

EFFECTS OF FAMILY SIZE AND PARENT'S SOCIO-ECONOMIC STATUS ON CHILD SCHOOL TYPE IN ZANGO KATAF LOCAL GOVERNMENT AREA, KADUNA STATE

^a Ayuba, D.* and ^b Daniel, B

^a Department of Basic and remedial Studies, Nuhu Bamalli Polytechnic, Zaria

^b Department of Geography Kaduna State College of Education Gidan Waya

*Corresponding author's Email: ayubadamina@gmail.com

ABSTRACT

The relationship between family size and child school type was investigated. A total of 450 heads of households was taken as a study sample from four chiefdoms that constitute the local Government Area thus; Atyap, Bajju, Ikulu and Angan from which one district was selected and in each district two settlements were selected at random. Multiple regression analysis was used to examine relationships within the data set. It was found that 43.0% had no formal education with different income levels. Also religion is positively related with large family size; both Christianity, 0156 and .0060 at p0.01 and low income were found to have positive correlation with large family size while family size 3-4 and ≥ 5 are related positively with all school type. In addition, larger families such as 3-4 and ≥ 5 , were found to had trained more children in schools than others. It is recommended that the quality of teaching in both public and private schools should be improved

Key words: Family Size, Children training and education, School type, Zango kataf,

INTRODUCTION

Policy makers in developing countries lay much emphasis on family planning programmes to reduce family size in order to reduce economic burden of overpopulation. The policy intervention is based on the idea that a resource-constrained household with smaller family size will have more resources for investments in human capital of their children. In economics, this notion has been modeled by Becker and Lewis (1973) and Ogunshola and Adewale (2012) which suggests that reduction in the number of children in a resource-constrained population will free up more resources to be invested on each child, leading to improve health status and educational attainment of children.

The National Population Commission (NPC, 1999) revealed that the number of children a couple would have is determined by so many factors including health, religion, culture, economic. Adjaero (1996) opined that the need to attain an optimum balance between family size and child education is an issue of concern to most families. Similarly, Population Reference Bureau (2001) and Ogunshola and Adewale (2012) found that shaping the family size to cater for child education coupled with the existence of other factors such as parent's income, educational levels and other related factors is a lingering problem that is almost a bane to child education.

The results on the effect of family size on child education are mixed; Black, Devereux and Salvanes (2005) found no impact of family size on children's educational attainment in Norway. Similarly, Omoegun (2007) found that no significant relationship exists between the number of children and educational attainment in US and Netherlands. Angrist, Lavy and Schlosser (2005)

and Angrist, Lavy, and Schlosser, (2006) also do not find any causal impact of family size on completed educational attainment and earnings in Israel.

The social and economic bond in a family tends to be great, particularly in the developing countries where the economic value of the child to the family is high. In fact, because of government inability to help families to prevent or ban child labour and make basic education compulsory, the economic potentials or contribution of the child to the family can be invaluable, particularly among low income earners. The centrality of the family as an agent of human growth and development cannot be overemphasized. Adjaero (1996) observed that education and socialization of children are the basic ways in which a society creates its future. The family therefore is more than just a collection of people with biological and social ties. Invariably, reported Oni (2007) if a couple has more children, the fixed resources of the family must be divided among the family members which may potentially result in poorer education outcome for children.

Similarly, Hill, Castelino, Lansford, Nowlin, Dodge, Bates and Pettit (2004) argued differently that the socio-economic status of parents do not only affect the academic performance, but also makes it possible for children from low background to compete well with their counterparts from high socio-economic background under the same academic environment. The centrality of the family in shaping the future of a child educationally is inevitable which has become necessary if not compelling to investigate. Earlier Berker (1973) posited that quality education tends to reflect the socio-economic status of the family. Hence, the better the education of the children, the better qualifications and better paid jobs they will secure.

The National Population Commission of Nigeria recommends (2005) four children per family, and went further to state that the family is the basic unit of the Nigerian society and that each child should be given the highest priority of well-being and the right to functional and quality education. This invariably suggests that the child has the right to be cared for, guided and supported by parents and the society. This is necessary because young people are the future leaders of the nation hence deserve the desired education for meaningful participation in national development. Consequently, large family size places pressure on families and households, which invariably is likely to impact negatively on the type of school chosen for children. This is because larger families with meager resources compared to small sized households may find it difficult to send their children to good schools with efficient resources for teaching and learning purposes

Previous studies, Berker (1973), Hill (2004) and Oni (2007) were much inclined to investigating the impact of family size on income, land, fresh water and child performance, with little or no attention on its impact on the school type attended by children, which is central to child education. Before now, there is little or no work done on the effect of family size and parent's socio-economic status on child school type in the study area. Therefore, the concern of this study is to examine possible impacts and their determinants of parent's socio-economic characteristics and family size on child school type in Zango Kataf local government area. The specific objectives are to: analyze the socio-economic and demographic characteristics of respondents, analyze the determinant of family size in Zango kataf L. G. A, identify school type attended by children and analyze the relationship between family size and children - school type.

STUDY AREA

Zango Kataf Local Government Area (LGA), the study area is located in the southern part of Kaduna State. It is situated between latitude $9^{\circ} 25'N$ and $10^{\circ} 20'N$ and between longitudes $7^{\circ} 45'E$ and $8^{\circ} 40'E$. It comprises four chiefdoms; Atyap, Bajju, Angan and Ikulu. At the moment, there is no data or literature on family size on Zango Kataf LGA but the National Population Commission (NPC,1999) through demographic survey, revealed that there are variations in family sizes between urban and rural areas in the state. The report noted that most family sizes for rural areas ranges from ≥ 5 compare to urban areas with ≤ 4 .

The study area is rural in socioeconomic attributes but has a few settlements that are urban centres (See figure 1). It has a 2013 projected population of 389534 based on 2006 head count. It has a long history of western education from colonialism to modern terms; this is evidence from the number schools (primary and post primary). According to the Kaduna state Statistical Year Book (2009) the study area has a total of 215 primary schools, 46 secondary schools and one tertiary institution with the exception of private schools. Farming is the major occupation.

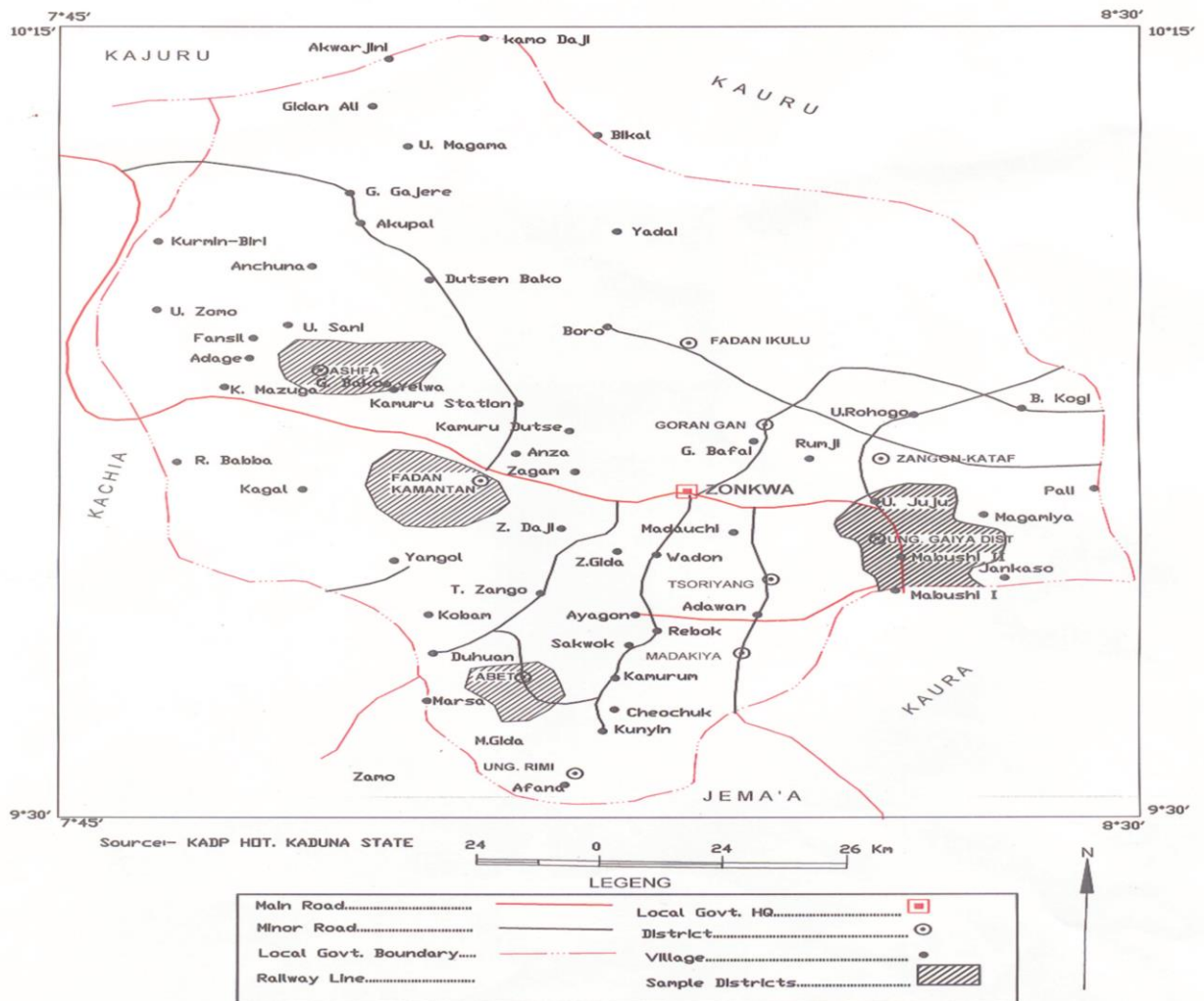


Fig. ZANGO KATAKAF LOCAL GOVT. AREA SHOWING SAMPLE DISTRICTS

MATERIALS AND METHODS

The study focuses on 450 married heads of households from a study population of 6550 (NPC, 2006) who were randomly sampled in the settlements within the study area. A structured questionnaire was designed to source information on the socio-economic and demographic characteristics of respondents, number of children in school and those trained based on family size, the type of school children attends, the number of children per family and couple intention to adopt the four child policy by trimming their family sizes. Using a systematic random sampling technique, four villages were selected after every two villages from a total of eight (See Table 1). The copies of questionnaire were administered using a face-to-face approach, which was considered more convenient to avoid missing questionnaires.

Multiple regression analysis was employed in data analysis while presentation of socioeconomic data was by tables, graphs and simple percentages. The regression model is express implicitly as: $Y = f(x_1 + x_2 \dots x_n)$(1)

The explicit form is thus:

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + b_6 x_6 + b_7 x_7 + e \dots \dots \dots (2)$$

Where:

a= The intercept

b₁, b₂, b₃= Are the regression coefficients

e= error term

Equation 1: Determinants of Children School Type

Y = Dependent variables (school type)

X= Independent variables (Socio- economic characteristics)

X₁= Age of parents

X₂= Sex

X₃=Marital factors

X₄= Educational status

X₅= Religion

X₆=Occupation

X₇=Income

Equation 2: Determinants of Children School Type

Y= Dependent Variables (School type)

X= Independent variables (Family Size): X₁= ≤2, X₂=3-4, X₃= ≥5

Table 1: Study Population and Sample Size

S/No	Chiefdom	District	Town/Village	Population Projected-2012	Sample size
1.	Atyap	U/Gaiya	Samaru Kataf	903	62
			Makarau	752	52
2.	Bajju	Abet	Abet Kufai	632	43
			Abet Kumi	842	58
3.	Ikulu	Ashafa	G/Bako	771	52
			U/Pah	1012	69
4.	Angan	F/Kamanton	F/ kamaton	1117	77
			Lenak	521	36
Total				6,550	450

Source: NPC, 2006 with slight modifications by the authors

RESULTS AND DISCUSSION

Socio-Demographic characteristics

Table 2 displays results on the socio-demographic characteristics of respondents; by sex, males constituted 61% compare to females 39%. This shows that males constituted more than half the respondents. Age at birth revealed that age bracket 15 -25%, age 26-35 years 19.3%, age 36-45 years 46.6% while age range 46 years and above made up 25.4%; the most dominant age group is within age range 35-45years. Representation by creed revealed that those that professed Christianity made up 65.1%, Islam 27.4% while other faiths had only 7.5%. It goes to suggest that Christianity is the dominant religion in the area followed by Islam.

Respondents by educational status; those with no formal education had 43%, school certificate / secondary school, 28.9% while those with tertiary education, 28.1%. It is obvious from the results that slightly less than half the study population had no formal education which most likely could impact on child education in the study area, which is consistent with the opinion of Berker (1973) that child- quality education tends to reflect the socio-economic status of the family .

Table 2. The Socio- Demographic Characteristics of Respondents

Socio-demographic Characteristics	Respondents	Percentage
Sex:		
Male	267	60.9
Female	171	39.0
Total	438	100
Age:		
15-25	37	8.7
26-35	83	19.3
36-45 Years	110	25.4
≤46Years	201	46.6
Total	431	100
Religion:		
Christianity	261	65.1
Islam	110	27.4
Tradition	30	7.5
Total	401	100
Educational status:		
No formal education	174	43.0
Sch. Cert./Sec.Sch.	118	28.9
Tertiary	115	28.1
Total	407	100
Income per annum (₦ 000):		
≤500	149	34.1
501-100	140	32.0
≥101	148	33.8
Total	437	100
Occupation:		
Farmer	220	55.0
Petty Trader	59	15.0
Paid Worker	76	19.0
Others	48	11.0
Total	403	100

Source: Authors; survey

On income, results revealed percentile variations among respondents thus; 34.1% for ≤₦500,000, 32% for ₦501-100,000 while ₦ 101, 000 made up 33.8%. The implication is that more than one third of the respondents were of the low income earners, which corroborated earlier work like Hill (2004) that it has profound negative impact on child education. Respondents by occupation shows that 55%, 15%, 19% and 11% for farmer, petty trader, paid

worker and others respectively; this points to the fact that the study area is a rural setting given the nature of occupation .

Determinants of type of school attended by children

The relationship between the socio-economic characteristics and family size was analyzed to reveal determinants through multiple regression. According to results in table 3, age range 15-25 related positively with private school, *.0175 at p0.01*, age 26-35 years significantly related with private school (*.0421 at p0.05*), age range 36-45 years also related positively with public school, *.0276 at p0.05* while age range 46 years and above also maintained a positive relationship with public school.

Table 3. Socio-Economic and Demographic Determinants of Child-School Type

Socio-economic Determinants	Private School		Public School	
	Coefficient	Sig. Level	Coefficient	Sig. Level
Age:				
15-25Years	.6064	.0175**	.9432	.1457
26-35 Years	-.1701	.3137	.3812	.0421*
36-45Years	.7552	.0912	.6453	.0276*
≥46years	.5741	.0471	.8321	.0378
Religion:				
Christianity	.9225	.0156**	.8864	.0060**
Islam	.7431	.0571*	.3216	.0196**
Tradition	.1215	.0714	.4221	.0312
Educational status:				
NoFormal Education	.9981	.0016**	.5421	.0178**
Sch. Cert./Sec.Sch.	.1052	.2670	.3101	.3563
Tertiary	.6420	.0421*	.4523	.0912
Income per annum				
≤N 50:000,00	.4761	.0754	.5611	.0101**
N 51-100.000.00	.1267	.9234	.9201	.0662
≥N101,000.00	.5532	.5612	.4312	.2134
Occupation:				
Farmer	.1023	.1636	.1643	.0421*
Petty Trader	.2033	.4012	.5764	.0261*
Paid Worker	.0432	.6041	-.4321	.0512
Others	.1134	.2431	.5013	.0354*
Marital Factors:				
Couple	.7312	.0424*	.0601	.0360*
Wife	.6451	.0912	.7712	.0523
Husband	.0654	.4360	.0142	.0261
Relations	.6612	.2341	.0342	.0411
Others	.8123	.0860	.0814	.0472

*significant, **very significant at p0.01, 0.0

Source: Authors' survey

This suggests that the older age groups identified more with public school as both related positively. In addition, religion was found significantly related with child school type (type of

school attended by children (.0378 at $p0.05$); christianity.0156 and .0060 at $p0.01$ for private and public school accordingly. It is no surprise the positive relationship of religion with both schools as most public schools in the study area were previously owned by the missionaries. The positive relationship also reflects the fact that Christian's missionaries also own most private schools in the area.

Similarly, Islam maintains a positive relationship with both school types attended by children at $p0.05$ and 0.01 in that order. In the same vein while traditional religion revealed no positive relationship Educational status was found to relate significantly with child school type; Parents with no formal education had significant relationships with both school type; .0016 and .0178 at $p0.01$ accordingly, while parents with post primary education related significantly with private school; .0421 at $p0.05$. This is inconsistent with the work of Angrist *et al* (2005) who found no significant relationship between educational attainment and child education. It means that parents of varied educational status in the study area have value for education, hence the positive relationship

Income was also found to relate significantly with public school; .0101 for those with income range $\leq 500,000$ Naira at $p0.01$. While income range $\text{N}501,000$ and $\text{N}100000,00$ revealed no positive relationship. As expected, the results indicate that low-income earners identified most with public schools probably because of low school fees, which is consistent with the work of Oni (2007) that parent's socio-economic characteristics especially income have significant effects on child education.

Parents' occupation had a positive relationship with Child- school type thus; farmer .0421, petty trader .0261, paid worker .0512 and others .0354 at $p0.05$. Parent's occupation is central to the economic status of a family, which invariably has direct bearings on child school type. In the same vein, marital factors also revealed positive relationship with child -school type, those in marital union related positively with both school types;.0424 and .0360 at $p0.05$ in that order while other marital factors such as wife, husband, relations and others had no positive relationship with school type attended by children. It suggests too that parents in the study area patronize both private and public schools for their children.

Family Size and Child - School Type

Table 4 presents results on the relationship between school type and family size. Family size ≤ 2 is significantly related with private school; .0145 at $p0.01$, family size 3 to 4 relate significantly with both private and public schools; .0013 and .0204 at $p0.01$ and 0.05 accordingly, while family size ≥ 5 related positively with all forms of schools; .0365, and .0107 for private, public accordingly at $p0.05$ and 0.01 . It is obvious from the results that larger families patronize all forms of schools in the study area compare to others, given that parents are a mixed population and resultantly differ in economic status, which may permit parents' patronage of both school types. This finding is in agreement with earlier work like Black, Devereux and Salvanes (2005) who found no impact of family size on children's educational attainment, which is also in contrast with the opinion of Population Reference Bureau (2001) and Ogunshola and Adewale (2012) that the family size is a bane to child education.

Table 4. Relationship Between Family Size and Child- School Type

Family Size	Child School Type			
	Private Coefficient	Significant Level	Public Coefficient	Significant Level
≤2	.2341	.0145**	-.4732	.6221
3-4	.4965	.0013**	.5631	.0204*
≥5	.0267	.0365*	.4751	.0107**

Significant at p≤0.05 and 0.01

Source: Authors; survey

Family Size and Number of Children in School

Results in table 5 reveals number of children in tertiary institutions from family size ≤ 2, 3 to 4 and ≥5 thus; 2.2%, 2.8% and 2.3% respectively while those attending secondary school in the three family segments constituted; 3.5%, 8.4% and 6.8% in the order of family size arrangement respectively. Similarly, children in primary school by family size had a representation thus; 9.5%, 21.6% and 43.9% in the order of arrangement in the table. Generally, results suggest that larger families had more children in all school types, which is in disagreement with the work of Ogunshola and Adewale (2012) that large family size is a bane to child education. It could be also interpreted to mean family size is not necessarily a constraint to child education but a function of other things.

Table 5: Family Size and Number of Children in School

School	Family size					
	≤2		3-4		≥5	
Tertiary	5	2.2	12	2.8	10	2.3
Secondary	15	(3.5)	36	(8.4)	29	6.8
Primary	40	(9.5)	92	(21.6)	187	43.9
Total	60	(14.1)	140	(32.8)	226	53.0

Source: Authors; survey

Family Size and Number of Children that Completed Tertiary Education

Table 6 displays results on family size and number of children with tertiary education. Results revealed that family size ≤2 had trained children in tertiary education thus; 5.0%, 6.7% and 1.9% for family size ≤2, 3 to 4 and ≥5 children respectively.

Table 6: Distribution of Family size and Number of Children that Completed Tertiary Education

Family Size	No. of Children trained					
	0-2		3-4		≥5	
	N	%	N	%	N	%
≤2	20	(5.0)	27	(6.7)	8	(1.9)
3-4	60	(14.8)	29	(7.2)	46	(11.2)
≥5	66	(16.3)	98	(24.2)	51	(12.5)
Total	151	(36.1)	154	(38.3)	105	(25.6)

Source: Authors; survey

While family size 3 to 4 had a representation as follows; 14.8%, 7.2 and 11.2% with children that had completed tertiary education in that order. Family size ≥ 5 had the highest representation in the 3 segments; 16.3%, 24.2% and 12.5 in that order. Results simply confirm our earlier findings that larger families were on the lead in championing child education in the study area, as more children from larger families of five and above had completed one form of tertiary education or the other.

RECOMMENDATION AND CONCLUSION

It is certain from the results that parent's socio-economic status is relevant in determining children school type, this was noted in the positive relationship revealed by age, marital factors, religion, educational status, income and occupation. Larger families favoured both private and public schools, had more children in school and more children that completed tertiary education. In addition, smaller families favoured private schools

Based on above, the sole recommendation is that the quality of teaching in both public and private schools should be overhauled to improve the human development index and capacity building for the society. Although family size may not directly determine the type of schools attended further research on how it affects educational success and performance of children will provide insights into demographic aspect of development and educational attainment.

REFERENCES

- Angrist, J. D., Lavy, V., and Schlosser, A. (2005). New Evidence on the Causal link between the Quantity and Quality of Children. NBER Working Papers 11835, National Bureau of Economic Research, Inc. Available at <http://ideas.repec.org/p/nbr/nberwo/11835.html>
- Angrist, J. D., Lavy, V., and Schlosser, A. (2006). Multiple experiments for the causal link between the Quantity and Quality of Children. Tech. rep., Massachusetts Institute of Technology Department of Economics Working Paper Series.
- Adjaero, N.M (1996). *The structure of the family: A Social Institution*. Onitsha, Nigeria: Spiritan Publication.
- Black, S. E., Devereux, P. J., and Salvanes, K. G. (2005). The More the Merrier? The Effect of Family Size and Birth Order on Children's Education. *The Quarterly Journal of Economics* 120(2): 69–700. Available at <http://ideas.repec.org/a/tpr/qjecon/v120y2005i2p669-700.html>.
- Becker, G. S. and Lewis, H. G. (1973) "On the Interaction between the Quantity and Quality of Children." *Journal of Political Economy* 81(2): pp. S279–88. Available at <http://ideas.repec.org/a/ucp/jpolec/v81y1973i2ps279-88.html>.
- Demographic Survey and Child Schooling (1991-1999). www.ncae.org.

- Guerin, N.; Reinberg A; Testu, F.; Boulanguiez, S.; Mechkouri, M. and Touitou, Y. (2001). Role of School schedule, age and parental socio-economic status on sleep duration and sleepiness of Parisian children. *Chronobio. Int.* 2001; 18(6): 1005-17.
- Hill, N.E; Castelino, O.R.; Lansford. J.E.; Nowlin, E.; Dodge, P.; Bates, K.A. and Pettit, G.S (2004). Parents academic involvement as related to school behaviour, achievement and aspirations: Demographic variations across adolescence. *Child development (2004)* Vol. 75. No.5. pp.1491-1509.
- National Population Commission (NPC, 2005). *National Population Policy of Nigeria*. New Edition
- National Population Commission (NPC, 1999). Demographic Survey, 1991-1999.
- Oni, A.A (2007). Socio – economic status as predictor of deviant behaviours among Nigeria Secondary School Students. *International Journal of Educational Research*. 3(2): 225
- Ogunshola, F. and Adewale, A.M. (2012). The Effects of Parental Socio-Economic Status on Academic Performance of Students in Selected Schools in Edu LGA of Kwara State *International Journal of Academic Research in Business and Social Sciences*, 2(7)
- Omoegun, M. (2007). Effect of parental socio-economic status on parental care and social adjustment in the UBE programme in Lagos State: Implication for counseling *International Journal of Educational Research*. Vol. 3(2) 2007 pp.81 – 87
- Population Reference Bureau (2004). Fundamental of Human Population. Accessed on 12/02/12 from popref@prb.org/www.prb.org