

This project explores the role of education in general, and higher education in particular, in the attitudes of Africans towards democracy using selected Afrobarometer data.

This project explores the ability of national university systems to supply the human capital to run the national legislatures in selected African countries. The study uses a combination of primary and secondary sources, including interviews with members of legislatures.

This project explores the role of universities in citizenship development by investigating the political attitudes and behaviours of African students and student leaders. It involves



The Limited Impacts of Formal Education on Democratic Citizenship in Africa

by Robert Mattes and Dangalira Mughogho

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Introduction

Africa is the poorest and most underdeveloped continent in the world. Among many political and social consequences, poverty and lack of infrastructure place significant limitations on the cognitive skills of ordinary Africans, and thus their ability to act as full democratic citizens. Along with limited access to news media, the extremely low levels of formal education found in many African countries strike at the very core of the skills and information that enable citizens to assess social, economic and political developments, learn the rules of government, form opinions about political performance, and care about the survival of democracy.

On the basis of the systematic socio-political surveys that have been conducted in Africa thus far, only a minority of Africans can be called committed democrats (Bratton *et al.* 2005). Yet poorly performing leaders, governments and political regimes are often accorded surprisingly high levels of positive evaluations and high levels of trust by their citizens. These two factors often co-exist in a particularly corrosive form of ‘uncritical citizenship’ whereby citizens exhibit higher levels of satisfaction with the quality of governance and the performance of democracy than actually demand to live in a democracy (Chaligha *et al.* 2002; Mattes & Shenga 2007). Uncritical citizenship stands in direct contrast to Pippa Norris’s (1999) concept of the ‘critical citizen’ who supports the ideals of democracy, yet is likely to identify shortcomings in their representative institutions, elected leaders, and the policies they pursue.

While these maladies of democratic citizenship have usually been attributed to deeply-rooted cultural values endemic to African societies (Chazan 1993; Etounga-Manguell 2000), previous research has found at least some evidence that Africans are more likely to act as agents, rather than subjects, once they develop higher levels of ‘cognitive awareness’ about politics; which includes attending formal schooling, using print and electronic news media, and gaining basic knowledge about political leaders (Evans & Rose 2007a; 2007b; Bratton *et al.* 2005; Mattes & Bratton 2007).

As part of a larger research project on the various linkages between higher education and democracy in Africa, we extend these studies in this paper in three important ways. First, we attempt to unpack the various elements of cognitive awareness and isolate and trace the direct and indirect effects of formal education. Second, we examine the effects of formal education across a much broader range of dimensions of democratic citizenship than others have studied. Finally, we attempt to isolate and assess the specific impact of higher education within this process.

Formal education and democratic citizenship

At least since the 19th century, formal education has held a privileged position in democratic theory. An informed, critical and participatory public, skeptical of government but tolerant and trusting of other citizens, has been widely seen as essential to give life to democracy and safeguard it against other forms of political regimes (Almond & Verba 1963; Diamond 1997; Lipset 1959). Indeed, while its precise impact may vary across countries, and often depend on broader institutional arrangements, public opinion research within Western democracies is virtually unanimous in its conclusion that formal education is strongly linked to political knowledge, interest and involvement (Dalton 1996). In the words of Nie *et al.* (1996: 2):

The notion that formal educational attainment is the primary mechanism behind citizenship characteristics is basically uncontested ... Formal education is almost without exception the strongest factor in explaining what citizens do in politics and how they think about politics.

Education’s impact is usually seen to affect citizenship along at least three paths. First of all, formal education may affect attitudes and behavior via a ‘positional path’ by sorting citizens into differing social networks, situations and classes (Nie *et al.* 1996). Second, formal education may promote democratic citizenship through a ‘socialisation path’ whereby children are explicitly trained to see democracy as preferable to its

alternatives, accept the authority of the democratic state and its officials, and take part in the duties of democratic citizenship. Finally, formal education may facilitate democratic citizenship via a 'cognitive path', increasing both people's verbal and cognitive proficiency, as well as their ability to construct their own ideas and critical thoughts. This cognitive path provides key facts about history and context, plus a greater ability to learn the rules of the political game and the identity of political leaders. 'Critical citizens', in turn, should exhibit a greater ability to tolerate different outlooks, reach reasoned electoral choices, and refrain from extremist doctrines (Lipset 1959; Nie *et al.* 1996; Norris 1999).

But while there is considerable evidence of a positive contribution of formal education to various elements of democratic citizenship in Western societies, formal education has yet to play such a central role in empirical research outside of the industrialised West (though there is growing evidence from Eastern Europe and the former Soviet Union) (see Evans and Rose, 2007a, for a useful review). As Evans and Rose (2007b: 2) demonstrate, the actual evidence of the impact of education in developing societies is 'surprisingly thin'. They argue that one of the key reasons is that, while modernisation theory generally sees education and the development of cognitive skills as a 'social requisite of democracy' (Lipset 1959), it tends to bundle education together with a range of other forces of progress, such as secularisation, urbanisation, industrialisation, affluence, and the expansion of the middle class (Almond & Verba 1963; Inkeles & Smith 1974; Lipset 1959). Indeed, latter-day modernisation theory tends to conclude that education is merely a marker of more important shapers of pro-democratic values, specifically material security (Inglehart & Welzel 2005).

Yet, as Evans and Rose (2007b: 4) argue, we infer the 'democratic returns to education' found in Western settings to developing contexts such as Africa at great risk. Most studies have been conducted in countries where democracy is largely taken for granted, schools make at least some explicit attempt to instill pro-democratic values, and primary and secondary education is almost universal (meaning that the measured impact of

education is usually one of intermediate and higher education). In Africa, however, significant numbers of citizens have never been inside a formal school, and many have never proceeded beyond primary schooling. And for those who have received some schooling, most have been educated in schools run by non-, or less-than-democratic states with no pro-democratic tint to their teaching. Beyond the *content* of what is taught, the dominant style of teaching and learning in Africa's schools is often said to parrot its colonial predecessors, concentrating on rote memorisation and failing to encourage practical skills, critical thinking or autonomous participation (Harber 2002).

Finally, it should be noted that not all scholars would necessarily see this as detrimental to democratic citizenship. A growing number of American political scientists now argue that the role of knowledge and cognitive skills is overstated. They claim that the poorly informed tend to reach the same political opinions and decisions as the well informed, largely because they utilise 'low information reasoning' using personal experience of commonly accessible information (like prices, joblessness, housing construction, etc.) as heuristic cues to evaluate government performance (Lupia & McCubbins 2000; Popkin 1994).

Besides the assumptions of modernisation theory, another principal reason that we know little about the impact of formal education outside of the West has been the lack of good micro-level data. This is beginning to change, however, with the development of various cross-national, longitudinal barometer survey projects in the developing world. In the first book-length analysis of Afrobarometer data, Bratton *et al.* (2005) demonstrated that formal education, along with an associated range of cognitive factors they call 'cognitive awareness of politics', is an important source of popular demand for democracy. Those Africans who have been to school, who use the news media, who know the identity of their political leaders, and who understand democracy as a set of political procedures rather than economic outcomes are far more likely to prefer democracy and reject its authoritarian alternatives. In a further analysis of data from a subsequent survey conducted in a wider

range of countries, Evans and Rose (2007b) showed that the impact of formal education on Africans' demand for democracy is independent of other elements of modernisation, such as occupational class position, economic resources, urbanisation or secularisation.

Higher education and citizenship

Studies of the specific impact of higher education on democratic citizenship are rare. The standard operationalisation of most variables measuring formal education is 'years of education', which assumes that all positive contributions to democratic citizenship accumulate monotonically the longer one stays in school, and then in college or university. In one exception, Dalton (1996) has shown that university education (combined with high levels of political interest) makes an important difference in the way Western voters relate to political parties and election campaigns.

The overall, system-level impact of college and university education in Africa is likely to be minimal simply because so few citizens ever progress to these levels. However, there are good reasons to suspect that the micro-level democratic dividend of higher education might be more substantial. If Africa's schools are the sites of rote learning, its colleges and universities offer at least the possibility of a different pedagogy that may be more effective in promoting critical skills and habits, and enabling students to appreciate diversity, difference, ambiguity, contradiction and nuance (see Cross *et al.* 1999; World Bank 2000). Indeed, university students were a driving force behind the popular protests that brought down autocratic leaders in many countries across Africa in the early 1990s (Bratton & Van de Walle 1997). Younger, university-trained elected representatives have also formed the core of cross-party coalitions that have initiated key reforms in some African parliaments (Barkan *et al.* 2004).

Evans and Rose (2007b) attempted to assess the differing impacts of various levels of education by creating a series

of 'dummy' variables (variables that take either the value of 0 or 1) for different levels of schooling (primary, secondary, post-secondary). They found that each level of education (including post-secondary) made a statistically significant contribution to popular support for democracy. While this is encouraging, the finding is less than conclusive since standard dummy variable analysis is designed to compare to a referent group (in this case, those with no schooling), a series of wholly discrete nominal categories with no overlapping or cumulative content. But education is different. While each category certainly contains a discrete set of respondents, the concept is not discrete. The effect of being in secondary school (compared to having no schooling) also includes the effect of having been in primary school; and the effect of post-secondary education (when compared to those with no schooling) includes the impacts of both primary and secondary schooling. And while the coefficient associated with secondary association might appear to be statistically different from those associated with other categories of education, the coefficients measure the contrast with a 'no education' referent group, not with other categories. Indeed, as Evans and Rose's (2007b) models become more fully specified, the statistical differences between the coefficients associated with secondary and post-secondary education diminish rapidly.

Thus, this paper attempts to take three steps beyond what we already know about the impact of formal education in Africa. First, we attempt to unpack the set of factors that Bratton *et al.* (2005) call 'cognitive awareness' and isolate the discrete contribution of formal education to each of these other factors. Second, we examine the impact of education on a much wider range of facets of democratic citizenship than previous studies of Afrobarometric data. We compare the impact of formal education on: (1) rates of political participation; (2) the ability to formulate political opinions; (3) basic democratic values; and (4) the willingness to offer critical performance evaluations. Third, we examine the distinctive impact of higher education by re-analysing all these linkages only among those who have finished high school (or technical training), distinguishing those who have had at least some university education.

The Afrobarometer

In order to both measure levels of formal education and test its impacts on the values and behaviours of democratic citizenship, we turn to a series of representative public opinion surveys known as Round 3 of the Afrobarometer. In Round 3, the Afrobarometer was a joint enterprise of the Center for Democratic Development (CDD-Ghana), the Institute for Democracy in South Africa (Idasa) and Michigan State University. Fieldwork, data entry, preliminary analysis, and the dissemination of survey results were conducted by national partner organisations in each African country.

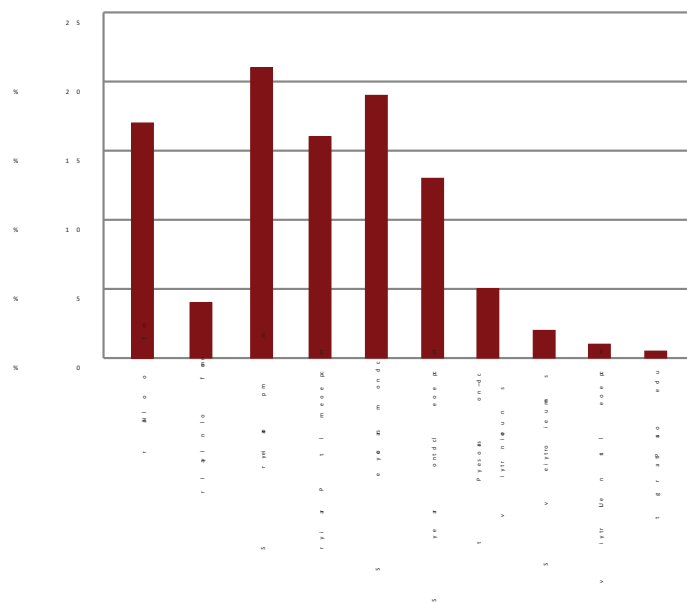
Round 3 of the Afrobarometer was conducted in 2005 among 18 sub-Saharan African countries that had introduced a measure of democratic and market reforms: Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia and Zimbabwe in Southern Africa; Benin, Cabo Verde, Ghana, Mali, Nigeria and Senegal in West Africa; and Kenya, Madagascar, Tanzania and Uganda in East Africa. Respondents are selected using a random, stratified, multistage, national probability sample representing adult citizens aged 18 years or older. Each country sample (1 200 in most countries, with larger samples in South Africa and Nigeria) yields a margin of error of ± 3 percentage points at a 95% confidence level. Overall, 21 600 Africans were interviewed in Round 3. The pooled, cross-country sample is equally weighted to standardise national samples at $n = 1200$.¹ All interviews were conducted face-to-face by trained fieldworkers in the language of the respondent's choice.

In general, Afrobarometer surveys can only be conducted in the continent's most open societies. Hence the results do not represent the continent – or all Africans – as a whole. With this caveat, the Afrobarometer casts light on popular attitudes to democracy among Africans, a subject on which almost nothing is otherwise known.

Formal education in Africa

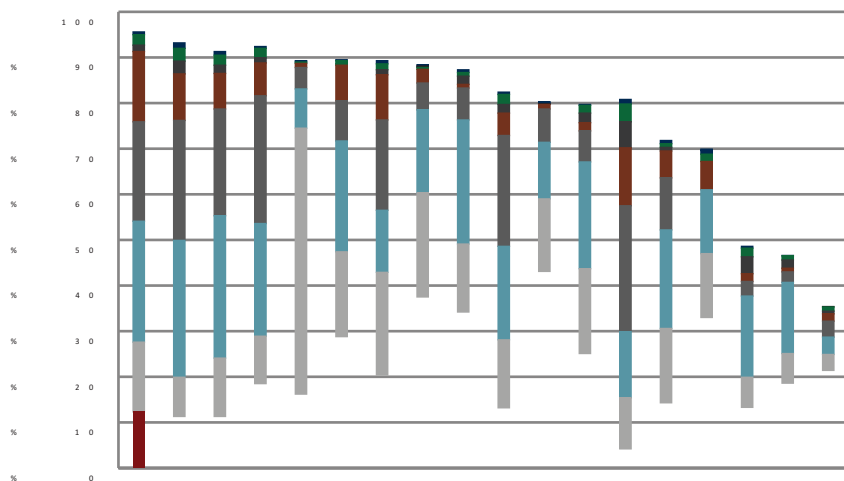
In response to the question, 'What is the highest level of education you have completed?' 17% of the 21 600 adults interviewed by the Afrobarometer across 18 countries told interviewers that they had no formal education (though 4% say they have had some informal schooling, consisting mostly of Islamic Koranic schools – see Figure 1). Of the total, 21% had some primary education, and a further 16% went as far as completing primary school. Just over one in ten adults (13%) said they had completed a high school education. And less than one in ten (9%) went beyond high school, with just 2% completing university education.

Figure Formal education across African countries



1 For further details on sampling and fieldwork, see Appendix A.

Figure Access to formal education



Access to formal education varies widely across countries² While large proportions of adults in West Africa have no formal schooling (over 50% of the sample in Benin, over 40% in Mali, and 25% in Ghana and Senegal), the relevant proportions are relatively low in southern Africa (less than 10% in Zambia, South Africa, Namibia and Zimbabwe).

Formal education also varies in other important ways. The correlation coefficients listed in Table 1 show that older Africans are far less likely to be educated than their younger counterparts, as are rural dwellers compared to urbanites, and women compared to men. In turn, we also find that educated Africans are far less likely to experience what we call *lived poverty* (measured as the frequency with which respondents go without a range of basic necessities) (see Figure 2).

² 'Country' accounts for 18% of the variation around the mean of education (Eta² = 0.177 and Eta = 0.421, p < 0.001).

Table Demographic correlates of formal education

	Formal education
Age	-0.281***
Rural	-0.279***
Lived poverty	-0.255***
Female	-0.107***

n = 21 583

Formal education and cognitive awareness of politics

To what extent does formal education lead Africans to develop a deeper 'cognitive awareness of politics'? To what extent does it promote *news media use*³ (measured as the weekly rate of

³ Factor analysis extracted a single unrotated factor (Eigenvalue 1.78) that explains 59.8% of total variance of the three items. Index reliability (Cronbach's Alpha = 0.65) is acceptable (n = 21 600).

reading newspapers, or listening to radio or watching television news), and the accumulation of *political information* (measured as the extent to which respondents are able to provide correct answers to three questions about the identity of political leaders, and three questions about the constitutional and governmental system)?⁴ We also wonder whether, and how much formal education facilitates *cognitive engagement* (measured as the frequency of political discussion with friends and neighbors, combined with their degree of interest in politics),⁵ and a sense of *political efficacy* (indicated by the belief that one is able to understand government affairs, and that other people listen to what you have to say about politics).⁶ For a point of comparison, we also test the relative contribution to cognitive awareness of identification with a political party and membership in civic associations. Previous research shows that these factors are often important determinants of a mobilised, rather than

autonomous form of participation and citizenship in Africa (Bratton *et al.* 2005).

We begin by examining the bivariate linkages of each of these factors. We find that formal education in Africa is strongly correlated with news media use and political information, but has a more modest linkage with cognitive engagement, and virtually nothing in common with political efficacy (Table 2). Formal education also makes a far greater difference for news media use, and the acquisition of political information than do identification with a political party or membership in a civic group. However, it appears that group membership and partisan loyalty promote cognitive engagement with politics at least as well as formal education.

Each of these coefficients is, however, inflated because they mask the fact that each variable shares similar patterns on demographic variables (age, rural/urban location, gender and poverty), as well as overlapping variance with the other elements of cognitive awareness. Thus, in order to obtain the cleanest assessment of the independent linkage of formal education with each element of cognitive awareness, we calculate partial correlation coefficients; that is, we re-calculate each correlation while holding constant their demographic correlates and other elements of cognitive awareness.

- 4 Factor analysis identified two factors, the first of which explains 36.2% percent of total variance with an Eigenvalue of 2.17. Index reliability (Cronbach's Alpha = 0.64) is acceptable (n = 22 600). Also a comparison of questions on awareness of incumbents with previous surveys suggests a high degree of test-retest reliability. To be sure, measuring citizens' information is always a tricky affair; findings often differ sharply depending on whether researchers ask respondents to recall certain facts from memory, or recognise them from a list of several possible answers. Thus, because the Afrobarometer uses the recall method, one should be aware that these findings might understate the actual level of awareness.
- 5 The two items are sufficiently correlated (Pearson's r = 0.33) and reliable (Cronbach's Alpha = 0.50) warranting the creation of a two item average construct (n = 21 600).
- 6 The two items are sufficiently correlated (Pearson's r = 0.48) and strongly reliable (Cronbach's Alpha = 0.65) warranting the creation of a two item average construct (n = 21 600).

Table Formal education and cognitive awareness bivariate correlations

	Formal education	Party identification	Group membership	Media use	Political information	Cognitive engagement
Partisan identification	0.040***					
Group membership	0.074***	0.100***				
News media use	0.494***	0.038***	0.116***			
Political information	0.355***	0.186***	0.174***	0.308***		
Cognitive engagement	0.171***	0.271***	0.166***	0.218***	0.273***	
Political efficacy	0.046***	0.052***	0.034***	0.069***	0.088***	0.104***

Pearson's r correlation coefficients
 N = 21 482, NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Table 3 confirms that citizens with higher levels of formal education are indeed far more likely to use news media and to be aware of the identity of leaders, as well as other basic political facts and constitutional rules. However, formal education seems to offer no real advantage in terms of increasing citizens' cognitive engagement or political efficacy. Cognitive engagement seems to be promoted far more effectively by identification with a political party and, to a lesser extent, membership in civic organisations. Thus, the main impact of formal education in Africa on the cognitive awareness of politics is through the stimulation of news media use and by giving citizens the skills to accumulate basic facts about the political system, rather than of increasing cognitive engagement or efficacy.

Taking note of the partial correlations amongst the other variables, we can construct the beginnings of a proto path model where formal education's main impacts are in stimulating news media use, and the accumulation of political information (see Figure 3). In turn, both political information and news media use bring about higher levels of cognitive engagement. Political efficacy, apparently, develops in isolation of either enlightenment or mobilisation. Thus, to the extent that formal education has an indirect impact on other elements of democratic citizenship, we observe that it flows primarily through greater news media use and higher level of factual knowledge about politics. Given the results of the multivariate assessment of the linkages amongst cognitive awareness, we turn to assess the impact of formal education on a range of aspects of democratic citizenship, by first estimating its direct effects but also by measuring its indirect effects via increased news media use and the accumulation of political information. Do higher individual levels of higher formal education, either directly or indirectly, promote higher individual rates of democratic participation in Africa? Does it make Africans more articulate? Do they promote greater endorsement of key democratic values? And do they make people more critical of political and economic performance?

Our method of analysis is as follows. First, in order to estimate the *direct impact* of formal education (as well as news media use

and political information), stripped of the impact of its correlates, we conduct multivariate, ordinary least squares regression analysis in which these variables are regressed, iteratively, on a series of dependent variables; in each case, we hold constant cognitive engagement, efficacy, age, rural/urban location, gender, and lived poverty. The direct impact of formal education -- as well as of news media use and political information -- is expressed by the unstandardised regression coefficient, or *b*, for each variable. The unstandardised regression coefficient (*b*) should be read in conjunction with the 'intercept', which gives us the value of the dependent variable for those respondents who score 0 on the independent variables: that is, amongst poor, rural, females, aged 18–25, with no formal education, and no other cognitive awareness of politics. Second, in order to get our best estimate of the *direct and indirect explanatory powers* of education, we run two further analyses in which we calculate block adjusted R^2 estimate of *only* formal education, news media use, and political information, and lastly of *only* formal education (which strips out the overall explanatory contributions of non-cognitive elements of age, gender, urban residence, or poverty).

Formal education cognitive awareness and political participation

We begin by asking whether educated Africans are likely to become involved in democratic politics. We examine the direct and indirect (via increased political information and use of the news media) effects of education on conventional forms of participation, ranging from relatively simple acts such as identifying with a political party, registering to vote, and voting, to increasingly difficult forms such as joining civic associations (religious, community and business groups, as well as trade unions), taking part in community affairs (attending community meetings and working with other people on local issues), and contacting formal leaders (such as MPs, local councillors and government officials) and informal leaders (such as religious and traditional leaders). We also test for linkages with unconventional forms of participation, specifically taking part in protests.

Table Formal education and cognitive awareness multivariate correlations

	Formal education	Party identification	Group membership	Media use	Political information	Cognitive engagement
News media use	0.305***	0.118***	0.104***			
Political information	0.230***	-0.019**	0.105***	0.108***		
Cognitive engagement	0.034***	0.223***	0.092***	0.126***	0.134***	
Efficacy/competence	0.002NS	0.017*	0.003NS	0.032***	0.042***	0.040***

Partial correlation coefficients controlling for age, rural/urban location, gender, lived poverty, group membership and partisan identification, as well as every other element of cognitive awareness
 N = 21 157, NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Figure Formal education and elements of cognitive awareness

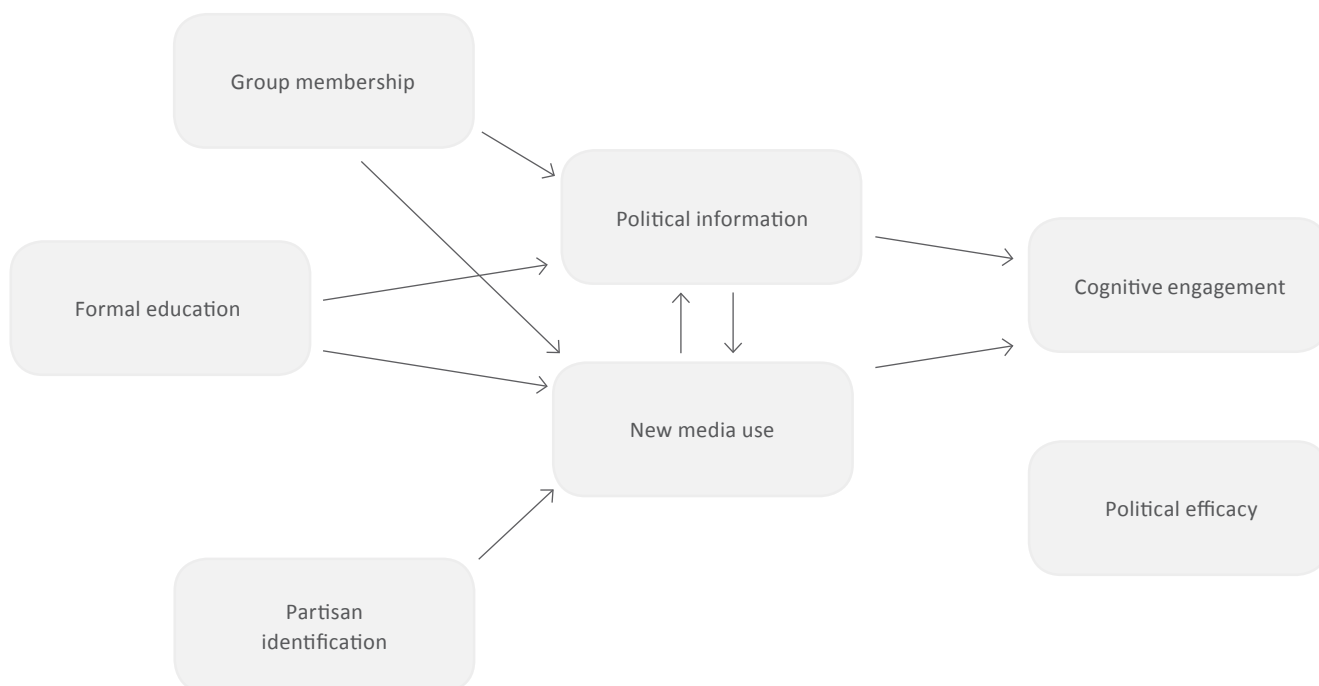


Table Formal education cognitive awareness and political participation

Looking at the second-last column of Table 4, we see that the combined effects of formal education, political information and news media use tell us very little about who does and does not participate in African politics. Only with regard to contacting formal leaders do these cognitive factors form a substantial part of the explanation (jointly explaining 5% of the variation in this activity). The direct explanatory power of formal schooling is even more negligible (final column). Looking at the second column, we can see that after holding constant a range of associated factors, education has statistically significant correlations only with contacting officials and joining civic association – and the size of the effect is miniscule.

Formal education cognitive awareness and articulateness

If formal education makes little difference to political participation in Africa, does it at least increase ordinary Africans’ abilities to articulate preferences and opinions about political

life? We assess people’s ability to offer opinions about the state and political regime in which they live in several ways. First we use a single item that measures respondents’ ability to provide a response spontaneously to an open-ended question that asked: ‘What, if anything, does “democracy” mean to you?’ We also use three valid and reliable indices that assess respondents’ abilities to offer preferences and opinions (regardless of whether they are positive or negative). The first index simply sums the number of substantive opinions respondents were able to offer across 20 questions on the performance of democracy (the freeness and fairness of elections, satisfaction with democracy, and the extent of democracy) and government (the extent of official corruption, the responsiveness of elected representatives, the degree to which the electoral system produces accountability, and the overall job performance of key incumbent leaders). The second index measures people’s ability to offer preferences about democracy and non-democratic alternatives across four survey items. And the third measures people’s ability to give their preferences to 27 question items that ask about political, social and economic values.

Table Formal education cognitive awareness and articulateness

	Intercept	Formal education b	News media Use b	Political information b	Block R All	Block R Education	n
Able to offer opinion on performance (0–20)	13.70	0.313***	0.315***	0.437***	0.108	0.066	21 105
Able to offer opinion on democracy (0–4)	3.37	0.032***	0.048***	0.057***	0.097	0.053	21 161
Able to offer meaning of democracy (0–1)	0.48	0.013***	0.052***	0.030***	0.091	0.042	21 182
Able to offer responses to value questions (0–27)	25.24	0.053***	0.040***	0.227***	0.079	0.036	19 903

Controlling for age, rural/urban location, gender and lived poverty, as well as cognitive engagement and efficacy
 NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

The results in Table 5 reveal substantial direct and indirect impacts. Higher levels of education, news media use, and political information each make significant and positive contributions to increasing Africans’ ability to offer opinions (positive or negative) about the performance of the political system (11% variance explained), provide preferences about democracy versus alternative regimes (10%), and a range of social and political values (8%), as well as provide some meaning to the word ‘democracy’ (9%). By itself, formal education explains 6% of the variance in people’s ability to evaluate political and economic performance, and 5% of their ability to offer a meaning of democracy.

Formal education cognitive awareness and democratic values

Acknowledging that educated Africans are more likely to offer preferences and opinions, we now turn to examine the content of those expressed attitudes. We begin by examining people’s values, as measured by a wide range of different questions in the Afrobarometer that ask people about democracy and its alternatives, as well as tap their support for a range of other democratic practices and norms.

First, we attempt to replicate earlier findings (Bratton *et al.* 2005; Evans & Rose 2007a; 2007b; Mattes & Bratton 2007), and to test the direct and indirect impacts of formal education on public *demand for democracy* (measured as support for democracy and rejection of presidential dictatorship, military rule and one party rule). We also assess whether education encourages Africans to embrace a series of key democratic values.

We tap popular *demand for the rule of law*, we construct an index from three questions that assess whether respondents feel: (1) ‘It is important to obey the government in power no matter who you voted for’; (2) ‘It is better to find legal solutions to problems even if it takes longer’; and (3) ‘The use of violence is never justified in [e.g. your country’s] politics today’. We also assess *opposit on to corrupt on* by asking respondents whether different corruption scenarios are ‘wrong and punishable’. We measure *demand for freedom of expression* through three questions that ask people whether: (1) ‘The news media should be free to publish any story that they see fit without fear of being shut down’; (2) ‘People should be able to speak their minds about politics free of government influence’; and (3) ‘We should be able to join any organisation, whether or not the government approves of it’. To assess *demand for polit cal equality*, we use

government, 'are responsible for their own well-being'; (3) and whether people 'should be more active in questioning the actions of our leaders'.

Table 6 confirms earlier findings that education has a positive and sizable impact on the demand for democracy by itself and indirectly through news media use and political information, each of which also has a positive impact (a 'block' adjusted R² of 9%). We also find that education has a notable impact on people's stated willingness to confront bureaucratic intransigence and demand accountability (4%). Across the rest of these values, however, the total impact of education, news media use and political information is negligible to non-existent. While formal education generally increases the accountability,⁹ the overall size of the impact is almost always very small. In general, cognitive factors seem to have very little to do with whether or not Africans hold democratic values or predispositions.¹⁰

Formal education cognitive awareness and critical citizenship

If they are not especially likely to hold more pro-democratic dispositions, are educated Africans more likely to offer critical evaluations of political and economic performance? We examine the impact of formal education, news media use and political information on a wide range of evaluations of political performance. At the broadest level of the political regime, we begin with Africans' evaluations of the *supply of democracy* provided by their multiparty regime (calculated as someone who both thinks they are living in a democracy and is satisfied with the way democracy works). At an intermediate level, we look at the perceived *legitimacy of the political system* (an index of responses to questions about whether the constitution reflects the values of all citizens, and the right of the police, courts and

tax authority to make people comply with their decisions). People's evaluations of *the status of political freedoms* are measured by a series of questions that ask whether people's ability to say what they want, join any organisation they want, vote without fear, influence government and not worry about either arbitrary arrest or crime has improved over the past five years. We measure *trust in state institutions* (police, army and courts), *government institutions* (president, parliament, local councilor, electoral commission and governing party), *state media* (electronic and print) and *independent media* (electronic and print).

At the most specific level, we measure evaluations of *presidential performance* and the performance of other representatives (MPs and local councilors), the *extent of corruption* amongst state officials (police, judges, tax officials, health workers and teachers) and government leaders (president, MPs, local councillors), as well as the perceived *responsiveness of elected officials* (again, MPs and local councillors). We measure even more specific evaluations of *government policy performance* with regard to macro-economic management (economic management, creating jobs, keeping prices low, narrowing the income gap and delivering food), delivering services (health care, education, water and HIV/AIDS programmes), fighting crime and corruption, and *local government performance* in delivering a range of goods (maintaining roads, keeping the community clean, collecting taxes and spending revenues). Finally, we use Afrobarometer items that ask people about the *status of economic goods* (whether there are more goods, more jobs, and a smaller income gap than five years ago), their economic expectations and their evaluations of current national and personal economic conditions.

Since we have just demonstrated that educated Africans are consistently less likely to say they 'don't know', we conducted these analyses using versions of the dependent variables that exclude 'don't know' responses.¹¹ Three main findings emerge

9 However, consistent with earlier research (Bratton *et al.* 2005) we find that educated Africans are less likely to favor a universal franchise.

10 The results shown in Table 6 were calculated on dependent variables where 'don't know' responses were recoded to middle categories on the response scale. Because more educated respondents were less likely to say they 'don't know' across these items, we also recalculated each of these equations using dependent variables that excluded the 'don't know' responses. The results were virtually identical across all items.

11 We replicated this analysis for each item with a version of the variable that recodes 'don't know' responses to a middle category. In contrast to values, we found that the combined impact of education, news media use and political information was consistently larger when we use the versions that exclude 'don't know' responses.

(see Table 7). First, formal education, media use and political information have sizeable impacts on how people evaluate the national economy, the status of political rights, and the degree of trust they place in government and state. Second, with one exception, formal education consistently has a statistically significant and negative impact on performance evaluations. Thus, schooling not only enables Africans to offer more opinions, it also allows them to offer more critical opinions. Third, the contributions that formal schooling makes toward enabling more critical citizenship are mitigated by the effects of higher levels of political information and, sometimes, the effects of news media use. That is, while education (holding constant media use and information) makes people more critical of performance, we know that formal education simultaneously leads people to acquire greater amounts of political information, which in turn (holding constant education and news media use) make people consistently more forgiving of bad performance (see the unstandardised coefficients for political information in Table 7). Moreover, while higher levels of news media consumption sometime induce greater criticalness, they more often have the opposite effect of making people more forgiving.

Higher education and democratic citizenship

Against this broad context of formal education’s overall effects, which was based on a comparison of respondents across the full spectrum of the educational scale, we now narrow our focus to examine the particular impact of higher education. As seen in Table 1, the overall political impact of college and university education in Africa on citizen behavior is likely to be minimal simply because so few citizens ever progress to these levels. However, there are many good reasons to suspect that the micro-level democratic payoff might be more substantial. If Africa’s schools are the sites of rote learning, its colleges and universities offer at least the possibility of a different pedagogy. Higher education may be effective in promoting critical skills and habits, and encouraging students to appreciate diversity, difference, ambiguity, contradiction and nuance (see Cloete & Muller 2007; Cross *et al.* 1999; World Bank 2000). As noted

earlier, university students were a driving force behind the popular protests that brought down many of Africa’s dictators in the early 1990s (Bratton & Van de Walle 1997), and younger, university-trained elected representatives have formed the core of cross-party coalitions that have initiated recent reforms in some African parliaments (Barkan *et al.* 2004).

In order to assess the degree to which Africans who have been to college or university think or act differently, and to isolate that impact from the fact that Africans who have been to college or university also have a high school diploma, we restrict all subsequent analysis to only those who have completed a high school education, comparing those with any university exposure to those who have either completed high school or have some technical training (see Figure 4).

Figure University attendance by country

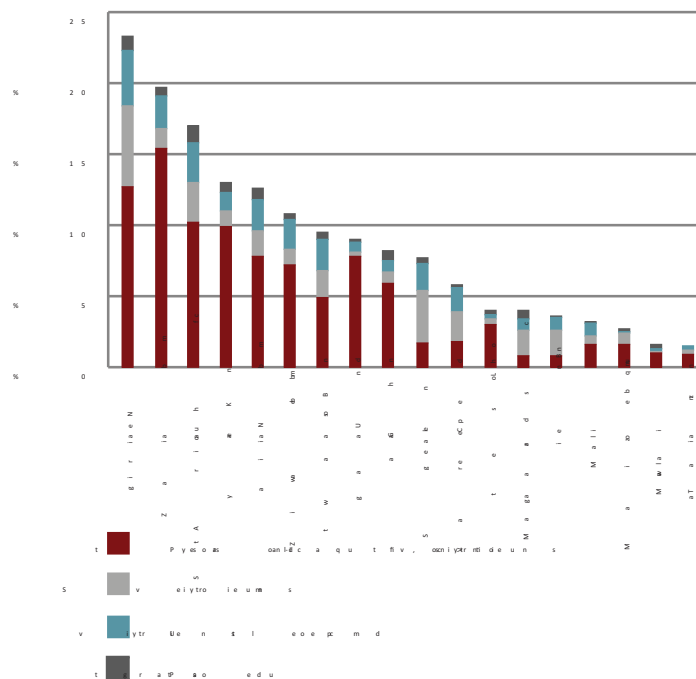


Table Formal education cognitive awareness and performance evaluations

	Intercept	Formal education b	News media use b	Political information b	Block R All	Block R Education	n
Personal economic conditions (0–4)	1.75	0.011***	0.115***	0.020***	0.091	0.043	20 123
Status of political freedom (0–4)	2.60	-0.089***	0.008 ^{NS}	0.098***	0.059	0.009	19 073
Trust government institutions (0–4)	2.66	-0.146***	-0.065***	0.070***	0.055	0.038	17 407
Trust state media (0–4)	3.10	-0.168***	-0.046***	0.069***	0.054	0.039	13 079
Economic expectations (0–4)	2.42	-0.075***	0.110***	0.078***	0.046	0.001	17 759
Status of economic goods (0–4)	1.24	-0.039***	0.084***	0.054***	0.038	0.003	19 707
Trust state institutions (0–4)	2.88	-0.122***	-0.053***	0.028***	0.036	0.032	19 380
Government economic performance (0–4)	1.27	-0.056***	0.074***	0.058***	0.034	0.000	18 224
Supply of democracy (0–4)	1.74	-0.082***	0.031***	0.048***	0.030	0.009	17 020
National economic conditions (0–4)	1.68	-0.021***	0.067***	0.041***	0.030	0.007	20 426
Government service delivery (0–4)	2.26	-0.044***	0.028***	0.057***	0.029	0.000	18 982
Presidential performance (0–4)	2.62	-0.102***	-0.045***	0.106***	0.026	0.009	19 909
Elections free and fair (0–4)	3.04	-0.122***	-0.039***	0.048***	0.022	0.015	19 149
Representative performance (0–4)	2.44	-0.098***	-0.034***	0.032***	0.018	0.013	17 753
Local government delivery (0–4)	2.09	-0.068***	0.048***	0.023***	0.014	0.001	17 572
Government corruption (0–4)	1.27	0.043***	0.079***	-0.005 ^{NS}	0.011	0.008	14 191
State legitimacy (0–4)	2.62	-0.020***	0.010 ^{NS}	0.042***	0.010	0.000	16 143
Government responsiveness (0–4)	1.24	-0.049***	0.016 ^{NS}	0.041***	0.009	0.002	18 495
Trust independent media (0–4)	2.70	-0.082***	0.032**	0.021**	0.009	0.005	14 670
State corruption (0–4)	1.38	-0.003 ^{NS}	0.056***	0.022***	0.004	0.002	14 690

Controlling for age, rural/urban location, gender and lived poverty, as well as cognitive engagement and efficacy
 NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

We begin by repeating the same initial analyses we conducted on formal education and examine the bivariate associations of post-secondary education among this smaller group of school leavers (Table 8). We see one interesting contrast: while African citizens with higher levels of formal schooling tend to be younger than their less educated respondents, those who have been to university tend to be slightly older than those with a high school education only. Otherwise, university attendees are similar to the overall profile of educated people: they are more urban, and more male, and they also are less likely to experience poverty than high school graduates. But the differences between these two groups are far less pronounced than across the full educational spectrum.

Table Demographic correlates of formal education

	Formal education	High school completed vs at least some university
Age	-0.281***	0.059***
Rural	-0.279***	-0.141***
Lived Poverty	-0.255***	-0.146***
Female	-0.107***	-0.060***
n	21 269	4 721

Pearson's r correlation coefficients
 NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Similarly, the effects of higher education (when compared to those of high school education) on news media use and political information are also far more modest than those of formal education in general (see Table 9). And once we apply the relevant multivariate controls, we see that those who go on to university education are only slightly more likely to use the news media or know basic facts about the political system than ordinary school-leavers (Table 10).

Given these results, we again conduct multivariate, ordinary least squares regression analyses in which formal education is regressed, iteratively, on a series of dependent variables

holding constant the four key elements of cognitive awareness (news media use, political information, cognitive engagement, and efficacy) as well as age, rural/urban location, gender and poverty. This enables us to isolate the independent statistical impact of higher education. But since we have demonstrated that there appears to be little chance of an appreciable 'knock-on' effect of higher education via greater use of news media or the acquisition of more political information, we estimate a 'block' R² by simply regressing each dependent variable on higher education only.

Does university education appreciably increase democratic political participation in Africa? Table 11 shows that Africans with at least some university education are less likely than high school graduates to identify with a political party, and more likely to become involved in protest and contact formal officials, the absolute size of the difference is relatively small.¹² As with formal education in general, higher education plays no role in encouraging people to join civil society organisations, become involved in community affairs, or vote.

Compared to high school leavers, university attendees are very slightly more able to offer opinions on government performance, but exhibit no statistically significant differences in terms of their ability to provide a meaning of democracy, or offer preferences about democracy and a range of other social and political values.

The most consistent impacts of university education can be seen in terms of performance evaluations. Controlling the other elements of cognitive awareness and demographic factors, we find that (with one exception), university attendees are consistently more likely to offer more critical evaluations of the performance of their economies, governments and political regimes. At the same time, the size of the impact is quite limited. At most, those who have been to university are only about one-fifth to one-fourth of a point more negative than high school graduates on four- or five-point scales.

¹² Interestingly, higher education has no statistically significant impacts when entered into a regression analysis on its own. Significant impacts emerge only after holding constant other elements of cognitive awareness and demographic factors.

Table Post secondary education and cognitive awareness bivariate correlations

	Some university	Party identification	Group membership	News media use	Political information	Cognitive engagement
News media use	0.176***	-0.008 ^{NS}	0.057***			
Political information	0.108***	0.125***	0.189***	0.145***		
Cognitive engagement	0.107***	0.213***	0.175***	0.175***	0.210***	
Efficacy/competence	0.048***	0.064***	0.053***	0.080***	0.106***	0.151***

Pearson's r correlation coefficients
 n = 471, NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Table Post secondary education and cognitive awareness multivariate correlations

	Some university	Party identification	Group membership	News media use	Political information	Cognitive engagement
News media use	0.081***	0.013 ^{NS}	0.072***			
Political information	0.060***	0.086***	0.142***	0.058***		
Cognitive engagement	0.077***	0.182***	0.106***	0.140***	0.113***	
Efficacy/competence	0.018 ^{NS}	0.028 ^{NS}	0.007 ^{NS}	0.035*	0.039**	0.110***

Pearson's r correlation coefficients
 n = 4 686, NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Table Formal education cognitive awareness and political participation

	Intercept	At least some university	News media use	Political information	Block R all	Block R High Ed	n
Partisan identification		-0.126***				0.006	4 699
Protest		0.149***				0.006	4 699
Formal contact		0.049*				0.004	4 231
Group membership		0.057 ^{NS}				0.001	4 697
Community participation		0.034 ^{NS}				0.000	4 699
Informal contact		0.007 ^{NS}				0.000	4 076
Registered and voted		0.000 ^{NS}				0.001	4 699

Controlling for age, rural/urban location, gender and lived poverty, as well as cognitive engagement and efficacy
 NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Table Formal education cognitive awareness and articulateness

	Intercept	Some university b	News media use b	Political information B	Block R all	Block R High Ed	n
Able to offer opinions on government performance		-0.284*			0.000		4 686
Able to offer meaning of democracy		-0.016 ^{NS}			0.000		4 699
Able to offer preferences on democracy		0.002 ^{NS}			0.001		4 695
Able to offer value preferences		-0.066 ^{NS}			0.000		4 222

Controlling for age, rural/urban location, gender and lived poverty, as well as cognitive engagement and efficacy
 NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Table University education and democratic values

	Intercept	Some university b	News media use b	Political information B	Block R all	Block R High Ed	n
All people should have equal vote		0.002			0.002		4 233
Leaders should listen to people		0.000			0.000		4 230
Demand bureaucratic accountability		0.000			0.000		4 699
Demand freedom of expression		0.000			0.000		4 698
Demand for democracy (0-4)		0.002			0.002		4 699
Demand gender equality		0.001			0.001		4 232
People responsible for well-being		0.001			0.001		4 232
Demand rule of law		0.000			0.000		4 698
Demand representative accountability		0.000			0.000		4 699
Opposition to corruption		0.000			0.000		4 698
People should question leaders		0.000			0.000		4 232
Interpersonal trust		0.000			0.000		4 232

Controlling for age, rural/urban location, gender and lived poverty, as well as cognitive engagement and efficacy
 NS p = >0.05, * p = <0.05, ** p = <0.01, *** p = <0.001

Conclusion

Africa is a continent of 'low information societies' characterised by poor communications infrastructure, limited access to news media, low levels of schooling and even lower levels of access to higher education (Mattes & Shenga 2007). Against this backdrop, one might expect that the limited availability of education would provide significant advantages for the minority of citizens who are able to attend school or university. The evidence reviewed in this paper does indeed suggest that Africa's schools and universities have paid some democratic dividends.

Viewed across 18 countries, increasing levels of formal education both enable and stimulate Africans to make greater use of the media to get news about politics. It also facilitates citizens' acquisition of the basic information that allows them to make sense of the larger political system. Both news media use and political information, in turn, lead citizens to become much more cognitively engaged with politics, both taking a greater interest in and actively discussing politics with friends and neighbours (though education plays no direct role in this respect).

Africans with higher levels of schooling are also more likely to display key critical skills. Not only are educated respondents more likely to formulate preferences and offer evaluations of political and economic performance, they are also more likely to offer critical opinions, especially in terms of how they rate the national economy and the degree to which they distrust government and state institutions, including state-run news media. Higher levels of schooling also lead Africans to demand democracy; that is, to see democracy as the most preferable regime and to reject non-democratic forms of government such as the one-party state, strong-man dictators or military rule.

Beyond the preference of democracy to other regimes, however, formal education does not produce other democratic orientations. There are few significant, and even fewer substantive differences between less and more educated respondents in terms of a wide range of values such as individualism, equality, expression, trust in others, accountability, or probity

in government. Finally, education makes an extremely limited contribution to political participation. Educated respondents are more likely to contact formal officials (a more individualistic form of participation), they are no more or less likely to vote, identify with a political party, join civic groups, get involved in community affairs or protest.

Higher education, however, has far more limited effects on enhancing democratic citizenship. Those Africans with a university education are, indeed, more critical of the performance of the economy, their government and the larger political regime, though the size of the differences are small. In general, those Africans who have attended university display few statistically significant, and even fewer substantively important differences with high school graduates in terms of political information, news media consumption, political participation, articulateness or pro-democratic values.

Even with the enormous challenges faced by Africa's schools, students who move up the educational ladder and complete high school become more knowledgeable, more articulate and more critical democrats (at least in comparison to the majority of citizens interviewed in the 18 countries included in the Afrobarometer surveys of 2005/2006 who had a primary school education or less). Why, however, do we fail to see any further democratic progress amongst those who have managed to get a university education? Is it the content of the curricula that fails to provide any greater knowledge or stimulate interest and engagement? Or is it the style of teaching that fails to kindle debate and greater critical thinking? Has the brain drain simply robbed the continent's universities of too many of its intellectuals and qualified lecturers? Or does a lack of resources and massive overcrowding simply overwhelm both students and teachers and the impact of a few elite universities?

not only cross-national and cross-regional differences within Africa, but focus it to allow us to compare across universities and curricula. Answering these questions through a sustained research programme will not only improve the quality of higher education, but also assist in the development of democracy on the continent.

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Appendix A Sampling protocol

Afrobarometer surveys are based on national probability samples representing cross-sections of adult citizens in each country. The goal is to give every individual an equal and known chance of inclusion in the sample via random selection at every stage.

In six countries, a sample of 1 200 individuals allows inferences to national adult populations with a margin of error of no more than plus or minus 2.8% with a confidence level of 95%. When the sample size is increased to at least 2 000 (in five countries), the confidence interval shrinks to plus or minus 2.2% to 1.6% percent for a sample of 3 600 (in Nigeria).

The sample universe includes all citizens of voting age. Excluded are non-citizens and anyone under the age of 18 years on the day of the survey. Also left out are people living in institutionalised settings, such as prisons, student dormitories and hospitals. We also exclude inaccessible areas, such as zones of armed conflict or natural disaster, as well as national parks and game reserves.

The design is a clustered, stratified, multi-stage, area probability sample. Geographically defined sampling units of decreasing size are selected in four stages:

Stage one Selecting primary sampling units PSUs

Primary sampling units (PSUs) are the smallest, well-defined geographic units for which reliable population data are available. Since the Afrobarometer employs the most recent official national census as a sampling frame, PSUs are usually census enumeration areas. A sampling expert from the national census bureau is usually commissioned to draw the sample to Afrobarometer specifications.

The sample universe is stratified, first by area (region/province) and then by residential locality (urban or rural). The regional stratification increases the likelihood that distinctive ethnic or language groups are included in the sample. The sample is distributed across each locality in each region in proportion to its share in the national population. The total number of PSUs is determined by calculating the maximum acceptable degree of clustering. Because PSUs can be geographically small and socially homogenous, we prefer to accept no more than eight interviews per PSU. A sample of 1 200 therefore contains 150 PSUs; a sample of 2 000 contains 250 PSUs; and a sample of 3 600 contains 450.

PSUs are then sampled within each stratum using random methods. If PSUs have roughly equal populations, then simple random sampling (SRS) is sufficient. If – more commonly – the PSUs have variant populations, then random sampling is conducted with probability proportionate to population size (PPPS), which correctly gives units with larger populations a greater probability of being chosen. In urban areas with extremely diverse housing patterns, an additional layer of stratification may be added to ensure that the sample does not leave out low-density (especially informal) settlements. Using a street map, a city or town is divided into high-, medium- and low-density areas. PSUs within each area are then represented equally (or better yet, in proportion to population sizes, if these are known) within the sample for that city or town.

Once enumerator rates (EAs) are randomly selected they are plotted on a national map, enabling survey managers to plan travel routes for the fieldwork. In cases where PSUs are inaccessible, substitution is made by randomly drawing another EA. If more than 5% of PSUs require substitution, then the entire stage one sample is discarded and a new one is drawn. If

important minority groups are missed or covered too scantily to

pattern includes such, then the interviewer starts on the top floor and works his/her way downwards, stopping at every *n*th flat on the right. In an exception to the normal walk pattern, which only refers to blocks of flats, the interviewer should only visit alternate floors of the block.

In sparsely populated rural areas, with small villages or single-dwelling farms, there may be only a few households around a given start point. We do not wish to over-cluster the sample by conducting too many (e.g. all 8) interviews in one small village. In these cases, the following guidelines apply: If there are 15 or fewer households within walking distance of the start point, the field team shall drop only one interviewer there. If there are 16–30 households within walking distance of the start point, two interviewers are deployed. If there are more than 50 households, the whole team can operate in the same locality as usual. When only one or two interviewers are deployed, the rest of the team moves to the nearest housing settlement within the same EA and closest to the SSP, where fieldwork proceeds according to the above rules.

Each interviewer obtains two interviews per PSU (4 interviewers x 2 interviews = 8 interviews, the quota for the PSU). After completing the first interview, he or she follows the same procedure as before. He/she continues walking in the same direction and chooses the *n*th dwelling on the right (where *n* = the day code) for the second interview. If the settlement comes to an end and there are no more houses, the interviewer turns at right angles to the right and keeps walking, again looking for the *n*th dwelling on the right. This procedure is repeated until the interviewer finds an eligible dwelling containing an eligible household.

Stage four Selecting individual respondents

Once the household is identified, the interviewer randomly selects an individual respondent from within the household. To ensure that women are not underrepresented, the Afrobarometer sets a gender quota of an equal number of men and women in the overall sample, accomplish by alternating interviews by

gender. First, the interviewer determines from the previous interview whether a male or female respondent is required. The interviewer then lists (in any order) the first names of all the household members of that gender who are at least 18 years old, even those not presently at home but who will return during that day. From the list, the interviewer randomly selects the person to be interviewed by asking a household member to choose a numbered card from a blind deck of cards.

The interview is conducted only with the selected person and no one else in that household. If an interview is refused, the interviewer substitutes the household by continuing the walk pattern and again selecting the *n*th dwelling on the right (where *n* = the day code). Note: in the Afrobarometer, we substitute households, not respondents. It is not acceptable, for example, for the interviewer to substitute a spouse, parent, child, sibling – or domestic worker or visitor – for a selected respondent who happens not to be at home at the time.

If, on the first try, the interviewer finds no one at home in the selected household, he/she makes one return call later in the day. Or, if the designated respondent is not at home, the interviewer makes an appointment to meet them later in the day. Again, a return call will be necessary in order to find the selected respondent and to conduct the interview. It is also acceptable for the interviewer to ascertain the whereabouts of the selected respondent (they may perhaps be at work) and, if nearby, to walk to that place to conduct the interview.

If the return call is unsuccessful, say because the respondent has still not come home for the appointment, then, and only then, the interviewer may substitute the household. If the house is still empty or the selected respondent is not at home at the time of the call-back, the interviewer is permitted to substitute that household with the very next household in the direction of the walk pattern. This slight change of procedure is necessary under these circumstances since the interviewer may already have had a successful call earlier in the day in the household that is located at the sampling interval.