone to be xenophobic. Even with 90 percent confidence intervals, and at the risk of committing Type I error, there is still not enough statistical difference. In other words, at the 95 percent and 90 percent levels, there is no statistical difference.
Treatment 1-2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Income</td>
<td>2.654 (0.118)</td>
<td>81</td>
<td>3.061 (0.133)</td>
<td>97</td>
<td>-0.407 (0.181)</td>
<td>-0.764 to -0.247</td>
<td>-0.706 to -0.706</td>
<td>-2.254</td>
</tr>
<tr>
<td>Low Income</td>
<td>2.618 (0.108)</td>
<td>110</td>
<td>3.349 (0.123)</td>
<td>106</td>
<td>-0.731 (0.163)</td>
<td>-1.053 to -0.409</td>
<td>-1.001 to -0.461</td>
<td>-4.476</td>
</tr>
</tbody>
</table>

The question for this treatment, in response to being asked how many of the following make you angry, was "Having a president who is not of the same tribal ethnicity as you are." Once again, although there is a difference from the control in both cases, there is no difference between high and low. The 95 percent CI for high income goes from 0.764 to -0.247 and for low income it goes from -1.053 to -0.409. Since there is overlap here, we can infer there is no difference between high and low income. The same goes for the 90 percent CI: once again, there is still quite a large overlap. Therefore, we can say, at the 90 percent and 95 percent confidence levels, there is no difference between high and low income in influencing xenophobic attitudes. In short, the only thing we know yet is that xenophobia exists against immigrants and high or low income is not an influencing factor.

Treatment 2-1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Income</td>
<td>3.265 (0.113)</td>
<td>92</td>
<td>3.524 (0.144)</td>
<td>86</td>
<td>-0.258 (0.182)</td>
<td>-0.617 to 0.101</td>
<td>-0.557 to 0.041</td>
<td>-1.420</td>
</tr>
<tr>
<td>Low Income</td>
<td>2.927 (0.109)</td>
<td>110</td>
<td>3.214 (0.136)</td>
<td>126</td>
<td>-0.287 (0.178)</td>
<td>-0.637 to 0.063</td>
<td>-0.580 to 0.006</td>
<td>-1.614</td>
</tr>
</tbody>
</table>

These are the results from the second list of questions, where participants were asked how many of the following influenced their voting in the most recent elections, held in 2009. The treatment for this list was "Promises made by candidates or parties to take measures to counter immigration." In this case, there is not a statistical difference between the treatment and the control, which means this was probably not a significant enough issue for these people in this election. In addition, there is no difference between high and low income, at the 90 percent or at the 95 percent significance levels.
Treatment 2-2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Income</td>
<td>3.265 (0.113)</td>
<td>92</td>
<td>3.253 (0.132)</td>
<td>87</td>
<td>0.012</td>
<td>-0.329 to 0.354</td>
<td>-0.273 to 0.297</td>
<td>0.071</td>
</tr>
<tr>
<td>Low Income</td>
<td>2.927 (0.108)</td>
<td>110</td>
<td>3.494 (0.144)</td>
<td>102</td>
<td>-0.494</td>
<td>-0.846 to -0.146</td>
<td>-0.788 to -0.200</td>
<td>-2.769</td>
</tr>
</tbody>
</table>

This is also from the second list of questions, i.e., the question of how many of these factors influenced your vote in the most recent election, and the question for the treatment in this one was “Ethnicity of candidate.” Once again, the results are not statistically significant, in other words, ethnicity of the candidate did not play a major role for most of these people. Further, there is no difference between high income and low income, neither at the 90 percent level or the 95 percent significance levels.

Education

Treatment 1-1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Education</td>
<td>2.778 (0.09%)</td>
<td>117</td>
<td>3.283 (0.116)</td>
<td>127</td>
<td>-0.506</td>
<td>-0.805 to -0.206</td>
<td>-0.756 to -0.256</td>
<td>-3.329</td>
</tr>
<tr>
<td>Low Education</td>
<td>2.405 (0.135)</td>
<td>74</td>
<td>3.366 (0.152)</td>
<td>82</td>
<td>-0.960</td>
<td>-1.365 to -0.556</td>
<td>-1.297 to -0.6227</td>
<td>-4.693</td>
</tr>
</tbody>
</table>

These data are once again from the first list experiment, where the question was “How many of the following make you angry,” and where this particular treatment is “Immigrants moving into your community.” Instead of being divided by income, the divide is by education, where the low-education group is represented from levels one to four and the high-education group in levels five to seven. In this case, there is a statistically significant difference between the control and the treatment means, for both high and low education, implying that immigration makes both groups upset. However, the confidence intervals for high and low both overlap, so we can infer there is no difference between high and low education in mitigating xenophobia against immigrants.
Treatment 1-2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Education</td>
<td>2.778 (0.096)</td>
<td>117</td>
<td>3.264 (0.113)</td>
<td>121</td>
<td>-0.487</td>
<td>-0.780 to -0.193</td>
<td>-0.732 to -0.2418</td>
<td>-3.266</td>
</tr>
<tr>
<td>Low Education</td>
<td>2.405 (0.135)</td>
<td>74</td>
<td>3.134 (0.150)</td>
<td>82</td>
<td>-0.729</td>
<td>-1.130 to -0.327</td>
<td>-1.063 to -0.395</td>
<td>-3.586</td>
</tr>
</tbody>
</table>

This is also in response to the question of how many of the following make you angry, and the specific treatment is “Having a president who is not of the same tribal ethnicity.” There is a difference between the treatment and the mean, but there is no difference between the CIs of high and low education, meaning high education and low education do not make a difference in influencing xenophobia.

Treatment 2-1

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Education</td>
<td>3.176 (0.098)</td>
<td>127</td>
<td>3.456 (0.127)</td>
<td>125</td>
<td>-0.280</td>
<td>-0.595 to 0.036</td>
<td>-0.543 to 0.017</td>
<td>-1.745</td>
</tr>
<tr>
<td>Low Education</td>
<td>2.920 (0.133)</td>
<td>75</td>
<td>3.172 (0.161)</td>
<td>87</td>
<td>-0.252</td>
<td>-0.673 to 0.168</td>
<td>-0.602 to 0.098</td>
<td>-1.185</td>
</tr>
</tbody>
</table>

These data come from the second list experiment, asking “How many of the following influenced your vote in the last election.” The treatment is “Promises made by candidates or parties to take measures to counter immigration.” As in all the previous examples, there is no difference between high and low education, and the results are also not particularly statistically significant either.

Treatment 2-2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Control Mean</th>
<th>N</th>
<th>Treatment Mean</th>
<th>N</th>
<th>Difference</th>
<th>95% CI</th>
<th>90% CI</th>
<th>T Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Education</td>
<td>3.176 (0.098)</td>
<td>127</td>
<td>3.439 (0.130)</td>
<td>107</td>
<td>-0.263</td>
<td>-0.578 to 0.052</td>
<td>-0.526 to 0.0002</td>
<td>-1.646</td>
</tr>
<tr>
<td>Low Education</td>
<td>2.929 (0.133)</td>
<td>75</td>
<td>3.220 (0.151)</td>
<td>82</td>
<td>-0.300</td>
<td>-0.700 to 0.101</td>
<td>-0.634 to 0.034</td>
<td>-1.477</td>
</tr>
</tbody>
</table>

These data ask how many of the factors on the list influenced your vote with the treatment of “Ethnicity of candidate.” In this case, there is little difference between control and mean, and there is also no difference between high education and low education.

Discussion and Implications

In short, the results show that education and income were not significant predictors of xenophobia. This could have varying implications. First, it could mean levels of income and education in this study were too low to show any difference. This
might have been the case since many of the people had only a secondary school education. Perhaps education only has effects after much higher levels, like a university degree. Secondary school does not open up a lot of job opportunities, so these people would tend to be low-skill workers. But, as already indicated by the Fryer and Vencatchellum study, even low levels of education can help people escape from greater job vulnerability. Yet, there are still problems with such an explanation because even high levels of education do not always lead to high job safety. This is especially true of the outsourcing or off-shoring of jobs. At least in these cases, the people "stealing" jobs are too far away to be attacked. But either way, high- and low-skill jobs are both vulnerable to a certain degree.

As for the idea of certain stages of education being necessary to prevent xenophobia (secondary school diploma, college degree, etc.), we find some evidence. This is seen in that many of the immigrants attacked have been low-skill workers, and so it would be other low-skill workers from South Africa who were competing for the same jobs. On the other hand, even high-skilled workers from other countries are sometimes forced to work in low-skill jobs, because low-skill jobs are the only ones that will accept them (Guardian 2010). Even in these cases of higher skills, legal and illegal immigrants are perceived as a threat to low-skill jobs. However, as already explained before, this is still a problematic explanation, since many segregationist and violently xenophobic systems in the past, such as apartheid, slavery, or racial persecution, have often been carried out by the richer and more educated.

This leads to the other hypothesis that education can make people more tolerant and open, and so less xenophobic. In this scenario, more "enlightened" people would not engage in burning down the homes of immigrants, beating them, and dispelling them from communities. Most people in the West, while normally more educated and wealthy, were shocked when they saw the anti-immigrant violence 2008. Yet, it is exactly these countries that have carried out some of the most brutal and harsh treatment of perceived "inferior" populations. Past sins aside, the West is far from resolving all of its racial problems. Blacks in America are still less likely to get jobs they are just as qualified for as white people (see Bertrand and Mullainathan 2004), and the prisons are still disproportionately full of African-Americans (see Herbert 2010). And there is still the recent furor over the mosque and Islamic center in Manhattan, where people objected to a mosque and Islamic cultural center being built so close to ground zero (see Wright 2010). Such unwillingness shows Americans are still not so comfortable with other races yet and still struggle to a certain extent to trust the other.

Along these lines, Europe, another high-income and high-education area, is also enmeshed in its own racial and xenophobic turmoil. Several European countries have banned wearing hijabs and other religious covering. For an excellent look at some of these arguments and why none of them are worthy of a liberal democratic tradition,
such as Western Europe’s, see Martha Nussbaum’s article, “Veiled Threats?” (2010). She goes through arguments used against the hijab and shows how they are double standards—if these politicians really meant what they said, they would also ban high heels, pornography, and liposuction, and not allow people to wear scarves in the winter. In short, these seemingly neutral laws are badly disguised and hypocritical attacks on Muslims. Further, in the Netherlands, when Theo van Gogh was killed by a Muslim, there was massive outrage and a general feeling this was additional evidence Muslims were dangerous and radical. Yet when Pim Fortuyn was murdered the year before by an environmentalist, environmentalists were not seen as radical extremists, and there was no banning of environmentalist movements or the likes. As a final example, Switzerland, a supposedly free country, banned minarets on new mosques, by popular referendum. This is even more disturbing, because it shows a majority of the population, and not just some small group of politicians, were willing to make a law that limited the rights of a small minority group. All of these cases demonstrate countries that are supposedly free and tolerant, not to mention educated and wealthy, have many laws and attitudes that are xenophobic in nature. Therefore, even though education might temper some people against xenophobia, such as education about other people or places, it is still not a universal guarantor against xenophobia and does not automatically improve interracial relations all of the time or even necessarily most of the time. Therefore, these results are further evidence that income and education are inherently complex variables when it comes to solving ethnic tensions and xenophobic violence.

Limitations, External Validity, and Further Research

Although these results are intriguing, this study is limited in various ways. For one, the data is not exhaustive, it only shows three townships. Although the townships were selected by the original researchers in an effort to get a representation of all South African black ethnicities, they are still a small observation on the total demographics of South Africa. Further research would need to be done to fully ascertain the extent of racial perceptions throughout South Africa. Furthermore, the data is limited, because it only shows one snapshot in time and does not really indicate trends over time or trends without external shocks, such as elections and their accompanying rhetoric, as was the case in this study set during the 2009 elections. Nevertheless, it does provide an idea of racial attitudes and trends in South Africa today.

Perhaps this research can still be applied to the rest of South Africa. For one, the fact there are so many townships like the ones in this study means such results probably hold true for a large number of South Africans. Whether or not this also applies to the higher levels of South African society remains to be determined by further research. As for external validity to other countries, few places have such a starkly stratified society like South Africa’s, where the education and income gaps were ex-
acerbated by segregationist legislation. South Africa provides a fairly unique picture of xenophobia. However, there are many ways the lessons learned in South Africa can be applied elsewhere. Many other African countries have slums like the South African townships; these results probably also apply for groups of people there. And apart from Africa, there are many other places in the world that also have similar settings, so these conclusions might also apply there, too.

Further research would also need to be done using these types of surveys to see which people from all sorts of backgrounds in South Africa are more xenophobic—not just black people in slums. Perhaps such research would show people with college degrees are less likely to be xenophobic. In any case, the most logical step after this research is to include all backgrounds. This would either strengthen the conclusion that higher education and income are actually not good at decreasing xenophobia, or perhaps weaken these conclusions. Both would have significant implications.

Conclusion

This paper has found varying evidence for the three hypotheses discussed earlier. There is some evidence for the resource scarcity explanation since it can be argued that the education levels here are still too small to make a difference to show people being able to escape significant job competition. Perhaps a greater threshold of education would be needed to see significant decreases in xenophobia. On the other hand, there is little evidence for the cultural explanation, because each year of schooling would be expected to make people more educated and open, whereas only certain levels of education will be any use for people looking for work. Each added year would be expected to moderate people, since this is unrelated to job availability. But finally, the most conclusive evidence from these tests is the whole story is more complicated. Education and income did not seem to make people any less xenophobic. This goes with the observation that much racial persecution over time has been perpetrated by richer, more educated people. Therefore, the implications are not as straightforward as increasing education and income. Perhaps this means education needs to be specifically geared toward decreasing anti-immigrant xenophobia and not just focused on abstract ideas of liberal democratic values. Another implication is that immigrants need greater protection, since they are often likely to be persecuted and be more vulnerable, no matter what the situation. Most of all, we need to take a less simplistic approach to dealing with immigrants and admit that any of us might be guilty of xenophobia—not just the people beating immigrants in the streets.

REFERENCES


Noyes, Kennard. 2010. The ghost of Shaka Zulu: Using a list experiment to measure xenophobia in South Africa. Phi Sigma Alpha Student Paper Competition, Brigham Young University.


