THE CONTRIBUTIONS OF AFFIRMATIVE STRATEGIES TO
WIDENING ACCESS TO UNIVERSITIES FOR STUDENTS FROM
KENYA’S ASAL REGIONS

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E83/10565/2007

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FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN THE
SCHOOL OF EDUCATION OF KENYATTA UNIVERSITY

MAY, 2013
DECLARATION
This thesis is my original work and has not been presented for a degree in any other university.

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DEDICATION

To my late parents Peterson Obonyo and Paskalia Kwamboka who nurtured me to be patient and to all disadvantaged groups in all parts of Kenya. I also dedicate it to the Glory of the Almighty who has sustained all of us. May this study motivate the current and future generations to appreciate diversity. Last, but not least, to the young people in the Arid Regions of Kenya.
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<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>AA</td>
<td>Affirmative Action</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<tr>
<td>ADEA</td>
<td>Association for Development of Education in Africa</td>
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<tr>
<td>AHEAD</td>
<td>Association for the Advancement of Higher Education and Development</td>
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<tr>
<td>ASAL</td>
<td>Arid and Semi-Arid Land</td>
</tr>
<tr>
<td>CDF</td>
<td>Constituency Development Fund</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>CHE</td>
<td>Commission for Higher Education</td>
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<tr>
<td>COP</td>
<td>Cut-off Point</td>
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<tr>
<td>CRA</td>
<td>Commission for Revenue Allocation</td>
</tr>
<tr>
<td>CSHE</td>
<td>Centre for the Study of Higher Education</td>
</tr>
<tr>
<td>DEEWR</td>
<td>Department of Education, Employment and Workplace Relations</td>
</tr>
<tr>
<td>DfES</td>
<td>Department for Education and Skills</td>
</tr>
<tr>
<td>DoE</td>
<td>Department of Education</td>
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<td>EMIS</td>
<td>Education Management Information Systems</td>
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<td>FPE</td>
<td>Free Primary Education</td>
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<td>FDSE</td>
<td>Free Day Secondary Education</td>
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<td>FGD</td>
<td>Focus Group Discussions</td>
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<tr>
<td>GER</td>
<td>Gross Enrolment Ratio</td>
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<tr>
<td>GoK</td>
<td>Government of Kenya</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<td>-----------</td>
<td>-----------------------------------------------</td>
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<tr>
<td>GPI</td>
<td>Gender Parity Index</td>
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<td>GPR</td>
<td>Gross Participation Rate</td>
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<tr>
<td>HE</td>
<td>Higher Education</td>
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<tr>
<td>HEFC</td>
<td>Higher Education Funding Council</td>
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<tr>
<td>HEFCE</td>
<td>Higher Education Funding Council for England</td>
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<tr>
<td>HELB</td>
<td>Higher Education Loans Board</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<tr>
<td>IPSE</td>
<td>Institute for Policy Studies in Education</td>
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<tr>
<td>JAB</td>
<td>Joint Admissions Board</td>
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<tr>
<td>KCSE</td>
<td>Kenya Certificate of Secondary Education</td>
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<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
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<td>KNEC</td>
<td>Kenya National Examinations Council</td>
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<tr>
<td>LATF</td>
<td>Local Authority Transfer Fund</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MoE</td>
<td>Ministry of Education</td>
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<tr>
<td>MoHEST</td>
<td>Ministry of Higher Education, Science and Technology</td>
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<tr>
<td>MSDNKOAL</td>
<td>Ministry of State for Development of Northern Kenya and Other Arid Lands</td>
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<tr>
<td>MU</td>
<td>Moi University</td>
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<tr>
<td>NCHE</td>
<td>National Commission for Higher Education</td>
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<tr>
<td>NCST</td>
<td>National Council of Science and Technology</td>
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<tr>
<td>NEP</td>
<td>North Eastern Province</td>
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<td>NER</td>
<td>Net Enrolment Rates</td>
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<td>NSFAS</td>
<td>National Student Financial Aid Scheme</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>NFD</td>
<td>Northern Frontier District</td>
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<tr>
<td>NPHE</td>
<td>National Plan for Higher Education</td>
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<tr>
<td>PCR</td>
<td>Primary Completion Rate</td>
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<tr>
<td>PUIB</td>
<td>Public University Inspection Board</td>
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<tr>
<td>PWDs</td>
<td>People with Disabilities</td>
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<tr>
<td>SES</td>
<td>Socio-Economic Status</td>
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<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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<tr>
<td>SSA</td>
<td>Sub-Saharan Africa</td>
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<tr>
<td>TEFSA</td>
<td>Tertiary Education Fund of South Africa</td>
</tr>
<tr>
<td>TIVET</td>
<td>Technical, Industrial, Vocational and Entrepreneurship Training</td>
</tr>
<tr>
<td>UDSM</td>
<td>University of Dar es Salaam</td>
</tr>
<tr>
<td>UPE</td>
<td>Universal Primary Education</td>
</tr>
<tr>
<td>UoN</td>
<td>University of Nairobi</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational Scientific and Cultural Organization</td>
</tr>
<tr>
<td>USIU</td>
<td>United States International University</td>
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This study explored the contributions of affirmative action as an institutional intervention to widen access for students from Arid and Semi-Arid Lands (ASAL) regions to universities in Kenya. The study also investigated interventions that can widen access and participation of students from ASAL regions. Currently, at the international level, the acknowledgement of higher education as critical to the development of societies has encouraged countries to design policies that widen access and participation of students from all social groups in higher education. While these policies have been achieved in the context of developed countries, the opposite is true in developing countries. In Sub-Saharan Africa, for example, demand for higher education has not been met, with enrolments in higher education averaging 5% of the eligible cohort. In Kenya, AA has been used as an institutional intervention to increase the enrolment of students from ASAL regions to public universities. This study was designed to explore the contributions of affirmative action as a strategy of widening participation of students from these regions to universities. The study design employed a descriptive cross-section survey research design; exploratory in orientation. Both qualitative and quantitative data were generated to address the study objectives. Convenience and stratified techniques were used to sample students. Out of a target of 550 undergraduate students at the three universities from ASAL regions based in the 8 arid districts of Kenya, convenience sampling was used to select 150 (27%) students of which 131 (24%) responded. Based on the respondents from the convenience sample, a stratified sample was selected for three FGDs comprising 6-10 (12-20%) members at each of the selected universities. Purposive sampling was used to select one private and two public universities, university administrators, heads of agencies (HELB and CHE), staff in charge of student welfare issues, lecturers from ASAL regions and policy-makers/practitioners. Methods used to collect data were: self-administered questionnaires, open-ended interviews, documentary analysis and focus group discussions. Self-administered questionnaires were given to students while open-ended interviews were administered to university administrators, lecturers from ASAL regions, heads of agencies and policy-makers/practitioners. Documentary analysis was done on KCSE results and university student admission records. Focus group discussions were conducted to obtain in-depth data from selected students at the selected universities. Simple descriptive analysis was used to analyse and report data. Reporting of qualitative data was in verbatim while quantitative data was presented using basic descriptive statistics in tabular form. The research findings indicate that a range of between 0.2% and 0.8% students from ASAL regions at the universities benefited from the AA. The study established that the admission trends through AA were below the set ceiling of 10%. To increase access to universities, the study recommended the need to lower the existing affirmative cut-off point for university admission, provide financial assistance on affirmative basis and provision of adequate facilities at basic education level.
CHAPTER ONE: INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

The introduction highlights how the worldwide demand for higher education has led to the adoption of the concept and practice of widening access as a strategy to have institutions admit students from all social groups. In the Kenyan setting, a case is argued for the need to explore the contributions of affirmative policies as a strategy to widen access and participation of students from ASAL communities to universities in Kenya. Sequentially, this Chapter presents background to the study, statement of the problem, purpose of the study, research objectives and research questions. Other sections of the Chapter are: significance of the study, its delimitation and limitation; its assumptions; theoretical and conceptual framework; and operational definition of key terms.

1.1 Background to the Study

Several studies tracking the increasing expansion of higher education systems worldwide have underscored the fact that while there has been tremendous growth in enrolments, such growth has benefited social groups that have always had an edge in access and participation rates (Altbach, Reisberg and Rumbley, 2009). While countries like North America and Western Europe record a participation rate of 70%, the highest in the world, Sub-Saharan Africa (SSA) registers 5%, the lowest in the world (UNESCO, 2011; Pityana, 2009). Despite greater inclusion,
the privileged classes have retained their relative advantage in nearly all nations leading to inequalities in access and participation in higher education. For example, in the UK, young people from the highest social groupings are reported to have about 50-60% more chances to attend university than those from the most disadvantaged backgrounds (HEFCE, 2006). Such inequalities tend to negate one of the roles of higher education which is to promote access and participation to the disadvantaged besides teaching, research and community service (Thomson, 2008). The participation of the disadvantaged groups tends to be below national average due to barriers of access, retention and success which starts from the formative years of formal schooling.

Universities in developed countries like USA, UK and Australia, use admission policies to recruit students from all social groups through a criterion that does not privilege one group over others. This applies to both public and private universities such that the percentage of students from populations considered disadvantaged admitted to the institutions is used as a benchmark for the amount of subsidy that the institutions receive from public funds such as the cases of Higher Education Funding Council of England (HEFCE) and South Africa (Scott, 2009). The idea of widening access implies that deliberate strategies are adopted by institutions to ensure that as enrolments expand, the social origin of students is equitably spread across all socio-economic classes. The admission policies used are based both on merit and affirmative action in an attempt towards blending
ethnicities, cultures, races, religions and genders. Specific affirmative interventions that have been widely used include pre-entry examinations, lower cut-off points, financing and compensatory pedagogical approaches. Widening access is preferred to increasing access since the former broadly aims at positive reduction of barriers that are mainly experienced by students from underprivileged backgrounds while the latter focuses on numbers admitted (James, 2007).

Consequently, the focus has shifted from equity in educational resources to equitable educational outcome (World Bank, 2009, p.9). The goal of focusing on outcome is meant to achieve more parity between the compositions of university and national populations. This is in line with one of the more widespread conceptions of equity in establishing aspirational targets (Gale T., Tranter, D., Bills, D., Hattam, R. and Comber, B., 2010). In developing countries, equity in higher education confers significant individual benefits in terms of human resource development, social status, career possibilities and lifetime earnings. While individual social justice has been the major imperative behind many equity initiatives, there has long been an argument, especially in the USA, that improving the higher education participation of people from disadvantaged groups is essential for the long-term socio-economic integration of these groups (James, 2007). In addition, it also encompasses the kind of labour opportunities offered by the programme pursued to aid in human resource development.
In a policy declaration drafted by a task force of the International Association of Universities (IAU) on equity, emphasis was on three issues:

a) How access to higher education should be made possible for all regardless of race, ethnicity, gender, economic or social class, age, language, religion, location or [dis]abilities.

b) The goal of access policies should be full participation in higher education, as access without a reasonable chance of success is an empty promise.

c) Equitable access and academic excellence are essential and compatible aspects of quality higher education (IAU, 2008, p.16).

It is in this context that widening access and participation for the disadvantaged to higher education through affirmative policies could be said to enhance inclusion and social justice without compromising standards in higher education. The issues confronting countries designing affirmative action policies in this regard are:

a) Why affirmative action;

b) Who should benefit;

c) How should these benefits be allocated; and

d) When should the allocation of benefits end (Dupper, 2008, p.22)?

Globally, affirmative action has been adopted by countries and educational institutions to widen access and participation of disadvantaged groups to higher
education (Gale et al., 2010). The justification for affirmative policies is on the basis that it can be a tool which can both increase diversity and allocation of resources to the relatively disadvantaged communities (Bertrand, Hanna and Mullainathan, 2009). It is also, and more importantly, a means of leveraging social capital across social groups because it is assumed that the increasing numbers of individuals from lower social groups who access and complete higher education, especially in professional courses, occasion multiplier effects in the communities they come from.

Some of the affirmative policies include admission criteria which allow for bridging courses, lower cut-off points, financial aid, mentoring and curriculum reviews for effective delivery of pedagogy. However, there are existing challenges that have impeded the effectiveness of these policies among the disadvantaged. These impediments include ineffective implementation of the policies like insufficient funding, failure to identify effective pedagogical approaches and lack of motivation (Yagan, 2011). Due to these challenges, periodic reviews are done to determine the effectiveness of affirmative policies so as to ensure the disadvantaged students do not only gain access but survive through till successful completion.

In Australia, for example, the Department of Employment, Education and Training (DEET) was tasked with equity policies in education in recognition of
the fact that inequality in higher education had been a persistent problem (Gale, et al., 2010). In a period of more than twenty years, the idea of inequality was expanded to include the education of girls, Aboriginal students, students with disabilities, and students from non-English speaking backgrounds. In implementing these policies, the logic of local school interventions shifted from compensatory programmes for the disadvantaged students to significant curriculum and pedagogical reforms. Analysis done from some universities suggested that a significant value adding effect for students admitted from disadvantaged backgrounds, often with low university entrance scores, tended to perform well when they gained admittance (Gale et al., 2010). Consequently, universities in developed countries have adopted AA to redress societal inequity by implementing policies such as access, financial aid, academic interventions so as to enhance educational benefits to all without discrimination (Edwards, 1995).

1.1.1 Disadvantaged Group’s Access to Universities in Sub-Saharan Africa

In Sub-Saharan Africa (SSA), studies show that social composition of enrolments at universities became a reflection of the colonial heritage which developed as an elitist institution. This meant that over time the educational ladder compressed as one moved upwards (Morley et al., 2006). The picture that came to characterise education in the last four decades since most countries attained independence was one of increased mass primary school education, poorly funded by the government, a slowly expanding secondary education and a small elitist higher
education which was highly subsidized by the state. This scenario produced a higher education system that left out large populations like women, ethnic minorities, rural and urban slum residents, persons with disabilities and communities inhabiting ASAL regions that had been left behind or marginalized in terms of educational provision when Western education spread in most of SSA. These groups are considered disadvantaged because they face challenges such as poverty, socio-cultural barriers, low participation and retention rates in schooling, under-investment in higher education among other things (Kwesiga, 2002). It is envisaged that affirmative action policies can widen access by going beyond the provision of access and convert this to success for the benefit of both the disadvantaged and the elite. Indeed, the use of AA in Kenya compared to the rest of the developing countries indicates that these policies have been mainly used to improve the under-representation of female students more than other disadvantaged groups (JAB, 2010; MoE, 2008).

In SSA, participation in higher education is still low averaging about 5% of the eligible cohorts with that of women and other disadvantaged groups even lower (World Bank, 2009, p.12). Access to higher education is often dependent on socio-economic status, where enrolment at universities and other higher educational institutions is dominated by students from the highest income quintiles. Often, public funding mechanisms act to exacerbate such inequities by providing free higher education to students whose academic performance is
higher, and who invariably come from the higher socio-economic status backgrounds. In Kenya, for example, the underlying cause of unequal access to education is due to political and economic power of ruling ethnic group who use state resources for the benefit of their own ethnic communities (Alwy and Schech, 2004). In this regard, due to lack of political power and inadequate economic resources, students from ASAL regions undergo low quality education at primary and secondary school level which further constrains chances of transition to higher education and training. In this context, access and equity for the disadvantaged students to higher education call for interventions that can cater for inadequate quality of basic education (O’hara, 2010). It is in this light that some countries in SSA have identified affirmative policy driven plans at institutional level to enhance equity and access in higher education. The framework is geared towards introducing relevant undergraduate programmes and helping disadvantaged groups join the more relevant professional educational courses among other concerns (World Bank, 2009).

The affirmative strategies in SSA university education have taken forms such as remedial courses, quota systems, funding (scholarships, bursaries) and lower admission cut-off points. Remedial courses are offered by an institution (at the University of Dar es Salaam, Tanzania) to a student who fails to meet requirements in a given course particularly professional courses in Science, Mathematics and Technology (SMT). Upon passing the bridging course, the
student qualifies to be admitted to the course that one chose but did not initially get direct admission. Lower admission cut-off points is where a number of points are lowered by a certain margin so as to admit a student who met the minimum university entry but did not qualify on cut-off point set by the university in a given year (mainly practised in Kenya, Uganda, Tanzania). Quota system is where a fixed percentage of places are given to minority students (Uganda and Ghana) to get admission at university to ensure diversity (Kwesiga and Ahikire, 2006; Bunyi, 2003). Funding in form of loans and scholarships is affirmatively given to the disadvantaged students (South Africa) using ‘means testing’ to those from the lower socio-economic backgrounds (Kapur and Crowley, 2008).

In most SSA countries, the disadvantaged groups that have mainly benefited from the various forms of affirmative strategies at university level are female students (Bunyi, 2003, p.4). For example, in Tanzania, affirmative policy has been used to widen access of female students to science and technical courses by using bridging courses, lowering cut-off points and funding the students. The funding aspect is used to assist the female students to complete the courses enrolled in. The implementation of affirmative policy has registered mixed results. For instance, in Tanzania the lowering of cut-off points at the University of Dar es Salaam (UDSM) saw the enrolment of females increase from 20.4% in 1998 to 33.1% in 2005 (Kapinga, 2010, p.275; Luhanga and Mashalla, 2005, pp.18-19). In Uganda, affirmative action has been done at institutional level by focusing on
lowering admission points for female undergraduates at Makerere University. The implementation was done using blanket approach which assumed that female students were a homogenous group. Consequently, when the affirmative policy was implemented, most of the beneficiaries were female students from the high socio-economic status and yet no remedy was taken to reverse the inequity (Kwesiga, 2006).

Other countries like Ghana have used quotas targeting mature students, the disabled, the poor and female students to widen access and participation. The government policy regarding admissions aims at a 50-50 enrolment for female and male. Indeed, the Joint Admissions Board at University of Cape Coast targets the percentage of female enrolment not to fall below 35% of total enrolment (Morley L., Leach, F., Lugg, R., Lihamba, A., Opare, J., Bhalulusesa, Forde, L. D., Egbenya, G. and Mwaipopo, R., 2007). Ghana had also used affirmative policy to increase access but did not broaden the social bases of classes from where students were recruited. Indeed, projection done after implementation of the policy indicated that over 70% of doctors, scientists, engineers, architects and other professionals were to be produced from 10% of the population (Addae-Mensah, 2002, p.14). In Mozambique a similar conclusion was made (Mario M.; Peter, F., Lisbeth, L. and Arildo, C., 2003).
In South Africa, to enhance equity and access, the government established a national loan scheme as a form of affirmative policy targeting majority of the disadvantaged students joining higher education. The loans were disbursed using a ‘means testing’ for purposes of equity. The outcomes of this intervention revealed that most of the disadvantaged at national level were not reached due to unpredictability of policy. At institutional level, specific strategies to assist the disadvantaged students were yet to be instituted (Griesel, 1999). In Zimbabwe, affirmative policy on the award of loans based on ‘means testing’ to enhance equity did not achieve much due to lack of enforcement mechanisms. The processing of loans faced loopholes, such that unintended beneficiaries managed to access the funds (Kariwo, 2007). Emerging from a Pan African context is the fact that affirmative policies have not been effectively used to improve the chances of less privileged groups to access universities and join professional courses.

One of the challenges that face institutions when designing affirmative policies to increase access is that students from such groups under perform in basic education, which is a prelude to joining higher education institutions. Hence, while it is critical to institute interventions at university level it is even more congenial to focus on basic education which is the foundation to higher education. The implementation of these policies has faced challenges like lack of access paths, inadequate financing, poor implementation and favouritism in terms of who
benefits (Kwesiga and Ahikire, 2006). Due to these challenges, a number of students admitted fail to complete their programmes on time leading to low output. Similarly, entry to professional degree programmes is becoming an exclusive domain of a few well-resourced from both primary and secondary schools.

One group of disadvantaged students who are rarely mentioned in the literature regarding access to higher education in SSA are those from pastoralist (ASAL) communities in Nigeria and Kenya. Providing education to these communities is one of the challenging issues that education policy-makers, practitioners and other stakeholders within the field have faced over time. These challenges are however historical and are rooted in the development approaches that were adopted by the colonial governments and which became entrenched even in the post-colonial period. Right from the colonial period, government policy concentrated on providing services and other economic activities in a manner that facilitated the assimilation of sedentary communities and advanced the colonial interests in the areas of plantation agriculture and mining (Hodgson, 2001). In this process, colonialism brought new economic and political structures that required the natives to provide labour in settler farms for purposes of taxation thereby privileging sedentary agricultural practices over herders and hunter-gatherers. These structures gave rise to an ideology that emphasized sedentarization as a perquisite to the economic and social development of pastoralist communities.
(Kratli, 2001). Hence, when occasionally there was any policy response to pastoral communities, the aims of such policies were to transform pastoral enclaves to sedentary agricultural production, attempts that often failed (Dyson-Hudson, 1991).

The cumulative impact of the colonial and post-colonial approaches to educational provision for ASAL communities was that such communities were then not served by adequate educational infrastructures both in terms of quality and quantity. At a time that there was increasing global focus on higher education as critical to socio-economic development; these communities’ participation in basic education was below the national averages in most countries. Yet, attaining the two education Millennium Development Goals (MDGs): universal primary education (UPE) and eliminating gender disparities in primary and secondary schools by 2015 were dependent on targeting and reaching ASAL groups who were unable to access educational opportunities at all levels. Failure to achieve UPE and gender parity in ASAL regions would impact negatively on the realization of Kenya’s Vision 2030 which envisages reduction in regional social inequalities especially in education and employment (Republic of Kenya, 2009).
1.1.2 Affirmative Strategies and Access Trends to Universities of Students from ASAL Regions in Kenya

Arid and semi-arid (ASAL) regions of Kenya are occupied by pastoralist communities covering approximately 80% of the country and estimated to be home for 12 million people. According to various poverty profiles compiled by the Kenya Government, these areas experience the highest levels of poverty at 65% (Republic of Kenya, 2010). For example, Turkana, an arid district, had poverty rate of 94.3% while an economically developed district, Kiambu, had a poverty prevalence rate of 27.2%, by 2010 (Commission for Revenue Allocation, 2011). Consequently, the ASAL regions have the lowest socio-economic indicators of development including education. A common denominator of all these regions is their aridity, or proximity to arid lands. These regions are characterised by scarcity of pasture and water, which causes bloody clashes during dry seasons (Republic of Kenya 2009, a; Arero, 2005).

The persistence of conflict on resources like pasture and water is one of the major drawbacks to development in ASAL regions in Kenya. Such conflicts over resources affect the participation of ASAL people in education. Consequently, the communities under-achieve in basic education on all indicators, and the number of students from these communities accessing higher education is far too low compared to other regions (Republic of Kenya, 2004; JAB, 2005). Poor educational attainment has trapped successive generations in a livelihood system
that is already over-stretched in trying to cater for increased population numbers (Adan and Pkalya, 2005). For example, preliminary studies to assess the impact of Free Primary Education (FPE) have revealed that in Northern Kenya, the literacy rate is estimated at 8.5% compared to districts in Central Kenya whose literacy rate is well above 90% (Generation for Change and Growth, n.d. p.4).

The low levels of development of ASAL regions in Kenya like other parts of Africa can be traced to colonial and post-colonial development administrative policies (Dadacha, 2009). During the colonial period, government divided the country into the White Highlands and Northern Frontier District (NFD). Two processes influenced and defined the trend of this disadvantage in educational provision. First, there were general aims of the colonial administration to impose order for easy administrative control. Second, were descriptions provided by missionaries and travellers before the period of colonial rule (Hodgson, 2001). The stories shaped the practices of the colonial administration in terms of political control and social service provision, such as education. On the side of ASAL groups, an attitude of resistance towards Western formal education developed over time because of the fear that the education would have a Christian influence on their children. In addition, there was the inappropriate agricultural curriculum offered in schools that pastoralists like the Maasai disliked (Gorham, 1980).
From the post-colonial period, these feelings and attitudes from both the government and the ASAL communities have persisted. Various government policy documents for instance state how difficult it was to provide education to children from nomadic background because of the seasonal movement of their families (Republic of Kenya, 2004). Where government has been lax in providing educational infrastructure, the Catholic Church has mainly made efforts to establish critical integrated centres that offer healthcare, food and education to ASAL community groups especially in Marsabit and Turkana. These non-governmental efforts have been laudable, but they have not been linked, and perhaps visualized to increase the critical transition rates of children from ASAL communities to higher education (Republic of Kenya, 2010).

Preliminary studies to evaluate the impact of the FPE Policy of 2003 especially for pastoralist communities show that, compared to National Net Enrolment Rates of 22.3%, Net Enrolment Rates (NER) in pastoralist districts increased by an average of 28% (Sifuna, 2005, pp.508-509), although the number of children from pastoralist communities participating in formal schooling remained much lower. The increase in enrolments in pastoralist districts was however accompanied by high dropout rates averaging 9% compared to the national average of 5.4% (Sifuna, ibid). Recent statistics, for example, indicate that an arid region like Wajir in 2007 had the lowest NER of 20.6% compared to Western which had 99%, being the highest in the country (MoE; 2011, p.22). This implied that the
little gains made in NER was being eroded by drop-out rates, occasioned mostly by factors related to the cost of education that the FPE did not sufficiently address given the inadequate amounts provided by the government. Turning to the primary completion rate (PCR) in Kenya, it increased nationally from 71.3% in 2003 to 81.0% in 2007 while the PCR in arid regions like North Eastern, increased from 23.7% in 2003 to 36.8% in 2007 compared to Central Province which registered 83.5% in 2003 and 86.2% in 2007 (MoE; EMIS, 2009). Hence, although the PCR for ASAL regions increased by 13.1% in the ensuing period, most of the ASAL regions did not even register half of the national percentages. In terms of gender parity, an arid region like North Eastern in 2007 had GPI of 0.52 compared to 62% of other regions in Kenya that had GPI greater than 0.90 (MoE; 2011, p.29).

Secondary school education in ASAL regions lags behind the rest of other regions in Kenya. For example, in 2006 there was one public secondary school for every 774 students in semi-arid Kitui, and one for every 4,142 students in the arid North Eastern (GoK, 2009, p.13). The enrolment pattern tended to be more or less a replica of primary education. For instance, indicative data on secondary Gross Enrolment Ratio (GER) in North Eastern (NE) show that enrolment rates marginally decreased from 8.0% in 2003 (girls 2.0% and boys 14.0%) to 7.0% (4.4 girls and 9.7 boys) in 2007. In the same period Central Province’s GER increased from 44.4% (46.4 girls and boys 42.4) to 52.3% ( 51.3 girls and 53.3
boys) which indicated that NE’s figures were far much lower than the national rates of 28.5% in 2003 and 36.8% in 2007 (MoE; EMIS, 2009, p.10). Even when the GER increased in ASAL regions, in terms of gender, the female one was quite dismal, registering below 50% of the male as shown in the figures cited above.

In terms of KCSE enrolments and performance, the number of candidates registered in ASAL regions has been increasing in most of the centres. However, various statistics from KNEC between 2003 and 2009 indicate that out of 51,583 candidates registered in ASAL centres only 2224 (449 females, 1775 males) scored grade B and above representing 4.3%. In the same period, only 7 (0.01%) students scored grade A (1female, 6 males) while 261(0.50%) scored grade A minus (45 females, 216 males) (Appendix11-KNEC, 2003-2009). Students from ASAL regions transiting to public universities in this period of seven years through affirmative action remained below 2% (Appendix12-JAB, 2003-2009). From the grades scored, students from ASAL regions were likely to be under-represented in professional courses offered in public universities due to failure to reach the threshold set by JAB on the ASAL affirmative criteria. Indeed, such students suffer from insufficient and equitable spread of resources in the education sector in terms of qualified teachers and well equipped laboratories and yet do the same national examination. Such under-achievement is likely to deny individuals and society the benefits associated with higher education in terms of
increased employment rates, higher average salaries, increased social status and overall economic security.

1.2 Statement of the Problem

The focus of this study was to establish the contributions of affirmative admission policies as a strategy to widen access for students from ASAL regions to universities in Kenya. Affirmative action was adopted by University of Nairobi (UoN) in 1989 to admit students from ASAL communities. The adoption of the policy was due to the realization by the public university administrators and the Kenya Government that ASAL regions continued to lag behind in socio-economic development and education participation at all levels due to circumstances outside their control. To redress this situation, the government adopted various affirmative strategies both at the basic education level and at the university level to provide a second chance for students from the ASAL regions to increase access to educational institutions. At the university level, admission was dependent on KCSE performance at Form Four by lowering the cut-off point to cater for majority of the students from ASAL regions who did not meet the JAB cut-off points. In this regard, the affirmative strategy entailed the admission of students from these regions at basic entry level and to professional courses such as medicine, law and engineering at the universities. The strategy has been in operation for about 20 years at the public universities. However, since its adoption
no studies exist to show if and how it is working to achieve the intended outcomes. This study was, therefore, designed to address two concerns:

a) Is the affirmative strategy as designed and being operationalized in the institutions making a positive contribution to increasing the number of students from the ASAL regions to universities and professional courses?

b) What affirmative strategies should be designed to best contribute to achieving this and how the strategies can be implemented at the institutions?

1.2.1 Purpose of the Study

The purpose of this study was threefold:

a) To establish the affirmative action (AA) access trends of students from ASAL regions to university and professional courses at the Kenyan public universities.

b) To explore the contributions of AA to these students in widening access and participation.

c) To investigate interventions that could be used to increase the number of students from ASAL regions to university.
1.3 Research Objectives

This study was guided by the following four research objectives:

a) To establish the trends in access to universities by students from ASAL regions in Kenya.

b) To establish the contribution that AA has had in increasing access of students from ASAL regions to universities and academic programmes in Kenya.

c) To explore institutional policies and programmes that could increase access of students from ASAL communities to the institutions.

1.4 Research Questions

The following research questions guided fieldwork for this study;

a) What have been the historical trends in access of students from ASAL regions to universities in Kenya?

b) What are the contributions that AA has had in increasing access and participation of students from ASAL regions to universities in Kenya?

c) What interventions can universities design to widen access and participation of students from ASAL communities to higher education?
1.5 Significance of the Study

The findings of this study will provide seminal data to planners, administrators and policy makers dealing with widening access and participation of students from ASAL regions. Second, the findings of the study will assist university policy makers and administrators to establish institutional policies and programmes which can be used as interventions to increase access and participation of students from ASAL and other backgrounds to universities. Third, the findings of this study will contribute to the literature on widening access of the disadvantaged students to the universities through institutional interventions in a developing country like Kenya. This will serve as a thrust for further research on the role of the universities to widen access to the disadvantaged.

1.6 Limitation of the Study

The study was limited to universities in Kenya: two public and one private. Since the study was an exploratory one, it had a sample size of 150 students, key administrators at the universities, JAB, HELB and CHE. Education policy makers, development practitioners and lecturers from ASAL regions were also sampled so as to have a broad source of informants to provide data otherwise not obtained from students sampled. The data obtained from JAB secretariat were limited to what the researcher was given by the admissions office at the UoN in
the selected years that students were admitted to the public universities. In spite of several requests to get the raw data, it was not possible to get it due to logistics beyond the researcher that touched on the time taken to get a response. However, the documentary data from JAB was counter checked with that of HELB so as to ascertain the number of students admitted from ASAL regions through JAB. The sample selected was suitable in determining the appropriate interventions that could be used to improve access and participation.

1.6.1 Assumptions of the Study
This study was based on the following assumptions:

a) Students from ASAL regions are enrolled in both public and private universities in Kenya.

b) The participants in this study will have adequate understanding of issues that relate to students from ASAL regions in terms of access to university education in Kenya.

c) Institutions keep reliable data on student admissions from ASAL regions in terms of district, gender and course(s).

d) The participants will divulge information about access, participation, retention and completion in a truthful and knowledgeable manner.
1.7 Theoretical and Conceptual Frameworks

The overall goal to widen access to universities is to recognize that some sections of society like the ASAL communities are not equitably represented in spite of the application of the current affirmative policies. The following theoretical and conceptual frameworks explained below guided this study.

1.7.1 Theoretical Framework

Three theoretical frameworks underpinned the conceptualization, fieldwork and data analysis for this study. The theoretical frameworks were: Social Capital Theory, Validation Theory and Social Identity Theory. Social Capital Theory refers to the various expandable group networks that one belongs to and which in turn provide one with access to various resources. The theory takes two mutually inclusive views: bonding and bridging. The former refers to internal linkages while the latter refers to external linkages (Wee-Ling, 2006, p.78). The two linkages have to be used to facilitate representation of the disadvantaged in higher education. In the social setup, there are reasons why students from disadvantaged backgrounds are less likely to complete basic education and gain entry to higher education. These include expectations of family and community, financial hardship, ambivalent attitudes to education, limited role models/mentors, poor study skills, inadequate academic preparation, lowered expectations and standards, poor attendance patterns and an unstable, often inexperienced and sometimes uncommitted teaching staff (Tranter, 2005, p.9). Among the ASAL communities as a disadvantaged group, these barriers include unfavourable
cultural inclinations, harsh weather conditions, high poverty levels, inadequate educational infrastructures, low levels of primary and secondary school participation among others (Arero, 2005). Basically, even when barriers touching on social demands, cost of education and low academic achievement are addressed among the disadvantaged, other considerations such as expectations, motivations and aspirations that impinge on the preconceived ideas about further education have to be addressed especially if one comes from a background where higher education is not valued (Gale et al., 2010). The consequence of using interventions would be to enable the disadvantaged group’s access to higher education and to professional skills, expertise, positive values and success that can bring greater good to individuals and the whole community (Oanda, 2006).

Validation Theory is used to show that disadvantaged students can be assisted to develop confidence in learning ability and that they can offer something in the social and academic community. It is argued that students from disadvantaged low-income backgrounds find it difficult to get involved on their own (Chaves, 2006). Validation is critical to this group of students due to the unique challenges faced both academically and socially. Such challenges call for improved interventions in form of financial aid, academic and institutional support in higher education. Validation Theory complements Social Capital Theory by providing an enabling, confirming and supportive process to disadvantaged students both in-and-out-of class environments. Disadvantaged groups can be supported to
successfully pursue higher education using pedagogical approaches that recognize the past inadequacies of insufficiently equipped schools in terms of staff and other facilities.

Social Identity Theory postulates that a person has several selves that correspond to different circles of group membership. The theory explains how people form a sense of belonging and discrimination upon joining a group (Zmerli, 2007). One’s social identities are determined by factors such as socio-economic class, gender, ethnicity and nationality. The theory proposes that when members of different social categories are put into situations involving cooperative interdependence and individual social interactions, the tendency would be to promote inclusion with minimum categorization of responses (Dupper, 2008). For students from ASAL backgrounds who are getting to universities for the first time, overt and covert negative messages about their socio-economic class or ethnic group lead to subordination, stigma and lowered social self-esteem. These are critical issues which determine the participation and success of disadvantaged groups due to lack of role models and cultural aspirations.

Overall, the three theories suggest that higher education institutions can improve on opportunities for students from disadvantaged backgrounds through interventions that build social networks. These interventions are pertinent so as to ameliorate the barriers experienced by the disadvantaged groups prior to
accessing higher education. Most students from ASAL regions come from a background where University is not part of the lived experience of the students’ parents, their communities and themselves. It is not part of their taken-for-granted way of being in the world, and they are aware (Tranter, 2005). In particular, universities have a critical role to recognize prior barriers experienced in basic education and to facilitate improved equitable admission of students from ASAL regions to obtain education that liberates, stimulates and informs the individual on the need to enhance economic growth and development. In the context of social justice, commitment to equity is informed by the belief that university student populations should reflect the composition of the wider national population without compromising quality. As for the students from ASAL regions, this is even more significant since university professional courses provide higher income earnings which in turn could reduce poverty and the degree of income inequality (Olaniyan and Okemakinde, 2008).

1.7.2 Conceptual Framework
Drawing from the three theories and literature review, the researcher developed a conceptual framework that guided the study. This was used to explain the barriers faced by students from ASAL regions in accessing universities, affirmative interventions to widen access and the likely outcomes. The conceptual framework presents three variables (Figure 1.1):

a) The independent variable: the barriers to access both in and outside school.
b) Intervening variable in terms of affirmative strategies.

c) Dependent variable manifested in terms of access and participation of students (outcomes) at university and in the labour market.

Figure 1.1: Conceptualized model of barriers and affirmative interventions needed to increase number of students (outcomes) from ASAL regions to universities in Kenya

Due to high poverty levels, most parents are unable to meet other costs that are not provided by the government. These costs include uniform, food and teaching materials. The high poverty levels contribute to low levels of primary and secondary school participation which is linked to inadequate educational and institutional facilities. All these factors collectively and/or individually influence the completion and success rates. In most cases, these processes contribute to poor performance in the national examinations and yet academic achievement is a key
predictor to participation in higher education. The poor performance tends to limit students from ASAL regions due to reduced chances of access to higher education and professional courses and jobs. To overcome some of these barriers, possible interventions were explored. The success of these interventions was associated with positive outcomes by the students in terms of access and participation. To ameliorate this situation, inputs in form of formal and informal interventions were deemed critical.

The interplay of both formal and informal interventions was intended to mutually reinforce each other leading to improved access and participation of the disadvantaged in higher education. Formal interventions envisaged include improved affirmative strategies such as financial support in form of loans and bursaries, institutional commitment, pedagogy and mentoring. These formal strategies are meant to address mainly economic and academic barriers before entry and while at university. The financial support given by government to students from ASAL regions upon admission to university takes care of tuition, accommodation and food. However, the finances may not be sufficient to meet costs like travel expenses, pocket money and daily upkeep given that majority of these students come from poor backgrounds (Republic of Kenya, 2004). It is envisaged that individual universities could supplement government efforts by formally instituting improved interventions to assist such students to access, participate and succeed in the courses pursued at university. Success in university
can be actualized when a student actively pursues academic goals and progresses to complete an academic programme thereby realize one’s potential as a citizen and a future professional in the world of work.

The main assumption that guided the conceptual framework of this study was that students from ASAL regions experience barriers of access and participation to university education and professional courses. These barriers are manifested at three levels, namely; school, local community and external influence of government policies. At the school level, students from disadvantaged regions tend to experience poor study skills, inadequate academic preparation, lowered motivations, poor attendance patterns, the distraction of students in the classroom, and an unstable, often inexperienced and sometimes uncommitted teaching staff (Tranter, 2005).

This study explored institutional interventions as inputs that could widen access of students from ASAL regions to universities, particularly in professional degree programmes. The outputs conceptualized were in form of skills, expertise, positive values and success. These were pertinent outputs that could be acquired upon successful completion of higher education which is critical in developing social and human capital in a society whose people live at high poverty levels.
1.8 Operational Definitions of Key Terms

a) Affirmative Action (AA)

This refers to policies and procedures designed to alleviate discrimination against marginalized communities like those in ASAL regions. In this study it refers to measures such as lowering of cut-off point for students from ASAL regions to access university basic entry and professional programmes and provision of financial aid.

b) ASAL Community

This refers to people that are indigenous in the Arid and Semi-arid Regions and are classified as disadvantaged in terms of development and investment due to cultural, economic, political and social obstacles leading to inadequate representation in national matters. In this study, ASAL community, disadvantaged, low socio-economic status (SES) and pastoralists are used interchangeably but it excludes members of non-pastoralist communities who may have settled in the fringes of ASAL regions that are rich in plantation agriculture. ASAL is also used to refer to both the Arid and Semi-Arid lands and regions.

c) Gender

Refers to the roles and responsibilities and entitlements for men and women; boys and girls that are created in families, societies and cultures. It also includes
expectations held about the characteristics, aptitudes and likely behaviours of both women and men.

d) Higher Education (HE)
Refer to university level education.

e) Institutional Interventions
Refer to strategies that can be used by individual universities to broaden access of the students from ASAL communities in Kenya. These strategies can be in form of admission criteria, financial aid, academic support, mentoring and aspiration all geared to ensuring access, participation and success.

f) Widening Access
Refer to strategies that require universities to recruit students from all social groups by using criteria that do not privilege one social group over others.

1.9 Organization of the Study
The remaining part of the study proceeds as follows:
Chapter Two presents a review of related literature. The review is presented in themes to provide a basis in identifying the gaps of knowledge that the study sought to address. Chapter Three discusses in detail the{}\textit{}methodology and the sample for the study. Methods of data collection and reporting are also discussed in this chapter. Chapter Four presents and discusses findings from the field. This
Chapter is important in presenting and analysing the following: background information and profile of students from ASAL regions at the selected universities, data on educational access trends for students from ASAL regions to basic education and universities in Kenya, implications of education policies on the participation of disadvantaged students at universities and into competitive courses, contributions of AA and access trends of students from ASAL regions to universities in Kenya and interventions to widen access as suggested by the respondents. Finally, Chapter Five presents a summary of the main research findings of the study, conclusions, policy summaries and recommendations for further study.
CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction

This Chapter reviews literature on trends and policies in widening access to universities for students from disadvantaged communities. The review is thematically done based on the research objectives and questions of the study. The Chapter is divided into four sections. Section One is a review of global scene and use of AA to widen access of students from disadvantaged communities into universities. The section also presents a review on access trends of disadvantaged students through AA in Sub-Saharan Africa. Section Two examines how AA policies have contributed to the increasing population of disadvantaged communities in higher education. Section Three presents a review of institutional interventions which can be used to widen access for the disadvantaged students to universities. Lastly, the summary and research gaps are presented.

2.1 Trends in Access for Students from Disadvantaged Communities to Universities: A Global Review

When productive or developmental opportunities must be shared in a population, there is a need to recognize that some sections of society are disadvantaged in terms of race, gender, age, nationality, religion, ethnicity or caste. The groups are considered disadvantaged due to socio-economic and political impediments that militate against equity. ‘Disadvantaged students’ refers to groups of people or individuals who are excluded from accessing certain services by reason of history,
gender, religion, region, race/ethnicity among other things compared to other groups/communities. Studies done in some countries indicate that students from disadvantaged communities under-achieve in university education due to socio-economic reasons. For example, China, a country with a minority population of over 100 Million, a study by Jacob (2006) addressing issues of minority access to university education found that minority of students constituted only 5% in the country’s universities. The study found that 82.1% of undergraduate students had fathers who graduated from high school while 73.8% had mothers with similar qualifications. This indicated that the level of formal education of parents was an added advantage in terms of those who accessed university education. The study had two major recommendations; one, it called for significant reforms in the college entrance examinations so as to assist students in the rural regions and two, the need to give financial support to those from low socio-economic status. The reasons established by Hong (2004) for the low access of students from disadvantaged communities to universities include the hasty policy of charging fees amid low increase in the incomes of China’s residents especially those from rural areas.

In the USA, limited access of students from disadvantaged communities to universities is mainly occasioned by social inequalities. The disadvantaged communities include African-Americans, Hispanic Americans, Native Americans, Latinos and women. These inequalities are associated with the social, economic,
political or educational limitations (Scott, 2009). As a disadvantaged community for example, the African-Americans in terms of college access and participation rate since 1999 has remained at 39.4% whereas that of the Whites was 43.9% and yet the dropout rate for the African-Americans was higher than that of the Whites by between 20-25% (Carter and Wilson, 2003:9). In terms of obtaining Bachelor’s degree, by age 25-29 only 34% were Whites, 17% Blacks and 11% Latinos (Belyakov A., Cremonini, L., Mfusi, M, and Rippner, J., 2009, p.15). A survey study by Cordero (2008) attempted to identify barriers of access among the economically disadvantaged minority students in university education at Texas State University. These barriers included: lack of funding, social acceptance, academic preparation and motivation. The study found that in spite of the existence of programmes and initiatives to recruit the disadvantaged, no model had been designed to test their effectiveness. The study recommended that universities should develop an effective model that could capture the concerns, perceptions, goals and ambitions of the disadvantaged. The current study used an exploratory approach to investigate trends in access and participation for students from ASAL regions as a disadvantaged group in Kenyan universities.

In Australia, like in the USA, the disadvantaged communities are people from low socio-economic backgrounds. However, while in the USA the disadvantaged are identified in terms of race, in Australia it is in terms of location. These include people from regional and remote areas and indigenous people (CSHE,
In Australia, widening access has been done both at national and institutional levels by targeting certain designated ‘disadvantaged’ secondary schools with low rates of entry to university education (Tranter, 2005). Reasons attributed to the low rate of entry for students from disadvantaged communities to universities included lack of encouraging factors and confidence, dropout and poor academic achievement. A study by Doyle and Hill (2007) indicates that while a disadvantaged community like indigenous peoples constitute about 2.4 per cent of the Australian population in the 2006 census; they comprise only 1.25% of the university undergraduate students. Due to such low rates, the following interventions have been recommended to improve on the participation of indigenous students in higher education: adoption of a holistic approach to schooling in terms of students’ learning life experience, community; curriculum tailored to the needs of indigenous students, appropriate staff training to promote supportive teacher student relationships and scholarships among other things. The study observed that the interventions so far used to widen access have made a significant impact in Australia mainly at a national level but are yet to be fully embraced at institutional level. Reasons attributed to the ineffectiveness at institutional level included cost of higher education, non-completion, low academic achievement and aspiration among the disadvantaged (Gale T., Tranter, D., Bills, D., Hattam, R. and Comber, B., 2010, pp. 9-10).
In the UK, disadvantaged communities are identified in terms of social class, gender, ethnicity and disability. The disadvantaged communities are underrepresented in university education due to poorer school performance which leads to fewer opportunities to progress to university education. While the policy of broadening participation in university education was intended to widen access, improve retention and enhance support for disadvantaged students, a case study under the auspices Institute for Policy Studies in Education (IPSE), found that the disadvantaged communities comprised about 50% of the UK workforce and represented only 30% of the student population in university education (Moreau, 2007). The under-representation was attributed to socio-economic barriers which affected school achievement. In a survey by Forsyth and Furlong (2000), it was found that barriers faced by disadvantaged students were financial, geographical and social in nature. These barriers contributed to these students to enrol in less prestigious courses compared to the more advantaged peers. The study recommended the need to improve on school achievement rather than use quotas in university admission. Financial assistance was also proposed to enable disadvantaged students to meet extra costs at university.

In other parts of the world, higher education institutions have recognized the underrepresentation of disadvantaged communities hence the need to broaden access. In Canada, for example, a survey done by Canadian Millennium Scholarship Foundation (2006) found that among indigenous people in 2005, only
9% had completed university degree compared to 23% non-indigenous people, although 39% graduated from post-secondary education. The interventions used in form of financial support to the socio-economically disadvantaged were reported to have increased the enrolment from 20 to 80% at post-secondary level. Other countries like USA, UK and New Zealand have adopted similar interventions to address widening access and participation of students from disadvantaged communities (Gale et al., 2010). The main goal of the interventions in these countries is to motivate students from lower socio-economic classes to aspire for better positions in society, better access to social capital in terms of useful contacts and networks for improving career opportunities, improved chances of integration in society among other things (Gupta, 2006).

Access to university education in Sub-Saharan Africa (SSA) is mainly dependent on socio-economic status to the extent that enrolment is dominated by students from the wealthiest households. This is manifested through the public funding mechanisms which act to exacerbate such inequities by providing free university education to the ‘best’ students, who happen to come from well-to-do households (Kwesiga and Ahikire, 2006). While countries like North America and Western Europe record a participation rate of 70%, the highest in the world, SSA registers 5% which is the lowest in the world, increase of about 4% since 1965. In Africa, in terms of equity to higher education there is greater awareness and need to widen access and participation for all groups of people especially the
disadvantaged in university education. The need stems from the fact that the access rate of disadvantaged communities to university education remains insignificant considering SSA has the lowest (Pityana, 2009). However, efforts to implement such strategies are impeded by lack of funds, insufficient physical and human resources.

Studies by Addae-Mensah (2002), Mario et al. (2003) and Oanda, Fatuma and Wesonga (2008) that have been carried out to evaluate these developments have shown that increasing access and privatizing trends have resulted to a scenario where entry into university education and participation in professional courses have become a preserve of students and families who are able to meet the increasing costs. Studies indicate that in terms of access to universities in Africa, about 56.6% of the under-represented students are from remote and/or economically underdeveloped regions due to lack of financial support at institutional level (Mario et al., 2003; Oanda, Fatuma and Wesonga, 2008). However, the studies do not indicate how the disadvantaged students can be assisted to equitably access the financial resources to enhance participation in university education. Indeed, financial assistance goes beyond the tuition expenses to include other living expenses which may not be catered for among the disadvantaged students. It is on this basis that governments in Africa and Europe are investing significantly in university education so as to redress regional, gender and socio-economic imbalances for future success. To ameliorate the imbalances,
universities in Africa, in particular, have been urged to effectively use affirmative policies to enhance equity in access and participation (Lee, 2009). As the number of students admitted to universities increases, the institutions have been urged to explore the access and participation trends of students from disadvantaged regions to establish the impact of the admission in terms of degree programmes as a means of enhancing equitable development of social and human resources.

To enhance equity and access, the South African government established a national loan scheme for the disadvantaged students joining university education. The government established the National Student Financial Aid Scheme (NSFAS) in 1996 to ensure that academically able students without financial resources could attend higher education. The scheme, administered by Tertiary Education Fund of South Africa (TEFSA), also raises funds, recovers loans and conducts research for the better utilization of financial resources. Higher educational institutions received a subsidy from the government to meet the number of students multiplied by various unit costs. The subsidy formula for universities on average accounted for 85% of the funding for these institutions with only 15% of funds being raised by the institutions through fees, contracts and sales of services. Despite these sources of funding, only 20% of the students benefit from the scheme and yet the loans do not cover the full costs of study in order to reach more students (Harte, 2006). Due to low funding, the NPHE recommended priority be given to programme areas in which blacks, women and physically
disadvantaged students were under-represented and in which their success rates were lower than those of whites (NPHE, 2001).

A study by Kapur and Crowley (2008) indicated that funding was done by the South African government in form of scholarships which targeted the disadvantaged students. Besides the scholarships, these students were also given loans using a ‘means testing’ to ensure that they reached those at the lower end of the socio-economic cadre. However, university education had a 45% drop-out rate among students who were mainly the poor blacks. This was because loans and bursaries given did not cover the full costs of study, living and other costs (South African Higher Education: Facts and Figures, 2009). The study concluded that the outcomes of these interventions were yet to reach most of the disadvantaged due to unpredictability of policy.

Review of the above studies has highlighted the low trends in access to universities for students from disadvantaged communities compared to those from well-resourced backgrounds. Reasons that impact on the access trends of disadvantaged students can be broadly divided into socio-economic factors, race/ethnic and location (Mullen, 2010). These barriers are manifested in terms of insufficient funding, lack of relevant or poorly implemented policies, low participation, retention and achievement rates in basic education, low or no entry into professional programmes, low completion rates and longer time to
completion. Due to these limitations, countries have come up with affirmative intervention policies to widen access and participation of these communities. Affirmative action policies are justified not only by the need to bring about equality, but also by the failure of conventional social policies to effectively reduce inequalities between disadvantaged and elite groups (Edwards, 1995, p.2).

2.1.1 Trends in Access for the Disadvantaged to Universities through AA in Selected Western Countries

Affirmative policies have been adopted to redress societal inequity in terms of public funding and policy measures in favour of disadvantaged members of society amid divergent arguments. Affirmative action can take forms of access interventions, financial aid policies, academic or compensatory programmes or a combination of both. At institutional level, these policies are implemented in the form of bridging/remedial courses, lowering of cut-off points and scholarship/loan provision among other strategies. In this light, AA has been deemed acceptable as long as it produces educational benefits to all students without discrimination.

Affirmative action debate raises three main issues, namely: who should benefit, how benefits should be allocated and when the allocation of benefits should end. In most African countries, such as Kenya where affirmative actions are sometimes driven by populist political rhetoric, questions are still posed whether
such policies really benefit the disadvantaged or are misused by the elite (Onsongo, 2009).

In respect of the ‘who’ question, where inequality and disadvantage do exist in terms of gender, race, ethnicity and location, there is a need to recognize the phenomenon and strategize for redress so as to create a just society. In reference to the ‘how’ question, it is proposed that affirmative interventions be implemented in a manner that weakens, rather than reinforces inequalities in society. Regarding the ‘how long’ question, it is suggested that the intervention will remain based on the social and economic relations that disadvantage sections of society (Dupper, 2008).

At university level, admission of students on affirmative policy has raised controversy in terms of whether it should be based on merit or quotas. Merit criteria would imply that all students are exposed to similar conditions while quotas would acknowledge lack of certain opportunities. The latter would be used as a temporary measure to remedy past and present inequities. The use of merit is critical as long as it does not contradict diversity as espoused by AA in widening participation for students from disadvantaged communities. A study by Pike, Kuh and Gonyea (2007) in the USA evaluated the merits for AA by examining the direct and indirect relationships in 428 colleges and universities. The study concluded that AA admissions significantly provided indirectly conditions for
majority White students to interact and learn about people who were different from themselves hence assisting them to learn to function effectively in a diverse society. However, the study had the limitation of using one year data and a single item questionnaire which provided a narrow view of diversity outcomes. The current study used four-year data on AA admission trends of students from ASAL regions in Kenya. Besides the questionnaire, this study also used other instruments like content analysis, interviews and focus group discussions to capture both quantitative and qualitative data.

Studies in the USA, Australia, UK and other countries have shown that socio-economic factors account for a great percentage of students from disadvantaged backgrounds that do not access universities (Gale et al., 2010). These countries however differ in the manner they have responded to alleviate the problems of access and participation of students from disadvantaged communities. In the United States, for example, affirmative interventions have been implemented using pre-entry training, financial incentives, regular group mentoring sessions and academic advice aimed at assisting disadvantaged students joining professional courses and fitting into the university programmes (Scott, 2009). Affirmative policy in the USA is basically designed to achieve diversity and ensure equitable representation of the target groups both in higher education and in the workforce. In a study by James and Taylor (2008), based on shared experiences among four minority students, it was found that gaining admission on
affirmative criteria to university does not guarantee completion. Such students have to be assisted to successfully compete with others without compromising merit. It was found that when disadvantaged students were assisted in group mentoring and academic advising, they were able to compete and appreciate their success. The study recommended that universities should provide broad support in terms of financing and pedagogy, besides admissions. Affirmative policies for the disadvantaged in the USA have faced challenges in spite of the relevance in enhancing equity for the disadvantaged in education access and participation. Indeed, there have been attempts to ban AA in USA but studies have shown the need to retain them especially where equity had not been achieved in all social groups. In Kenya, the implication would be that for AA to be benefit the disadvantaged groups, it has to go beyond access to include other interventions which can enhance completion. The current study explored other strategies like financial support to the disadvantaged as a means of improving access and retention.

An empirical study done by Tienda, Alon and Niu (2008) on the impact of a quota of ‘10% law’ that was used to admit students, found that in Texas top institutions, this law’ was less efficient than AA in achieving diversity of the admitted students. For example, when AA was used in 1996, the number of black students admitted was 5.1% and this dropped to 3.5% in 2002 when the 10% law was used. In the same period, the number of Hispanics dropped from 15.15 to 11.7%
(Tienda, Alon and Niu, 2008, p.23). In response to these findings, the flagship institutions changed the admission policies of the blacks and Hispanics, and yet the effects of the ban on AA did not improve on the admissions. The study recommended that universities create awareness in high schools where minority students attended. The study limited itself to the admission trends as documented and did not use other instruments to probe reasons behind the drop in admissions. Similar findings had been earlier reported in a predictive study by Epple, Romano and Sieg (2007) which was based on a theoretical model of variables of race, household income and ability and which found that the ban on AA in the USA led to substantial decline in terms of admission and achievement of the disadvantaged students especially in the top institutions of higher learning.

Recently, similar studies in the USA confirmed the findings on the ban on AA. A study by Yagan (2011) regarding the impact of the ban in 1996 at the University of California indicated that the ban reduced admission rates for blacks in the sample of 25,000 by approximately 50% among undergraduates in the law schools in the USA. The study recommended the need to maintain AA for the blacks in elite institutions of higher learning in the USA since in some public universities; statistics indicated drops of up to 46% among African-American students (Hashatse, 2011, p.5). Another study by Hinrichs (2010) using a cross-state approach to estimate the effects on the ban on AA, found that the ban led to disadvantaged students shifting from selective campuses to less selective ones at
the University of California. In terms of enrolment, a decrease of at least 2% was registered among the Hispanics and blacks. The study recommended that AA should be maintained as long as inequalities in income and educational attainment existed. The two studies had limitation of research design which focused on predictive quantitative statistics that was restricted to the impact of banning of AA in some universities.

Affirmative action in the UK embraces the merit criteria even when they are used to address the large discrepancies in the take-up of higher education opportunities between different social groups. Part of what Higher Education Funding Council (HEFC) does to widen access and participation of underrepresented students in higher education includes targeted funding, offering guidance for secondary school students, encouraging university mentoring of secondary school students living in disadvantaged regions, pre-entry programmes and encouraging secondary schools to have contacts with universities (DfES, 2006 and 2003). In spite of interventions in the UK, young people from the highest social groupings were reported to be five to six times more likely to attend university than those from the most disadvantaged backgrounds. Similarly, a quarter of universities in the UK failed to meet their targets to admit disadvantaged students (HEFCE, 2006). In terms of gender, even when female students reached 55.31% of total enrolment, Mathematics, Science and Technology (MST) subjects reached 30.1% only.
An empirical study done by Lane (2009) in Australia, found that AA, in form of student support programmes like curriculum and pedagogical reforms, enormously increased indigenous people’s education right from basic to higher levels of education. For example, the number of indigenous university graduates increased from 3,617 in 1991 to about 24,000 in 2008, a 563% increase. However, in spite of this increase, evidence showed that 25% of the population in Australia defined as low socio-economic backgrounds continued to represent just fewer than 15% of Australian university students. Similarly, a survey by the Centre for the Study of Higher Education (CSHE) in Australia also found that people from low socio-economic backgrounds were particularly under-represented in prestigious and competitive courses such as ‘medicine, law and architecture but were under-represented in teacher education and agriculture’ (CSHE, 2008, p.25). For instance, between 1993 and 2007, only 2% of the Indigenous Students graduated as Engineers and Architects. Another finding was that while 30% of the indigenous people obtained high school certificates, only 16.6% of these continued to higher education to contrast with a national average of 50% (Gale et al., 2010, p.7-10). However in Kenya, it was important to explore if and how the universities, in the context of the new promulgated constitution (2010), the Gender and Equity Commission and the Parliamentary Committee on Equal Opportunity take up these issues of widening access.
2.1.2 Trends in Access for Disadvantaged Students in Sub-Saharan Africa to Universities through AA

In Sub-Saharan Africa (SSA), the social groups that have been consistently categorized in the literature as disadvantaged are female, ethnic minorities, rural and urban slum residents, persons with disabilities and communities inhabiting ASAL regions. Widening access to university education in SSA remains relevant to students from disadvantaged communities due to challenges like poverty, socio-cultural barriers, low participation and retention rates in schooling, underinvestment in higher education among other things (Kwesiga, 2002; Morley et al., 2006). These challenges have contributed both directly and/or indirectly to stagnation of the number of disadvantaged students accessing university competitive degree programmes. The critical issue is how to find the best way to redress the past and existing imbalances and improve conditions of individuals and groups who have been and may continue to be disadvantaged on grounds of ethnicity, region, gender and socio-economic status.

Affirmative action in Uganda, for example, takes form of 1.5 scheme, science and district quotas, talented athletes and people with disabilities (PWDs). The 1.5 scheme adds one and a half points to the scores of qualified female applicants for undergraduate programmes (Kwesiga and Ahikire, 2006). Other categories of students considered under the scheme of reducing points include Children of Makerere University Staff by 5.0 and PWDs by 4.0. The other AA took the form of science and district quotas where each district was given certain slots per
division and per programme in the case of merit-based science admissions. The scheme aimed at ensuring that each part of Uganda sent students to public universities. The district quota system was introduced in 2004 to enable bright students from underprivileged schools in remote districts to get university education on government sponsorship. The implementation was done in stages where the first priority was to people who had schooled in their home district. The second stage was for those districts that could not fill the quota hence took those who originated from the districts but had studied in schools in other districts.

In a study by Kwesiga and Ahikire (2006) at the Makerere University, the 1.5 scheme for female admissions significantly increased enrolments from 24% in 1989 to 30% in 1990 and by 2004 stood at 37% for government-sponsored programmes. However, the 1.5 scheme had more impact in humanities than in sciences. For example, in the period between 1988/89 and 2002/03, female representation in humanities increased from 29% to 54% while in sciences in the ensuing period, it increased from 13% to 18%. Just like the 1.5 scheme, the quota criteria which allocated sixteen slots for each district ended up admitting more students in humanities. The study concluded that even if the 1.5 scheme and quotas had increased the numbers at Makerere University, the privileged had an added advantage of increasing their points to gain entry to the programmes of their choice more than those from disadvantaged schools and poorer families. The outcome was a replication of elite privilege, whether it was of women's
affirmative action or quotas such as for science and districts. The quota system had been abused whereby more than 100 students admitted in the 2006/2007 academic year were discontinued because they declared wrong information about districts of origin. Indeed, the beneficiaries were those already privileged, largely urban and from mainly good schools. For example, in the 2005/2006 intake, of all those admitted to the Bachelor of Science (BSc.) programme in Medicine and Dental Surgery, ninety were from urban schools, principally from the central region, with the exception of only three schools from the West part of the country (Ahimbisibwe, 2005).

A study done in Uganda by Carrol (2005) linked financing to a limitation to university education among the disadvantaged. Due to financial constraints, it was found that university education had been filtered through a complex web of class, gender and region. For example, the study concluded that the introduction of privately sponsored students at Makerere University made it easier for the rich to access government sponsorship unlike the economically disadvantaged. To the disadvantaged, this was due to inability to pay for the best basic and secondary education. The study recommended that students from disadvantaged backgrounds to be given loans so that university education does not continue to benefit those who can pay. However, the study does not propose how the funding can be efficiently done to avoid the elite benefiting even more than those from disadvantaged backgrounds.
The Access to Success Project (European University Association, 2009) is a partnership aimed at raising awareness of access and retention issues in higher education in Africa and Europe. It also targets at exploring how higher education institutions in both regions are coping with the changing demands of their specific socio-economic environments. The project has attempted to discuss widening access to university education issues from a comparative standpoint, bridging policy-makers and higher education institutions from both Africa and Europe and encouraging mutual learning. The outcomes of the partnership underscored the importance of higher education to the long-term development of knowledge-based society across all social groups (European University Association, 2010). The concerns on AA in SSA preceded privatization of university education with the emergence of studies on social class and educational inequalities. Informal political declarations contributed in redressing some of these inequalities. The affirmative action on gender gained formal momentum after the Beijing Women’s Conference in 1995. In the context of SSA, most policy reforms in the last decade have concentrated in expanding access and semi-privatization of higher education institutions (Oanda, Fatuma and Wesonga, 2008).

In SSA, access and equity to university education is moving away from the trend of giving priority to merit in the admission process towards the application of some mode of AA for selected underrepresented groups (Clancy and Goastellec, 2007). One area that has been significant in this debate is specifically the extent to
which access of women and minorities to professional courses in the universities is equitable. Two, is the affordability of these courses especially to students from disadvantaged communities, within a privatized public university context.

Interventions to increase access to higher education in various countries have indicated significant increases among women using different approaches that include gender mainstreaming and AA. A study by Morley et al., (2006) using both quantitative and qualitative data, delineated comparative case study insights across five Commonwealth countries of Nigeria, South Africa, Sri Lanka, Tanzania and Uganda. The study attempted to systematically intersect gender and higher education. It was found that using different approaches to increase women enrolment, the results were as follows in the five Commonwealth countries: Nigeria 39.9%, South Africa 53%, Sri Lanka 53.8%, Tanzania 24% and Uganda 34% as of 2002. However, in spite of these increases which were associated with enablers like exposure to role models both at home and in school, national policies and community initiatives, women participation in university education in terms of degree courses were minimal in sciences. For example, in South Africa, women mainly dominated in humanities and health sciences. This was attributed to barriers of low participation in primary and secondary schooling, under-representation in sciences and technology, poverty and race among others. The trend was similar in the other four countries. The findings also indicated that the entry of women into university education through AA, especially the pre-
university/remedial mode was deemed to be a means to increase access as was the case in University of Dar es Salaam (UDSM) in Tanzania.

A study undertaken by researchers from the UK and Africa (Ghana and Tanzania) tried to conceptualize the idea of widening participation in Africa and how gender, poverty and socio-economic status intersected to bar students from underprivileged groups to access university educational opportunities (Morley and Lussier, n.d., p.2). The study established that through institutional affirmative interventions like quota systems, bursaries and remedial training the number of women increased but was below that of men (Morley, n.d., p.9). For example in 2002, women in higher education constituted 24% in Tanzania, 34% in Uganda and 39.9% in Nigeria. In a private university in Tanzania, in the academic year 2007/08 women were 10% in mathematics and 25% in medicine (Morley and Lussier, n.d., Lug, Morley and Leach, 2007). However, the studies concluded that poorer women were still under-represented as students in university competitive programmes like medicine and law in low-income countries. The study used both quantitative and qualitative approaches to collect data on women as a disadvantaged group. These were relevant approaches to our study which focused on the affirmative admission criteria to university for students from ASAL regions in Kenya.
According to a case study done by Bunyi (2003), SSA countries including Ghana, Kenya, Uganda, Tanzania, and Zimbabwe have used affirmative action policies in efforts to achieve gender equity. For instance, these countries have lowered the cut-off points for admission of female applicants. Consequently, between 1990 and 1999, female enrolments in Ghana grew by 6% and at Makerere University, in Uganda, by 7%; between 1990 and 1997. Similar trends were recorded in other universities in the countries studied whereby UDSM in Tanzania recorded the highest increase of about 10% between 1990 and 1996/97. A similar study by Kapinga (2010) at the UDSM corroborated the findings of Bunyi’s study which indicated that the number of female students in science courses increased from 15% in 1996/97 to 30% in 2003. The increase in female enrolments was due to the introduction of bridging courses and the establishment of gender units to conduct research on female education and equity. The study found that AA in form of lower admission cut-off points, remedial classes and gender sensitization were the interventions that helped to improve the enrolment of female students at universities in Africa especially at UDSM and Makerere University. The study recommended that AA be implemented in a way which could minimize the backlash on female students. However, the study was general on the enrolment of women in SSA without identifying the socio-economic background of those admitted. Our study attempted to explore the socio-economic background of the students from ASAL regions admitted on the AA to university in Kenya.
Other countries in SSA have made attempts to adopt AA policy of some kind. Botswana had adopted a policy of promoting a gender mainstreaming in all facets of national life. The University of Botswana was used as a national institution to promote this policy. In a study by Oduaran and Oduaran (2005), it was found that gender mainstreaming as a mode of widening access to university education had minimally reduced the dominance of male candidates in sciences and engineering. For example, between 1998 and 2000 at the University of Botswana, female candidates comprised 10% in engineering and other science courses. In Zimbabwe, the widening of access to university education was intended to move away from elite to a ‘mass’ system. However, an empirical study in Zimbabwe by Kariwo (2007), found that the use of AA remained inequitable to the disadvantaged students due to the issue of affordability especially when extra funds were required for maintenance. Without quoting figures, the study indicated that the number of students seeking university admission was more than the available places due to government’s limited finances to expand higher education. In the absence of enough places at the universities, the disadvantaged students were unable to access these institutions due to lower qualifications attained from poorly equipped schools. Even when some qualified, they were financially unable to pay extra funds for daily upkeep at the institutions. This led to inequitable opportunities in favour of the elite students. The study concluded that students from higher socio-economic background dominated university education and called for the disadvantaged to be given financial aid.
A study in Ghana by Addae-Mensah (2002) to establish the admission trends showed that increased expansion of universities had not widened the social bases of classes from where students were recruited with the projection that in future, over 70% of doctors, scientists, engineers, architects and other professionals would be produced from 10% of the population. The same conclusion has been made by Mario et al., (2003) in respect to public university education in Mozambique and also in South Africa with regard to the phenomenon of elite massification.

The studies were limited to presenting the statistics by showing the admission trends in terms of social class and degree programmes without presenting the impediments faced by those from disadvantaged groups. In this light, our study sought to explore the admission trends of students from ASAL regions in the context of increased admissions to universities.

Affirmative action in South Africa is anchored in the recommendations of two policy documents: The Education White Paper of 1997 and the National Plan for Higher Education 2001 (NPHE). Generally, the documents provided for the promotion of equity of access and fair chances of success to all who were seeking to realize their potential through higher education, while eradicating all forms of unfair discrimination and advancing redress for past inequalities. Since 1997, there had been significant progress in achieving the White Paper’s goal of
ensuring that the composition of the student body progressively reflects the realities of broader society (White Paper, 1997). For example, the enrolment of black students increased from 53% in 1993 to 71% in 1999 to over 74% in 2004 of the total head count enrolments (Department of Education, 2005). The participation of female students had also increased from 42% in 1990 to 53% in 2000 (Cloete, Pillay, Badat and Teboho, 2004). Data for the physically disadvantaged students were not sufficiently captured for proper analysis. However, equity of access to university education still remained a problem, as blacks and women students were under-represented in business, science, engineering and technology programmes (National Plan for Higher Education [NPHE], 2001). Institutions are expected to establish equity targets with the emphasis on the programmes in which black and women students were underrepresented and to develop strategies to ensure equity of outcomes.

To achieve this, the White Paper and NPHE documents proposed a funding formula as follows: of the total block grant given to institutions from the central government, 57% of the funds were allocated for teaching inputs, 14% for teaching outputs, 12% for research outputs and 6% for institutional factors. This latter category was generated by the profile of the institution in terms of “enrolment size and percentage of disadvantaged students”. In essence, this meant that institutions which have “large proportions of African and other black students
as South African citizens enrolled in contact education programmes” would receive additional funding.

From 1994 when apartheid was abolished, South African government has used AA in university education to correct the past socio-economic and political injustices which excluded certain persons on the basis of colour, creed, gender, disability and socio-economic standing (Oduaran and Oduaran, 2005). To redress past racial imbalances in education and gender, the government used AA so as to increase the participation rate in university education of students from disadvantaged groups. Using AA, the Gross Participation Rate (GPR) in university education in South Africa between 1996 and 2005 indicates that Africans had increased from 5 to 12%, coloureds from 9 to 13% and Whites decreased marginally from 61 to 60%. Even if the participation rate among the Africans more than doubled between 1996 and 2005 from 5 to 12%, this was affected by the high dropout rate of about 40% due to lack of sufficient funding. In terms of gender, black women from low socio-economic background were least represented in university education averaging below 1%. In a study by Bentley (2007) which attempted to identify who and what AA was for in South Africa, the conclusion was that the implementation of this intervention among the disadvantaged groups emphasized the process more than the outcomes.
In most public universities of East Africa, affirmative action policies were implemented for various groups that included female, physically challenged and students from disadvantaged communities like those from ASAL regions. The policies worked for the disadvantaged by lowering one or two points below the cut-off. This intervention faced various limitations which include failure of the lower cut-off point to reach the threshold of those who qualified, inadequate financing such as the case of UDSM, poor implementation and favouritism in terms of who benefited (as the case has been in Makerere and Kenya). These strategies did not achieve the intended results due to the fact that affirmative action policies were generally designed without regard to the socio-economic disadvantage of students. Our study addressed these gaps in two respects. One, it explored affirmative policies designed by the institutions that focus singularly on one group of students from ASAL regions. In this regard, the generalities that were inherent in past affirmative policies were addressed. Two, it went beyond access policies to examine other interventions. For example, student financial support schemes that could potentially increase the number of students from ASAL regions attending the institutions and who had enrolled in competitive

2.2 Contributions of AA and Access for Students from ASAL Regions to Universities in Kenya

In Kenya, like the rest of SSA, affirmative action has been applied to disadvantaged groups that include women, ethnic minorities, rural and urban slum
residents, physically challenged and communities inhabiting ASAL regions. In Kenya, affirmative interventions have been mainly used to alleviate the under-representation of the female students whose participation is minimal in science, mathematics and technology areas right from basic to university levels and even in professional courses (MoE, 2008:23; Mohamedbhai, 2007 African Union, 2006). In recent times, policy documents in Kenya have indicated the need to have affirmative interventions for the disadvantaged students from ASAL regions who face challenges such as high poverty and illiteracy levels amid inadequate policy guidelines on widening access (MoE, 2008; MDG Africa Steering Group, 2008). Affirmative policy interventions so far used in Kenyan education system have mainly focused on increasing rather than widening access and participation countrywide. Similarly, these policies have mainly focused on primary level and to some extent secondary school level. In the ASAL regions of Kenya, the policy interventions so far used have had some impact in primary school enrolment. The critical focus for such policy interventions has been to raise academic achievement, confidence and aspiration, retention and completion.

At university level, research findings on Kenya show that regional inequalities affect the socio-economic status of students in terms of access to university education. In a study done by British Council (1996), using surveys, field observations and content analysis from five universities, findings indicated that majority of the undergraduate students at university level were from regions and
families of higher socio-economic background. The study also revealed that parental level of education had an impact on a student’s access to university. For example, the study found that public university education increasingly favoured sons and daughters of the elite Kenyan society. However, in terms of gender, female students were fewer and they were mainly enrolled in Arts-based courses. The study recommended that preference should be given to the poor but gifted students to enhance equity in university education. As for the education of women, the study proposed the formulation of policies to minimize the disadvantage of this category right from the family, school and job market. Recent data indicate that between 1999 and 2005 only 0.5% females enrolled into universities in Kenya were from the ASAL regions and 83.4% from higher income regions (Griffin, 2007, p.23).

Another empirical survey study done by Achola (1997) on regional and socio-economic origins of students in Kenyan public universities found that most students in universities came from historically and educationally advantaged areas with good provincial schools, district schools and national schools. These students were also found to be aware of marketable degree programmes and their relevance. The study recommended the need to improve access to university for the disadvantaged through bursaries and other material resources. But it was not specific in terms of affirmative strategies. The two empirical studies (Achola, 1997; British Council, 1996) indicated that majority of the students accessing
public university education and competitive courses were dominated by those from high socio-economic backgrounds, specifically students whose parents had secondary education and above. In this regard, most students from ASAL regions were disadvantaged given that they did not access schools with requisite infrastructure due to high poverty levels experienced by their parents. This led to poor performance which minimized their participation in university education.

The affirmative criteria for students from ASAL regions targeted those who did not meet the cut-off point for university entry. Admission was done by lowering points by between 1-3 points for the basic admission and between 1-5 points for the competitive courses (JAB, 2005). In a survey by Nungu (1997) on AA at three public universities in Kenya, using document analysis, interview guide and questionnaire, findings indicated that on the gender criterion, women were under-represented in most of the disciplines except in Bachelor of Education and Home Economics in spite of affirmative intervention. Lowest under-representation of women was noted in science based courses like engineering. Participation in university education by region indicated that high potential districts dominated in university places over the disadvantaged ASAL regions of North Eastern. The ASAL regions were in particular under-represented in professional degree courses in engineering and medicine. The study concluded that in spite of the use of AA in Kenya’s public universities, regional and gender inequalities persisted. This was because affirmative policies were poorly thought-out, unfocused and
remained un-monitored. The study recommended the improvement of educational opportunities for women and for the disadvantaged regions. But it was limited to the period between 1974 and 1994 when affirmative criteria for students from ASAL regions were handled under other disadvantaged districts in Kenya.

The affirmative intervention for women in Kenya was introduced in 1992 without regard to the socio-economic background of the beneficiaries (Nungu, 1997). The need for universities to have an affirmative policy for students from ASAL regions accessing public universities, like that of female students, emanated from political pressure and not institutional responses to a social concern. It was in this light that JAB after inception in 1989 on ad hoc basis established a sub-committee, as from 1995, to review admission criteria of students from ASAL regions. In 2005, the Kaimenyi Report did a major review of the four previous reports on the admission of disadvantaged students (1989, 1995, 1997 and 2001). The Kaimenyi Report, guided by these reports on the policy of AA in the admission of students from disadvantaged districts, recommended that the ASAL regions be divided into Pure Arid and Semi-Arid (JAB, 2005, p. 4). The districts were as follows: Pure Arid (Tana River, Turkana, Moyale, Marsabit, Isiolo, Wajir, Mandera, Garissa and Ijara) and Semi- Arid (Kwale, Kilifi, Lamu, Taita Taveta, Machakos, Kitui, Mwingi, Mkuenei, Mbeere, Tharaka, Narok, West Pokot, Kieni, Laikipia, Kajiado, Keiyo, Marakwet, Baringo, Koibatek, Samburu). The division was done based on the extent of aridity (Republic of Kenya, 2004).
The academic considerations of the ASAL affirmative policy included aspects like lowering the admission cut-off points between 1-5 points for general admission and lowering the degree weighted cluster points by 1-3 points. In the districts classified as Pure Arid, the lowering of cut-off points was to be done by 1-5 points below the set cut-off points and the degree weighted cluster by 1-3 points. As for the Semi-Arid, the admission and degree weighted cluster cut-off points were to be lowered by 1-3. Both the general and specific degree cut-off points were to be applied when the number of candidates admitted from ASAL areas was less than 10%. Lowering of the cut-off points was based on the simulations done for the year 2002 which showed that lowering of points for the ASAL districts could have increased students as follows: general cut-off points by five points could have increased the number from 196 to 235 while in twelve selected competitive courses at the UoN could have increased the numbers at least by one in most courses and at most by twelve (in Bachelor of Commerce). However, the lowering by five points did not benefit a single student in Mechanical Engineering (JAB, 2005). Hence, the lowering of cut-off points in both situations minimally increased the numbers of ASAL students to public universities.

To overcome the shortcomings of AA as practised, it has been proposed that there is need to formulate policies which can minimize the degree of deprivation among students from disadvantaged backgrounds right from the family, school and job
market (Griffin, 2007). Specific recommendations include: need to improve on school achievement before university admission, preference to be given to the poor but gifted students, reforms in the college entrance examinations to assist students in the rural regions, financial support to those from low socio-economic status, improvement of prospects for graduate employment.

Our study attempted to analyze the admission trends of students from ASAL regions into public universities in Kenya in a bid to establish the contributions of the affirmative policies as an institutional intervention to widen access and participation. We attempted to explore other institutional strategies like remedial training and financial aid as means of widening access to universities for students from ASAL regions as practised in other parts of the world.

2.3 Policies used to Increase Access of Disadvantaged Students to Universities

Equity of access to universities for all communities in society remains a challenge that has to be addressed by both governments and higher education institutions. The critical issue is how to find the best way to redress the past and existing imbalances and improve conditions of individuals and groups who have been and may continue to be disadvantaged on grounds of ethnicity, region, gender and socio-economic status. Policies that have been used by universities to increase access of disadvantaged students have implications depending on the modes used. Access to universities in most parts of the world is done through merit, quota
system and AA as means of enhancing diversity in higher education. Merit is the
dominant mode of access to university due to limited vacancies and it is applied to
all students on the assumption that they are exposed to similar conditions in the
provision of education. However, the merit criteria have been found to limit
equity in terms of access for students from disadvantaged communities because of
the socio-economic barriers. It is on this basis that quotas and AA are used to
address the inequities of access without compromising merit (Dupper, 2008).
Hence, the implication is that the use of merit should not necessarily be in conflict
with affirmative interventions as long as the intention is to increase equitable
access of the disadvantaged to universities.

The quota system is used to enable bright students from deprived schools in
remote regions to get university education through government sponsorship. The
rationale for this is to ensure that the disadvantaged students get their share of
which they may not have got if merit was the only criteria for access to university.
Quota and AA are used as temporary measures to remedy past and present
inequities experienced by the disadvantaged students both in basic and university
education (Onsongo, 2009).

However, it has been argued that affirmative action could lower the value of
higher education, dilute standards or overload institutions already under-
resourced. This has made affirmative policies be opposed on grounds that they
extend access favours to students who are not academically prepared for higher education (Bertrand, Hanna and Mullainathan, 2009). But it is also fair to indicate that these students deserve to access universities through interventions that do not negate the principle of meritocracy, justice and equality. For example, the strategy of remedial training does not seem to attract much criticism since it assists to fill in whatever knowledge gaps that could have been missed in the educational ladder (Bunyi, 2003, p.4). This principle also recognizes the prior inherent inequalities that are experienced in terms of poor investment in education infrastructure and qualified teachers (Naidoo, 2000).

To widen access for the disadvantaged groups to universities, considerable policy changes have taken place in the USA. This has adopted two approaches: general expansion mode (on the basis of merit) and affirmative action (Scott, 2009). Both approaches have been used across the USA so as to enhance equity and diversity. This was implemented in form of pre-entry training, financial incentives, regular group mentoring and academic advising aimed at assisting disadvantaged students to join professional courses and university programmes. The implication here is that affirmative interventions have to go beyond admission to include financial support to ensure participation and completion for the disadvantaged students ((Altbach, Reisberg and Rumbley, 2009).
Affirmative strategies in countries like the USA, UK and Australia have significantly contributed to the percentages of those who qualify for university admission. In Australia, for example, when affirmative interventions in the form of student support programmes like curriculum and pedagogical reforms were used, the percentage of indigenous people’s education increased by 563% at university level (Lane, 2009). Similarly, in Canada, the use of AA in form of financial support among indigenous people in 2005 increased the enrolment from 20 to 80% at post-secondary level (Canadian Millennium Scholarship Foundation, 2006). However, the interventions were mainly used at a national level and were yet to be fully embraced at institutional level. The institutions were yet to devise effective interventions that could cater for the non-completion, low academic achievement and aspiration among the disadvantaged students (Gale et al., 2010).

In Sub-Saharan Africa, various studies have raised concern regarding access of students from disadvantaged communities to university education. Network of African-wide study (African Higher Education Collaborative), launched by African Union summarized the persistent barriers to university education in Africa to include historical, social and economic (Africa Commission, 2008). Acknowledging these barriers, governments have endorsed interventions to increase the access of disadvantaged students to university education in Africa. However, most interventions have focused on the situation of women to the exclusion of other disadvantaged categories like students from ASAL regions.
A study in Uganda on student access and equity by Kwesiga and Ahikire (2006) categorized three aspects of access. These were:

a) Entry in regard to the level of openness in terms of who is recruited to the institution compared to the existing diversity in the country.

b) Equal opportunity provided to take part or share in the system, for instance, what the system offers and to whom.

c) Outcome of entry and participation pertaining to educational results or gains.

Referring to the famed growth of student numbers in Makerere University and its implications on access, the study notes that with the introduction of privately sponsored students, the well-to-do have easily accessed government sponsorship while the disadvantaged have been either concentrated in private programmes or excluded from university education altogether. The study concludes that even if the 1.5 scheme and quotas have increased the numbers at Makerere, the privileged have an added advantage of increasing their points to gain entry to the programmes of their choice more than those from disadvantaged schools and poorer families, who often have lower, but are qualified for admission. The outcome has been a replication of elite privilege, whether it is of women’s affirmative action or quotas such as for science courses (Ahimbisibwe, 2005). In terms of access to university, focus has been on admission of the disadvantaged without requisite financial support and this affects the critical aspect of participation and completion (Scott, 2009).
In terms of gender, for example, in 2002, studies done in some countries in Africa (Morley and Lussier, n.d., Lug, Morley and Leach, 2007), indicate that women in higher education constituted 24% in Tanzania, 34% in Uganda and 39.9% in Nigeria. In a private university in Tanzania, in the year 2007/08 women were 10% in mathematics and 25% in medicine. However, the studies concluded that poorer women were still under-represented as students in university competitive programmes like medicine and law in low-income groups in society. The implication here is that the use of AA on gender treats women as being homogenous and yet they are not. Hence, universities need to target those women who are more disadvantaged as the degree varies in society.

In South Africa, even if higher education institutions receive a subsidy from the government on the basis of the number of students multiplied by various unit costs, only 20% of the students benefit from the scheme and yet the loans do not cover the full costs of study in order to reach more students (Harte, 2006). Similarly, financial assistance in form of loans and bursaries given do not cover the full costs of study, living and other costs (South African Higher Education: Facts and Figures, 2009). This implies that due to unpredictability of policy interventions, outcomes are yet to reach most of the disadvantaged students especially in terms of financing them.
2.4 Summary and Research Gaps

The review of literature here has demonstrated three trends which create a gap in knowledge for the present study. One, affirmative policy in the developed and developing countries has mostly focused on the admission of disadvantaged students by lowering points especially women and the physically challenged. At institutional level, universities were yet to design specific interventions to increase access of disadvantaged students. Two, the overall impact of AA in Kenya has not been established since the extent of the beneficiaries is not explicit compared to other countries. In countries like South Africa and other developed countries, the impact has been captured with performance benchmarks at institutional level. Three, there is need for AA to include interventions like targeted financing, mentoring and academic advising. In this context, the challenge is on how public universities can develop responsive interventions that can go beyond existing access and admission policies so as to address the demand for equitable access and success at universities for students from ASAL communities. This is why this study focused on students from ASAL regions.
CHAPTER THREE: METHODOLOGY OF THE STUDY

3.0 Introduction

This Chapter presents the methodological procedures that were used in the study. Specifically it provides details on the study design, location of the study, sampling procedures and sample size, methods of data collection, validity and reliability, research variables, analysis and reporting of data, and ethical considerations.

3.1 Study Design

The study adopted a descriptive cross-section survey research design. Cross-sectional survey involves a sample selected from a defined population and contacted at a particular point in time to help answer research questions. It is called cross-sectional because information collected about independent and dependent variables represents what has been or is going on in a defined population. The design is also useful in assessing practices so as to determine the magnitude of the problem and provide a basis for designing appropriate interventions (Olsen and George, 2004). The design was selected because it enabled the researcher to acquire cross-sectional data at a selected period from the respondents on access trends of the students from ASAL regions through affirmative action (AA) and suggestions on how to increase access to universities in Kenya. Overall, this being an exploratory study on policy interventions, the
design was considered appropriate for descriptive analyses on affirmative action as a strategy to widen access to universities for students from ASAL regions.

The survey was qualitative in orientation and it used basic descriptive statistics to present responses and opinions held regarding the issue of affirmative policy for students from ASAL regions. The data obtained from the respondents focused on barriers to access and relevant interventions to increase the number of target students to public universities. Consequently, using a combination of research methods the study was conducted at three levels. One, the researcher analysed the KCSE performance, the Joint Admissions Board (JAB) records on affirmative admission trends and loan applications from HELB by students from ASAL regions. Two, the study examined the AA policy as formulated by JAB so as to establish the contributions of the strategies to increase access of students from ASAL regions. Three, the researcher used convenience, stratified and purposive sampling procedures. Convenience and stratified sampling procedures were used to get a sample from the students to respond to the questionnaires and participate in the focus group discussions (FGD) respectively. Similarly, purposive sampling was used to obtain a sample to be interviewed from university administrators, JAB, higher education government agencies that finance students (HELB) and oversee quality assurance (CHE), development and policy experts working in ASAL regions and local lecturers as pertains to contributions of AA strategies to widen access of students from ASAL regions to universities.
3.2 Target Population

This study indirectly targeted all 7 public and 23 private universities as unit of analysis. The public and private universities had an enrolment of 117,942 and 3324 undergraduate students respectively (CHE, 2010). It was at the public universities and one private university (USIU) where AA for students from ASAL regions was practised and to whom the results of the descriptive cross-section survey applied. The key respondents constituted students from ASAL regions at the universities, administrators and lecturers from ASAL regions at the public and private universities. The study population included 550 university students from ASAL regions at the universities, administrators namely: 8 Vice-Chancellors, 8 Deputy Vice-Chancellors in charge of Academic Affairs, 8 Registrars (Academic), 50 deans of schools/colleges, 3 University administrators in charge of student welfare and 6 lecturers from ASAL regions. Other main respondents were: 6 respondents working as policy makers or practitioners in Ministry of State for Development of Northern Kenya and other Arid Lands, two top executives, one from each of the two agencies, namely: HELB and CHE. These were the agencies responsible for funding and regulation of higher education in Kenya.

3.3 Study Locale

The location for this study was in three universities located at different regions of the country. Two of the universities are located within Nairobi, Kenya’s Capital City: University of Nairobi (public) and United States International University
University of Nairobi (UoN) was selected for this study because besides being the oldest and largest public university in Kenya, it pioneered AA for the Disadvantaged Districts and the JAB secretariat operated from the institution. The AA for the Disadvantaged Districts was conceived in 1989 under University of Nairobi Admissions Board. University of Nairobi had six campus colleges, namely: Colleges of Agriculture and Veterinary Sciences, Architecture and Engineering, Biological and Physical Sciences, College of Education and External Studies, Humanities and Social Sciences, Health Sciences and College of Business. United States International University (USIU) was selected for this study because it was private and admitted two students annually on AA from ASAL regions since 2009.

Moi University (MU) was selected for this study because it was established so as to admit students to reflect the national cultural heritage of the various communities. Moi University was established as the second university in 1984 and by 2012, the University had expanded from its initial one Faculty to a total of Thirteen (13) Schools, four (4) Directorates and one (1) Institute.

The two public universities (UoN and MU), combined, had the highest number of students from ASAL regions into respective degree programmes. This meant that because ASAL communities were fairly homogenous, the students from ASAL
regions selected at the two public universities were representative of those in the other 5 public universities.

3.4 Sampling and Sample Size

Both non-probability and probability sampling approaches were used in this study. Convenience sampling is a non-probability method used by the researcher to select respondents in the absence of the profiles of those to be studied (McMillan, 1996). The technique was used because the administrators at the universities did not keep profiles of students in terms of district of origin. Hence, convenience sampling was used to obtain a sample that was not forthcoming from the university records. The researcher ensured that at least one student from the 8 arid districts that benefited from the AA was given a questionnaire where possible. Consequently, at the public universities the researcher used the 2005 to 2009 JAB admission statistics to target approximately 500 students at the institutions and who had benefited from AA (JAB, 2010). At the private university (USIU), affirmative intervention had been in place for two years since 2009 and admitted two students from the ASAL regions annually. The Admissions Office was not willing to give details of the students citing confidentiality. However, at USIU, the researcher targeted 50 students who were conveniently given questionnaires. In total, 550 students were targeted at the three universities of which 150 (27%) were given self-administered questionnaires and 131 (24%) responded. The total percentage of the respondents (24%) was deemed
representative of the target population because the ASAL communities are fairly homogeneous such that even if the percentage was to be increased there would not be significant difference in terms of data collected. This study also used stratified sampling technique (probability) to compliment and clarify data captured in the questionnaires.

A stratified sampling technique is where the researcher divides the entire target population into different subgroups and then randomly selects the final subjects proportionally from the different strata. Stratified sampling was used so as to ensure that the relevant subgroups are adequately represented in the study sample to participate in FGDs at the three universities. The responses of students from self-administered questionnaires were stratified in terms of year of study and gender. At every target university, one case study of FGD was constituted comprising of 6-10 (12-20%) members.

To complement data captured in the convenience and stratified sampling techniques (questionnaires and FGDs), purposive sampling was used to select case studies at the three selected universities so as to get data from university administrators, JAB, HELB, policy makers/practitioners and lecturers from ASAL regions. Purposive sampling is a technique used to select a respondent who occupies a key position to provide data that is sought in a given institution (Teddlie and Yu, 2007). The choice of purposive procedure was used to identify
respondents who could best answer the research questions and objectives of the study in terms of admission trends through affirmative action for the students from the ASAL regions. Detailed sampling procedures and sample sizes that were used in each category of institutions and respondents are explained below as follows:

i) Universities:

Out of 7 public and 23 private universities in Kenya, three (10%) universities were purposively selected for this study; two (28.5%) public and one (10%) private. The universities as units of analysis were purposively selected because these were institutions where affirmative action for undergraduate students from ASAL regions was practised. The public universities were University of Nairobi (UoN) and Moi University (MU) while the private one was United States International University (USIU). University of Nairobi was purposively selected since it was a pioneer public university which had 36,931 (31.31%) of the total number of undergraduates enrolled at all the public universities. The university’s Admissions Board of 1989 was transformed to Joint Admissions Board (JAB) in the mid 1990s. Hence, a critical source of data on the admission of disadvantaged undergraduate students on affirmative action. Moi University was the second public university established on the platform that it could represent diverse communities to the best extent possible through suitable admission policies (Republic of Kenya, 1981). The university was started as a Science and Technology based institution whose location in a rural setting was envisaged to
cater for rural population like that from ASAL regions of Northern Kenya. The two public universities, combined, were found to be representative of other public universities since they had the highest number of undergraduate students (59.78%). Similarly, the universities offered programmes and professional courses in which most of the students from ASAL regions could be enrolled. At the two public universities, JAB admission records (JAB, 2005-2009) indicated that most ASAL regions were represented in most of the undergraduate programmes offered.

United States International University (USIU) was purposively sampled as a private secular university. The USIU is the first and only secular centre for education in Kenya and was founded in 1952 in the USA. USIU in Nairobi was founded in 1969 through a Presidential Charter and was awarded accreditation through the Kenyan Charter on December 10, 1999. It currently offers undergraduate and graduate programmes in the field of arts, sciences, psychology, international relations, journalism and business administration. Unlike other private universities which are for profit or have a religious affiliation, USIU offers scholarships to underrepresented communities in Kenya. The scholarships are meant to assist two bright students from ASAL regions in Rift Valley and North Eastern; and the informal settlements around USIU. The choice of public and private was intended to explore the practice of affirmative action.
ii) Students

The students were categorized into those admitted at the public and private universities. The public universities admit students in two modes. Module I are those admitted directly through Joint Admissions Board (JAB) after meeting the set cut-off points in a given year and are mainly funded by the government through Higher Education Loans Board (HELB). Those admitted under affirmative criterion are categorized under this module. Under Module II, are those undergraduate students who may have not qualified under Module I and have the ability to pay but can also access loans from HELB. The sample of this study was derived from Module I (regular) students at the public universities admitted through JAB since these were the students that the study focused on whose admission records were available from JAB admission secondary records. Module II (self-sponsored) students were not sampled as the universities did not keep records in terms of region. Students sampled at the private university (USIU) were based on the admission register provided at the institution.

Out of the 550 students targeted at the three universities, the researcher used convenience sampling to select 150 (27%) students from 8 arid districts to respond to questionnaires out of which 131 (87%) responded. At the public universities out of the 500 students estimated from ASAL regions admitted on AA as shown in JAB admission records between 2006 and 2009 (JAB, 2010), the researcher selected 50 students from each of the two institutions making a total of
100 (20%) of which 93 (93%) responded. To ensure equity in representation, at the private university the same number of 50 respondents from ASAL regions were sampled out of which 38 (76%) responded and that none had benefited from AA. Lack of access to profiled data at JAB and universities on the admission of students from ASAL regions constituted a limitation in determining the actual number of the students admitted from the 8 arid districts.

Stratified sampling was considered suitable so as to capture respondents from the 8 arid regions in terms year of study and gender. This was critical in establishing how AA for students from ASAL regions, as currently practised, had influenced the enrolment trends at the universities in terms of professional courses as espoused in objectives one and two of this study (Section 1.6). After stratifying respondents from the 8 ASAL regions, random sampling was used to pick one group of between 6-10 students from each university to participate in the focus group discussions based on programme of study and gender. To enhance variety of opinions, no one ASAL region was represented by more than one informant of the same gender in the FGDs.

iii) University Administrators:

Purposive selection was used to involve university administrators directly concerned with designing and implementing access and admission policies. These administrators included: Vice-Chancellors, Deputy Vice-Chancellors, Registrars
(Academic) and Deans of Schools. At the public universities a total of 16 respondents were selected as follows: two Vice-Chancellors, two DVCs and two Registrars from academic division, 10 deans in the fields of Engineering, Medicine, Law, Education, Business and Sciences. The deans in these schools/colleges were purposively selected. These were the fields that offered professional courses and were critical at providing policy interventions to widen access of these students. At the private university the selection was as follows: one VC, one DVC and one Registrar both from academic division, three deans in the following fields: Business, Humanities, Science and Technology. From the private university, the responses were obtained from the office in charge of admissions. All the 22 respondents from the three institutions were selected for the study to respond to a semi-structured (open-ended) interview on issues related to existing affirmative policies, their limitations and possibly suggest alternative ones. The administrators were critical in terms of exploring institutional interventions to increase access of students from ASAL regions and how these interventions could be translated into policy as stated in objectives three and four of this study (Section 1.6).

iv) University Lecturers from ASAL Regions:

The researcher targeted 6 lecturers from ASAL communities teaching in the universities. The researcher purposively identified these lecturers with the assistance of the academic division of the respective universities. Only three (2
male and 1 female) of the lecturers responded. They were interviewed so as to establish their perceptions on affirmative action for students from ASAL regions. Selection of these respondents was based on the fact that they were indigenous and, having gone through the education system up to university level, they were likely to provide informed opinion regarding access, teaching and learning conditions that influenced performance of students from the ASAL regions as outlined in objective three of this study. Besides, they could make proposals on how the limitations faced by students from these regions could be redressed through affirmative interventions in relation to objective three and four of this study (Section 1.6).

v) University Administrators in charge of Students’ welfare:

Purposive sampling was used to select six university students’ welfare officers of whom three (50%) responded to the open-ended interview. These were the officers in charge of students’ welfare matters that included accommodation, finance and catering. These officers were considered to play a critical role in the general welfare of students in terms of academic participation, retention and success at university. The senior-most officers were purposively sampled to provide data on non-academic student-support services that could enhance participation and completion. These officers also assisted in identifying the interventions which could promote the welfare and academic progress of students
from ASAL regions once admitted to the universities as delineated in objective three of this study (section 1.6).

**vi) Commission for Higher Education (CHE)**

At CHE, the Chief Executive Officer (CEO) was purposively sampled as the only person charged with the responsibility for the policy that regulates university education in Kenya. Part of the concerns of CHE was to keep consolidated data on university admission policies and number of students enrolled in various degree programmes. The CHE Chief Executive was selected to provide relevant data on interventions that widened access of students from ASAL regions to universities in relation to objective four of this study (Section 1.6). However, the Chief Executive did not respond to the open-ended interview but facilitated for data on student enrolments.

**vii) Joint Admissions Board (JAB)**

At Joint Admissions Board (JAB), the Secretary to the Board was purposively selected for this study because this was the respondent with the executive authority. Similarly, the Secretary was key person in terms of providing innovative strategies of admission on broadened affirmative action for students from ASAL communities. Joint Admissions Board was the only body in charge of undergraduate regular students’ admission to public universities. It was therefore a crucial source of documented data on access trends. The Board also admitted
regular undergraduate students on the affirmative criteria. The JAB secretariat provided information on affirmative admission procedures regarding university students from ASAL regions. The Board Secretary was also interviewed on access and admission policies for students from ASAL regions, what could be done to improve on the existing policies and the limitations of embracing widening access policies. Data obtained from the JAB secretariat was relevant as espoused in objectives one, two and three of this study (Section 1.6).

viii) Higher Education Loans Board (HELB)

The Chief Executive at HELB was selected for this study as a key respondent responsible for policy design and implementation. Higher Education Loans Board (HELB) was the Board that gave loans to university students, making it a major source of data on admission trends and financial assistance to this category. Higher Education Loans Board profiled students in terms of their socio-economic status for purposes of reviewing loan applications. It also documented students according to their district of origin. Hence content analysis at HELB was critical at capturing information regarding the number of students from ASAL regions who applied for loans, the percentage that was funded in terms of loans and bursaries, and funding levels. These data was useful when compared with data from JAB showing the total number of students from ASAL regions qualifying to universities. In addition, our study attempted to find out whether HELB had any special considerations for students from ASAL areas at the universities. Besides,
using an open-ended questionnaire administered to the Chief Executive of HELB, the study explored alternative financing strategies that could act as interventions to increase the number of students from ASAL regions.

**ix) Policy-Makers/Development Practitioners:**

Policy-makers/development practitioners in this study were those individuals and groups in charge of education in ASAL regions and those who worked with the ASAL communities in terms of formulating education policies and monitoring the effect of those policies among these communities. The study targeted 6 policy makers/practitioners as guided by the Ministry of State for Development of Northern Kenya and other Arid Lands. This category of respondents was purposively sampled by virtue of being engaged in education and development work in ASAL regions of Kenya. The policy makers identified were those at the Education Desk at the Ministry of Northern Kenya and other Arid Lands. Two practitioners were identified with the assistance of the policy maker at Education Desk. The practitioners were those engaged with the ASAL communities at the grass root level in terms of education and community development. These respondents singled out barriers of access among students from ASAL regions to universities in Kenya and proposed the nature of affirmative policies that could widen access. Information obtained from these respondents was relevant to objectives three and four of this study (Section 1.6).
The types of respondents, sampling procedures and size are summarized in Table 3.1:

**Table 3.1 Summary of sampled respondents and sampling procedures**

<table>
<thead>
<tr>
<th>Type of respondents</th>
<th>Target population</th>
<th>Sampling procedure</th>
<th>Total sample size</th>
<th>Total number of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students from ASAL regions</td>
<td>550</td>
<td>Convenience, stratified</td>
<td>150</td>
<td>131</td>
</tr>
<tr>
<td>Public universities</td>
<td>7</td>
<td>purposive</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Private universities</td>
<td>23</td>
<td>purposive</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Vice-Chancellors</td>
<td>8</td>
<td>purposive</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Deputy Vice-Chancellors</td>
<td>8</td>
<td>purposive</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Academic Registrars</td>
<td>8</td>
<td>purposive</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Deans of colleges/schools</td>
<td>26</td>
<td>purposive</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Chief Officers at JAB, HELB, CHE</td>
<td>3</td>
<td>purposive</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>University welfare officers: Deans of students</td>
<td>3</td>
<td>purposive</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>University lecturers from ASAL regions</td>
<td>6</td>
<td>purposive</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Policy-makers and development practitioners</td>
<td>6</td>
<td>purposive</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>648</strong></td>
<td></td>
<td><strong>187</strong></td>
<td><strong>154</strong></td>
</tr>
</tbody>
</table>

**3.5 Methods and Procedures for Data Collection**

The entry point to data collection was the analysis of KCSE examination performance and enrolments of students from ASAL regions in the universities as indicated in the JAB records. This information was important in determining the final sample sizes especially for students who responded to the first research objective of the study. The initial survey was to collect data on enrolment and participation trends of students from ASAL regions at both public and private...
universities. Subsequently, survey questionnaires and interviews were administered to sampled respondents. Data on the KCSE performance of students from ASAL districts was also collected and analysed as it formed baseline data of the target students at the universities. These data also assisted in mapping out interventions that could be used to widen access and participation of students from these regions in universities. The source of data was the existing documents on enrolment and participation as provided by KNEC, JAB, HELB, and at the selected universities.

At the respective universities, questionnaires were administered and interviews conducted among the respondents. Data collected was both quantitative and qualitative. The focus was on the contributions of affirmative action as an intervention that could be used to widen access of students from ASAL regions to universities. The researcher conducted interviews while the research assistant did audio recording and administered questionnaires to the respondents.

This study used multiple methods to cross-check information collected from different sources. The following were used to collect data:

a) Self-Administered Questionnaire:

The questionnaire was delivered to the sampled students by the research assistant and it contained both open- and close-ended items. The choice of this tool was
due to the advantages in saving time in administration, confidentiality and capture of variety of data relevant to the study. All these aspects were pertinent in obtaining opinions of the respondents on the subject under study.

The tool was used to obtain information on the educational and socio-economic background, courses pursued by students from ASAL regions, financing, support services, barriers that limited access, participation, retention and success. The data from the questionnaire addressed the research objectives one, two and three that touched on access trends, impact of admission policies and institutional interventions to widen access and participation of students from ASAL regions. The instrument was used because it enabled the researcher to capture data from the selected respondents at three different universities within a relatively short time compared to interviews. The tool was used to capture quantitative data on access and participation trends of students in ASAL and gender affirmative criteria as envisaged in objective one of this study (Section 1.6).

In this study a total of 150 students were given questionnaires but only 131(87%) responded. The numbers of respondents in terms of gender engaged in the study from the districts are tabulated in Table 3.2:
Table 3.2: District of origin of undergraduate students from the arid districts at the universities by gender

<table>
<thead>
<tr>
<th>District</th>
<th>University</th>
<th>Total N=150</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MU N=50</td>
<td>UoN N=50</td>
<td>USIU N=50</td>
<td>MU</td>
<td>UoN</td>
<td>USIU</td>
<td>MU</td>
<td>UoN</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>M</td>
<td>To</td>
<td>F</td>
<td>M</td>
<td>To</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Garissa</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Mandera</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Wajir</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Iisiolo</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Marsabit</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>22</td>
<td>24</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Samburu</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Turkana</td>
<td>2</td>
<td>14</td>
<td>16</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tana River</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tot (%)</td>
<td>14 (30)</td>
<td>35 (70)</td>
<td>49 (86)</td>
<td>6 (14)</td>
<td>38 (86)</td>
<td>44 (86)</td>
<td>12 (31)</td>
<td>26 (69)</td>
</tr>
</tbody>
</table>

b) Documentary Analysis

Documentary analysis focused on recorded statistics on performance in Kenya Certificate of Secondary Examination (KCSE) and admission of students from ASAL regions to universities from which summaries were tabulated to show trends. Documentary analysis was used to capture the access and participation trends of students from ASAL regions at the universities in relation to objective one of this study. The tool was also used to get data from JAB and HELB documents dealing with policies on university admissions and financing. Data
obtained from documentary analysis and reviews was both quantitative (numbers) and qualitative (text). Documentary analysis was done at the survey stage on official documents such as:

i) **The Kenya National Examinations Council (KNEC) Records:** These were a source of statistics on the Kenya Certificate of Secondary Education (KCSE) examination with particular reference to ASAL districts (regions) in Kenya. The researcher mainly focused on the results of 2004 to 2008 for purposes of establishing the general trends in performance and qualification for university admission (grade C+ and above).

ii) **Student Records:** These records included: University admission records at JAB, undergraduate loan applicants from the 8 selected districts at HELB and admissions register at the selected private institution. HELB records were used to establish the loan applications and disbursements of funds to students from ASAL regions. JAB records were a source of data on access and participation trends in degree courses that students from ASAL regions were enrolled in while the CHE records were used to show the total number of admissions and degree programmes at the universities.
c) Open-ended Interviews

Open-ended interviews are instruments used in qualitative studies to collect primary data. The instrument is used to explore deep perceptions and attitudes about certain phenomena by the interviewer as the central instrument of investigation (Gray, 2010). The interviews were used in this study due to their flexibility, adaptability and variation in structure. Open-ended interviews were used because the instrument allowed for probing of credible in-depth responses to complement quantitative data captured in the questionnaires, documentary analysis and focus group discussions. The instrument was used to obtain opinions and facts concerning enrolment and participation of students from ASAL regions in university education. Data obtained was in form of field notes and transcripts.

Key respondents comprised:

i) University Administrators: The university administrators included the following: Deputy Vice-chancellors/Registrars (Academic) and Deans of Schools. Open-ended interview was used to obtain data on admission policy and how it affected students from ASAL regions in Kenyan universities. Information was also sought on how universities could broaden access and participation of students from ASAL regions. Data collected from these respondents was vital in terms of policy interventions that were espoused in objectives three and four of this study (Section 1.6).
ii) Chief Executive Officer at HELB: Open-ended interview was used to obtain data from the Chief Executive Officer on prevailing policy of awarding loans/scholarships to students from ASAL regions. The CEO also provided information on the policy of giving loans to students from poor regions of the country. Similarly, data was sought on the challenges that students from ASAL regions face in securing loans and proposed how these challenges could be overcome. The responses from the CEO were relevant to objectives one and two of this study (Section 1.6).

iii) Secretary to Joint Admissions Board (JAB): The Secretary to the Board was interviewed on affirmative policies for students from ASAL regions, how the policies could be improved and the limitations of embracing widening access policies. Data obtained from the JAB Secretary was vital in relation to objectives one, two and three of this study (Section 1.6).

iv) Chief Executive Officer at Commission for Higher Education (CHE): The Chief Executive was to be interviewed on interventions that would widen access of students from ASAL regions to universities in relation to objective four of this study. However, he did not respond to the open-ended interview but facilitated for data on student enrolments.
v) **University Lecturers from ASAL Regions:** Three lecturers (2 males and 1 female) were interviewed on barriers to access and participation of students from ASAL regions in universities. In addition, these respondents provided data on institutional interventions that could be implemented to address the barriers faced by these students prior to admission and while at universities. They were also interviewed on modalities to assist students from ASAL regions access university education in terms of enrolment, financial support and successful completion. Data from these respondents was vital in relation to objectives two and three of this study which touched on the influence of admission and interventions to increase access.

vi) **Student Welfare Officers:** Three officers were interviewed on welfare matters like mentoring, finance, accommodation and food in relation to students from ASAL regions. Data obtained from these respondents was a response to access and retention policies as indicated in objective three of this study.

vii) **Policy-Makers/Development Practitioners:** In this category, one policy maker and two development practitioners were interviewed on barriers to access and participation of students from ASAL regions in universities. The interview was on modalities to assist these students in terms of enrolment and financial support. The data from the respondents was on access and participation interventions as per objectives three and four of this study.
d) Focus Group Discussions (FGDs)

Focus group discussions are non-structured face-to-face interviews in a selected group moderated by the interviewer guided by a predetermined interview schedule. The instrument has the advantage of allowing for a variety of opinions to emerge and can also stimulate new perspectives which may not be captured in self-administered questionnaire or semi-structured interviews. The instrument was used to obtain in-depth data which cut across the objectives of the study in terms of access trends, impact of existing admission policies, institutional interventions to increase access and recommendations on how policies could be implemented. In this regard, the tool was used to triangulate data collected from other instruments. The instrument was useful in terms of its flexibility and probity in discussions which illuminated group opinions and norms. The FGDs were used to probe pertinent aspects of access and barriers to university education for students from ASAL regions. Discussions were guided by the researcher and an assistant using an interview schedule. The discussions were audio recorded by the research assistant as the researcher took field notes. Audio recording was done by the research assistant to complement field notes taken by the researcher. Data generated from the FGDs complemented data from other tools used above (documentary analysis, questionnaires and interviews).

The FGDs were conducted among undergraduate students from ASAL regions at the three selected universities. Three different groups were selected to represent
the three universities; one group for each university selected in three different days. The informants were assembled in a room at the respective institutions from where the discussions were guided by the researcher using the interview guide. Each session took between one hour to one and half hours. To avoid bias and increase representation, the informants were selected based on the year of study at the university and district of origin. Majority (85%) of the informants at the selected universities were between the second and fourth year of study. To ensure gender equity, at least a third was female and this reflected the respondents in the questionnaire (Table 3.2).

### 3.6 Validity and Reliability

This study used multiple methods of data collection so as to enhance the validity and reliability. Validity refers to the extent to which an instrument accurately measures what it is supposed to measure (Golafshani, 2003). To guard against the internal and external scientific validity limitations levelled against qualitative methods that limit the generalization of data obtained, a careful design of instruments was done with the assistance of the researcher, experts and supervisors. To increase on validity threat, pre-testing and standardization of the instruments was done to enhance content validity. Consequently, in February 2010, Kenyatta University was randomly selected for the pilot study. This was done to detect any weaknesses with the tools so as to allow for necessary corrective measures in the capture of data as espoused in the research objectives.
Internal validity was taken care of by use of multiple methods of data that included: interviews, documentary analysis, questionnaire, and use of different data.

Reliability is the consistency of an instrument to elicit the same results at different times. This was strengthened by using simple quantitative statistical analytical tools like frequencies and percentages as a means of enhancing the credibility of the results obtained through qualitative techniques like questionnaires and interviews (Baumgarter, Strong and Hensley, 2002). The credibility of the instruments was enhanced by training two research assistants who were used to administer questionnaires and FGDs.

3.7 Variables

The research variables for this study were identified as both independent and dependent. Independent variables refer to those items that can be used to explain the outcome of a certain phenomenon, while dependent variables are those that can be observed and measured to determine an aspect of the independent variables (Glasow, 2005, p.7).

The independent variables in this study included: barriers to access like poverty, low participation in basic education, inadequate education infrastructures and rigid admission policies. The dependent variable was the increased access trends
of students from ASAL regions to universities. These trends included increased number of students at the universities especially in the professional courses, positive values and increased completion rates as a consequence of applying an intervening variable in form of affirmative interventions. This study was conceptualized in the context that students from ASAL regions faced a number of disadvantages (independent variable) in accessing university education which called for affirmative interventions to widen access (dependent variable).

3.8 Data Collection Procedures

Data was collected by following a systematic procedure as specified below:

i. A research permit was obtained from Ministry of Higher Education, Science and Technology (National Council of Science and Technology).

ii. A literature search was done to familiarize with the research topic before engaging in field work.

iii. Development and preparation of research instruments was done.

iv. The research instruments were reviewed to eliminate errors and possible challenges.

v. The instruments were piloted in one public university in Nairobi to improve effectiveness of the tools in collecting the required data.

vi. The actual data collection was conducted at intervals in the selected institutions for a period of three months.
3.9 Data Analysis and Reporting

Data analysis and reporting was guided by the research questions of the study. Tentative analysis of data collected from documentary analysis, questionnaires and interviews was done to establish admission trends of students admitted on affirmative action to universities in terms of degree programmes. Data obtained from documentary analysis was on access and admission policies on affirmative action while data from questionnaires and interviews mainly focused on interventions and policy recommendations to widening access and participation of students from ASAL regions.

Data collected for this study was both quantitative and qualitative. The quantitative aspect involved scrutiny of existing datasets at the universities, for example enrolment of students from ASAL regions on affirmative criteria as done by JAB. The quantitative data was checked for quality control before processing. The data was subjected to a pre-processing stage to correct problems identified in raw data. It was then coded in a data code book to facilitate entry into computer data-entry sheet so as to identify a coding system. The sheets were keyed into Statistical Package for Social Sciences (SPSS) software package, which was useful in both qualitative and quantitative data. Simple statistical tools like frequencies and percentages were used in data reporting in tabular form. Quantitative data captured in the documentary analysis and questionnaire was presented using Tables so as to establish trends as outlined in the research
questions of the study. This data was presented using basic descriptive statistics in form of Tables to show number of students from ASAL regions who met the minimum qualifications and those that were admitted in the target years (2004-2009) in terms of degree programmes.

Qualitative data from open-ended interviews, focus group discussions and questionnaires generated textual data that was analyzed through thematic analysis - a process starting from the development of analytic categories, filtering the data into the various units and finally qualitatively synthesizing and reporting the data both in text and in Tables based on the objectives of the study. Qualitative data was collected to explore the reasons behind the admission trends of these students and to get recommendations on how policy interventions could be translated into practice. Responses from questionnaires and interviews were constantly compared to identify similarities, differences, and general patterns captured in quantitative data in terms of Tables. Emerging themes were gradually analyzed by making logical associations with the research questions, and considering what was learned during the initial review of the literature. Reporting of qualitative data was verbatim and contextual.

Simple descriptive analysis was used for qualitative data. The data was first converted to a write-up using predetermined coding categories which were related to the research questions (section 1.6.1). This data was used in thematic
descriptive analysis based on the research questions. The processing and analysis of qualitative data was done in the following steps: coding and classification of various responses, identifying key responses for various themes, listing and tallying key responses by specific themes, identifying patterns emerging from key responses and reaching conclusions. The analysed data was presented using statistical techniques in terms of frequency distribution.

3.10 Logistical and Ethical Considerations

Procedurally, the researcher applied and obtained written research permit and authorization from the National Council of Science and Technology (NCST) to conduct research at the selected sites. After getting the permit and authorization, the researcher applied for permission to conduct research at UoN, MU, USIU, JAB, CHE and HELB. The authorities at the universities and the three agencies granted access for the researcher to administer questionnaires and interviews to the administrators, lecturers, students and other staff. The researcher fully explained to the sampled respondents the purpose of the study and assured them of confidentiality. Voluntary participation was emphasized to the respondents and hence each of them was given an opportunity to participate or to opt out. Only the research team knew the identity of the participants.
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction:

This Chapter presents data analysis and discussion related to access and participation of students from ASAL regions to universities in Kenya. The findings of this study are analysed, interpreted and related to the relevant existing literature. The Chapter is divided into four parts. Part One presents background information and profile of students from ASAL regions at the target universities so as to contextualize the study. In this part, a brief reference is made to secondary schooling in the ASAL regions of Kenya because it is a transition point to higher education and therefore the quality of its provision largely explains access and participation trends to the universities. In the subsequent parts, the salient themes as envisaged in the three objectives of the study are presented and discussed.

Part Two presents data on educational access trends for students from ASAL regions to universities in Kenya. Data was derived from secondary and policy documents. The admission trends were analysed as presented in the JAB admission records of the selected years (1994 to 2011). Part Three examines contributions of AA and access trends of students from ASAL regions to universities in Kenya. Part Four presents perceptions on interventions to widen
access as suggested by the respondents in the questionnaire and interviews. The data presented is related to the three research objectives that the study sought to address as shown in Chapter One (Section 1.3). These objectives were to:

a) Establish the trends in access to universities by students from ASAL regions in Kenya.

b) Establish the contribution that AA has made towards increasing access of students from ASAL regions to universities and academic programmes in Kenya.

c) Explore institutional policies and programmes that could increase access, retention and success of students from ASAL communities in the institutions.

4.1 Profile of Students from ASAL Regions at the target Universities

The ASAL regions in Kenya entail North Eastern, Coast, Eastern and Rift Valley. The respondents who involved in this study were selected from 8 arid districts in the ASAL districts at the three target universities (Moi University, University of Nairobi and United States International University). The arid districts are: Garissa, Mandera, Wajir, Isiolo, Marsabit, Samburu, Turkana and Tana River. These are the districts that have benefited from ASAL affirmative criteria since the inception in 1989. In the colonial period meagre resources were invested in the ASAL regions because economic returns were deemed to be insignificant (Chege, 1983, p.3). The colonial government in Kenya controlled the movement
of ASAL communities in the NFD and the Maasai (Dadacha, 2009). Such restriction meant that the provision of social services in the stated regions was impeded compared to the high potential regions. In this context, the provision of education among the ASAL communities in the colonial period faced constraints that included pastoral mobility, population densities, herding practices and labour demands. It was against this background that the government attempted to provide schooling using affirmative policy interventions.

This study sought to profile students from ASAL regions accessing universities in terms of parents’ level of education and sources of income. It captured this data from a self-administered questionnaire given to 131 selected students. The profile was done so as to explore the socio-economic background of the target students. As shown in the conceptual framework (Figure 1.1), due to high relative poverty levels, interventions in form of financial aid facilitated for access to education at secondary and university level.

The profiles of the students who responded to the questionnaire were presented in terms of parents’ level of education and sources of income. Details are shown in Table 4.1:
Table 4.1: Profile of students from ASAL districts accessing universities as indicated by parents’ source of income by university

<table>
<thead>
<tr>
<th>University</th>
<th>Parents’ level of Education</th>
<th>Parents’ source of income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-formal (%)</td>
<td>Some prim. (%)</td>
</tr>
<tr>
<td>MU(n=49)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>26(54)</td>
<td>11(22)</td>
</tr>
<tr>
<td>UoN(n=44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>27(61)</td>
<td>7(16)</td>
</tr>
<tr>
<td>USIU(n=38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16(42)</td>
<td>4(11)</td>
</tr>
<tr>
<td>TOT(n=131)</td>
<td>69(53)</td>
<td>22(17)</td>
</tr>
</tbody>
</table>

Responses from Table 4.1 as captured from the questionnaire administered to the respondents at the three universities indicated that the parents’ highest level of education was non-formal education (53%) while the main source of income was the keeping of livestock (41%). The students’ responses on the parents’ highest level of education corroborated the findings from the population census conducted in 2009 which indicated that the percentage of population with secondary education from the arid districts ranged from 3.5% to 9.7% as compared to the national average of 12.7% (Republic of Kenya, 2010). The low level of formal education in the ASAL regions was also attributed to failure of the colonialists and missionaries to provide education due to reasons of convenience, climatic conditions and colonial economic interests (Chege, 1983, p.3). Overall, meagre
resources invested in the ASAL regions affected economic returns which would have been invested in education.

The analysis presented in Table 4.1 shows that majority of the respondents’ parents had non-formal education and mainly relied on livestock. This implied that these people were vulnerable in terms of getting sustainable incomes for the schooling of their children at all levels of education and more so at university level where expenditure was higher. This tended to be the case due to the vulnerability of livestock keeping during extreme weather in most months of the year. These findings (Table 4.1) also indicated that ASAL communities still experienced low levels of literacy. For example, as of 2008 arid districts of North Eastern had 32% of its population literate compared to average national rate of 61.5% (Republic of Kenya, 2010). In terms of sources of income, most of the parents depended on keeping of livestock and business associated with livestock. However, not all the parents whose source of income was from keeping livestock were necessarily poor and in this case the low literacy levels among parents could be a limitation due to little value attached to formal education in ASAL communities. In good seasons the income generated from the keeping of livestock was substantial and could be used to invest in other sources of income. This was supported by a study done by Sifuna (2005) which indicated that inadequate income had a salient barrier to access and participation in education especially in higher education.
This study also captured data on the type of secondary schools that were attended by students from the selected ASAL districts. The schools were categorized into National, Provincial, District and Private. The type of secondary schools attended was cross tabulated with the course of study. Details are tabulated in Table 4.2:

Table 4.2: Students’ responses on the type of school attended and course of study enrolled by university

<table>
<thead>
<tr>
<th>University</th>
<th>Tot (%)</th>
<th>Type of school attended (%)</th>
<th>Course of study (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>National</td>
<td>Provincial</td>
</tr>
<tr>
<td>MU</td>
<td>49</td>
<td>7(14)</td>
<td>28(57)</td>
</tr>
<tr>
<td>UoN</td>
<td>44</td>
<td>9(20)</td>
<td>27(61)</td>
</tr>
<tr>
<td>USIU</td>
<td>38</td>
<td>8(21)</td>
<td>12(31)</td>
</tr>
<tr>
<td>Total (%)</td>
<td>131</td>
<td>24(18)</td>
<td>67(51)</td>
</tr>
</tbody>
</table>

From Table 4.2, in terms of percentages, respondents indicated that most students at the three universities attended Provincial Schools (51%) and that majority (57%) were enrolled in Arts related courses. This would indicate that majority of the respondents attended Provincial Schools which nationally provided majority of the students at the universities due to better performance in the national examinations. While Provincial Schools from agricultural areas may have been better equipped, those from ASAL regions suffered from inadequate financing and trained teaching staff and this affected performance in the national
examinations which determined transition to university. In terms of course of study, on average, majority of the respondents enrolled in Arts courses. This implied that the students’ performance in subjects that were core to enrolment in professional courses remained a challenge just like it was in most schools in the country. This was more critical in ASAL regions (Republic of Kenya, 2010).

In conclusion, the picture that emerges is that most students who responded to the questionnaire were from parents who had non-formal education and depended on the keeping of livestock as their main source of income. Most of the respondents attended provincial secondary schools whose education was mainly financed by their parents. Therefore, since the poverty levels in the ASAL districts were high, it would appear that government was yet to direct more funds in form of bursaries and scholarships to students from these districts. This implied that the cost of basic education remained a challenge to these students as funding was inadequate leading to some cases of dropout. It is in this context the Government was expected to increase funding for these disadvantaged students. This was in line with the recommendations made by studies that had been done in the ASAL regions which called for investment in the education for the students from ASAL communities in Kenya (Ruto, Ongwenyi and Mugo, 2009).
4.2 Access Trends for Students from ASAL Regions to Universities in Kenya

Access trends for students from ASAL regions to universities in Kenya can be traced back to the colonial times. The concerns of unequal access to university education by communities from ASAL regions compared to the high potential regions were live in both the formal and informal settings. By the end of 1970s, the educational inequalities at university level experienced by the ASAL communities among other things were captured in the participation rates at the University of Nairobi (UoN). The participation rates for students at secondary school level in Kenya since the 1960s indicated that high potential regions of the country had a higher participation than those from ASAL regions. For example, in 1974 indicative data from the ASAL region of North Eastern obtained at the UoN showed that no single student was admitted in that year but this improved to 0.5% in 1983. This could be attributed to low enrolment at the four government aided secondary schools in the region which prepared students for university education. The schools also lacked physical and learning facilities, factors critical to the performance in the national examinations which determined transition to university. Details of national participation at the UoN are shown in Table 4.3:
Table 4.3: Participation of undergraduates by Province in 1974 and 1983 at UoN

<table>
<thead>
<tr>
<th>Province</th>
<th>1974 (%)</th>
<th>1983 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Population</td>
<td>University representation</td>
</tr>
<tr>
<td>Central</td>
<td>14.5</td>
<td>20.6</td>
</tr>
<tr>
<td>Coast</td>
<td>8.5</td>
<td>2.4</td>
</tr>
<tr>
<td>Eastern</td>
<td>17.6</td>
<td>17.6</td>
</tr>
<tr>
<td>Nairobi</td>
<td>6.2</td>
<td>20.8</td>
</tr>
<tr>
<td>North Eastern</td>
<td>1.7</td>
<td>0</td>
</tr>
<tr>
<td>Nyanza</td>
<td>16.4</td>
<td>14.4</td>
</tr>
<tr>
<td>Rift Valley</td>
<td>23.2</td>
<td>13.1</td>
</tr>
<tr>
<td>Western</td>
<td>11.9</td>
<td>11.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100.4</strong></td>
</tr>
</tbody>
</table>

Source: Office of the Registrar (Academic) University of Nairobi (UoN)

Table 4.3 shows that in the year 1974 and 1983, participation of undergraduate students at UoN in relation to the population index was favourable to Central and Eastern Provinces. For example, in 1974, while Central and Eastern had population of 14.53% and 17.57% respectively, their representation at the UoN was more than the population index; Central had 20.6% and Eastern 17.6%.
Compared to North Eastern for the same year, the population index was 1.73% but in terms of university representation, it had zero. Similarly, in the same period Coast had population index of 8.53 but university representation of 2.4. Equally underrepresented was Rift Valley whose population in 1974 was 23.23% of the national but had 13.1% participation at UoN. In 1983, Central’s representation at UoN had increased from 20.8 to 28.10 despite the population increasing from 14.53% in 1974 to 15.30% in 1983. Compared to North Eastern, it increased from 0 to 0.5%: an increase less than the population index which increased from 1.73% in 1974 to 2.40% in 1983. A similar trend was reflected in Coast and Rift Valley where university participation was lower than population index. The indicative data showed that Central Province participation index at the UoN was more than the population index in the two years compared to North Eastern which was under-represented at the university. It was this under-representation that resulted into seeking for ways to redress the discrepancy. This was approached through the adoption of AA. Consequently, the need to have special admission criteria for students from disadvantaged regions emerged from University of Nairobi (UoN) Admissions Board, not from the government. It was this past under-representation that contributed to seeking for ways at the university to redress the disadvantage and this was approached through the adoption of AA.

The developments of affirmative interventions were mooted so as to correct inadequate access to educational opportunities that arose out of longstanding
historical, economic, political, climatic, cultural and structural barriers to certain
groups of people in the colonial and post-colonial periods. In this context, it was thought that adoption of AA would increase the number of students from these regions to public universities in a manner that could substantially contribute to their socio-economic development. However, the ASAL regions like the greater NFD had fewer secondary schools established due to socio-cultural and financial constraints. The Ominde Commission (Republic of Kenya, 1965) took cognizance of these disadvantages and proposed the expansion of educational facilities for those regions that had been educationally disadvantaged in a move to catch up with other regions that were educationally advantaged in terms of access and participation. It is in this context that affirmative action was to be adopted to increase access to secondary school and university.

The affirmative criteria for students from disadvantaged districts (ASAL regions) to public universities were done by lowering the cut-off points so that the students could be admitted at two levels: one, basic university entry and two, to competitive (professional) courses. Details of the number that benefited between 1994 and 1999 are shown in Table 4.4:
Table 4.4: JAB ASAL affirmative admission trends of undergraduate students from ASAL regions to public universities from 1994 to 1999

<table>
<thead>
<tr>
<th>Year of KCSE</th>
<th>National KCSE Total Entry</th>
<th>Number scored C+ and above nationally</th>
<th>Total admitted nationally</th>
<th>Number admitted on ASAL AA</th>
<th>% admitted ASAL AA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>173,792</td>
<td>30,666</td>
<td>8,899</td>
<td>62</td>
<td>0.7</td>
</tr>
<tr>
<td>1998</td>
<td>169,357</td>
<td>30,243</td>
<td>8,150</td>
<td>59</td>
<td>0.8</td>
</tr>
<tr>
<td>1997</td>
<td>156,591</td>
<td>31,295</td>
<td>9,017</td>
<td>54</td>
<td>0.6</td>
</tr>
<tr>
<td>1996</td>
<td>155,022</td>
<td>28,119</td>
<td>8,428</td>
<td>24</td>
<td>0.3</td>
</tr>
<tr>
<td>1995</td>
<td>142,013</td>
<td>21,900</td>
<td>7,953</td>
<td>30</td>
<td>0.4</td>
</tr>
<tr>
<td>1994</td>
<td>143,162</td>
<td>23,122</td>
<td>8,649</td>
<td>32</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Joint Admissions Board (JAB) records, 1997 and 2010

The Table shows that the percentage admission trends of students on ASAL affirmative criteria were as follows: in 1994 and 1995, 0.4%; 1996, 0.3%; 1997, 0.6%; 1998, 0.8% and 1999, 0.7%. Overall, in a period of six years, the percentages indicate that students admitted on affirmative criteria was erratic, lowest of 0.3% in 1996 to the highest of 0.8% in 1998 and average of 0.5%. Similarly, the percentages of the students admitted through ASAL affirmative criteria between 1994 and 1999 were far below the stipulated percentage of ‘not more than 5%’ (JAB, 1997).
While Table 4.4 shows the number of students admitted on ASAL affirmative criteria almost doubled from 32 in 1994 to 62 in 1999, in terms of percentages there is no single year within that period that it was more than 0.8%. For example in 1999, even if it was assumed that the number that qualified through JAB direct admission was the same as those who got admission through AA, still the highest percentage could have been 1.3% (124).

4.3 Contributions of AA and Admission Trends of Students from ASAL Regions to Universities in Kenya

Admission to universities in Kenya has been done through the use of merit, quota and AA. The merit criteria have been the dominant mode on the assumption that students are exposed to similar educational conditions. However, quota and AA were introduced for students from disadvantaged communities because of experiencing inadequate provision of educational infrastructure compared to those students from wealthier socio-economic backgrounds. The use of quota and AA in admitting disadvantaged students to universities was meant to increase equitable access which could not be realized if merit was the only criteria for admission. At university level, affirmative policies for students from ASAL regions have been used since 1989 alongside the merit criteria.

Affirmative action for disadvantaged regions was adopted in 1989 due to the low number of students who were admitted to University of Nairobi (UoN) between
1974 and 1984. Affirmative criteria for ASAL regions otherwise known as Special Admission Criteria for Disadvantaged Districts (ASAL regions), was established in early 1989 at UoN by the Admissions Board (Gichaga Report). The establishment of The Gichaga Sub-Committee was an acknowledgement that access of students from disadvantaged districts to the university was low compared to high potential districts of Kenya.

Since the inception of the affirmative criteria in 1989 (Gichaga Report), there have been four reviews done by JAB Sub-Committees (JAB, 1995-2005) in the following years: 1995 (Karani I), 1997 (Karani II), 2001 (Ogot) and 2005 (Kaimenyi). The reviews were done for three major reasons:

a) To determine the opportunity index for disadvantaged districts in a bid to identify and exclude those districts those had improved and include those that had not in terms of the degree of aridity.

b) To determine the cut-off points the ASAL affirmative criteria could use to university basic entry and professional courses.

c) To establish the actual representation of the students from disadvantaged districts in the professional courses.

The Kaimenyi Report of 2005 reviewed the number of disadvantaged districts and increased them from 15 to 35 but classified into ‘Pure Arid’ and ‘Semi-Arid’. The increase of the disadvantaged districts was based on the extent of aridity, rainfall
patterns, temperatures, humidity, overall agricultural production of the area, evaporation and soil types (JAB, 2005, pp.10-11). The Kaimenyi Committee increased the number of the districts to benefit from the ASAL affirmative admission criterion due to the low level of participation at secondary school level and access to universities in spite of the use of AA in the previous fifteen years.

The Kaimenyi Report reviewed the previous JAB Sub-Committees (1989-2001) and found that the percentage of students who benefited from the ‘special admission from disadvantaged districts’ had not exceeded the set ceiling of ‘not more than 5%’. For example, analysis presented in the Kaimenyi Report on the admission of students on ASAL affirmative criteria combined with gender indicated that in 1998 it was 4.5% (370) of the total number selected to the public universities and this dropped to 4% (448) in 2002 (JAB Report, 2005, p.12). It was on this basis that the Kaimenyi Report called for strategies to increase the number of candidates from ASAL regions joining universities and competitive degree courses by improving educational facilities and continued use of ASAL affirmative criterion by lowering the cut-off points depending on the degree of aridity. Kaimenyi Report made the following recommendations on AA:

a) That classification of A.S.A.L. districts as given in the government circular be adopted:
   i) Pure Arid- Tana River, Marsabit, Moyale, Isiolo, Mandera, Wajir, Garissa, Ijara, Turkana.
   Semi-Arid- Kwale, Kilifi, Lamu, Taita Taveta, Machakos, Kitui, Mwingi, Makueni, Mbeere, Tharaka, Nyeri (Kieni), Laikipia, Samburu, West Pokot, Kajiado, Narok, Baringo, Koibatek, Keiyo and Marakwet.
ii) That the following six districts which were classified as semi-arid in section 7 of this report be included and considered as Semi-Arid: Meru North, Malindi, Rachuonyo, Suba, Kuria, Thika.

b) That for districts classified as Pure Arid the Joint Admissions Board considers the following:
   i) Lowering the admission cut-off points by between 1-5 points below the set cut-off points.
   ii) Lowering the degree weighted cluster points by between 1-3 points.

c) That for districts classified as Semi-Arid the Joint Admissions Board considers the following:
   i) Lowering the admission cut-off points by between 1-3 points below the set cut-off points.
   ii) Lowering the degree weighted cluster points by between 1-3 points.

d) That the lowering of the general cut-off points be applied when the number of candidates admitted from the A.S.A.L. areas is less than 10% of the total number of candidates admitted to the public universities in any year (JAB, 2005, p.16).

Analysis was done on the documented JAB admission trends of students from ASAL regions in the period 2004-2009 in terms of access to universities in an attempt to establish the impact of the recommendations of the Kaimenyi Report and the previous Reports. It was also important to find out whether recent government interventions like bursary schemes, construction of boarding schools and Free Day Secondary Education (FDSE) had any qualitative improvements in secondary schools in ASAL regions. For the purpose of this study, the KCSE results of 2004 to 2009 from the 8 arid districts (Garissa, Mandera, Wajir, Isiolo, Marsabit, Samburu, Turkana and Tana River) were extracted from KNEC records and analysed. The KCSE results and ASAL affirmative criteria admission trends
for the corresponding years of candidates from arid districts were used because they have consistently benefited from the AA since its inception. These districts were selected on the basis that the government policy documents classified them as arid and subsequently were adopted by JAB and KNEC. Details of the admissions in the period from 2004 to 2009 are tabulated in Table 4.5:

Table 4.5 JAB admissions on affirmative criteria of undergraduate students from ASAL districts to public Universities from 2004 to 2009

<table>
<thead>
<tr>
<th>Year of KCSE</th>
<th>National Entry</th>
<th>Arid Entry</th>
<th>Tot. no. scored minimum entry(grade C+ and above)</th>
<th>AA COP for Arid</th>
<th>Tot. admissi on &amp; %</th>
<th>Total JAB direct qualified Arid regions (%)</th>
<th>AA on ASAL adm. by lowering basic COP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>337,405</td>
<td>5068</td>
<td>81,082</td>
<td>705 (3)</td>
<td>63 B</td>
<td>24,216 (30)</td>
<td>64(0.2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>67(0.3)</td>
</tr>
<tr>
<td>2008</td>
<td>304,995</td>
<td>4922</td>
<td>72,590</td>
<td>601 (3)</td>
<td>65 B</td>
<td>20,073 (28)</td>
<td>113(0.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>66(0.4)</td>
</tr>
<tr>
<td>2007</td>
<td>276,193</td>
<td>4136</td>
<td>74,299</td>
<td>1128 (7)</td>
<td>66 B</td>
<td>16,629 (22)</td>
<td>125(0.7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>105(0.7)</td>
</tr>
<tr>
<td>2006</td>
<td>243,318</td>
<td>3770</td>
<td>62,853</td>
<td>868 (5)</td>
<td>65 B</td>
<td>16,151 (26)</td>
<td>137(0.8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>107(0.7)</td>
</tr>
<tr>
<td>2005</td>
<td>260,643</td>
<td>3681</td>
<td>68,040</td>
<td>645 (5)</td>
<td>67 B+</td>
<td>12,479 (18)</td>
<td>126(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26(0.2)</td>
</tr>
<tr>
<td>2004</td>
<td>222,519</td>
<td>3348</td>
<td>58,239</td>
<td>520 (5)</td>
<td>67 B+</td>
<td>10,632 (18)</td>
<td>97(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>34(0.3)</td>
</tr>
<tr>
<td>Total</td>
<td>1,645,073</td>
<td>24,925</td>
<td>417,103</td>
<td>4467 (4)</td>
<td>65</td>
<td>100,180 (24)</td>
<td>662(0.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>405(0.4)</td>
</tr>
</tbody>
</table>

Source: Kenya National Examinations Council (KNEC) and JAB records, 2009-2004

Table 4.5 shows that the candidature in the arid districts increased by 51% from 3348 in 2004 to 5068 in 2009. The percentage of those who scored minimum university entry grade C+ and above in the arid districts decreased from 16% (520)
in 2004 to 14% (705) in 2009. The Table also shows that the percentage of the students from arid districts who qualified for direct university entry decreased from 1% (97) in 2004 to 0.2% (64) in 2009. Hence, the percentages indicate that while the total entry from arid districts increased by about 51%, there was general decrease in percentage in terms of those that met the minimum university entry (grade C+ and above) as per JAB direct and ASAL AA qualification.

The percentage that qualified through JAB direct admission was as follows: 2004-2005, 1%; 2006, 0.8; 2007, 0.7%; 2008, 0.5% and 2009, 0.2%. The admission trend by lowering the overall AA basic cut-off point (COP) was as follows: in 2004, 0.3%; 2005, 0.2%; 2006 and 2007, 0.7%; 2008, 0.4% and 2009, 0.3%. The percentages indicate that those admitted on affirmative criteria between 2004 and 2009 fluctuated between 0.3% and 0.7%. Overall, Table 4.8 shows that on average the percentage admitted through JAB direct qualification was 0.6% while that one on ASAL affirmative was 0.4%. The percentages indicate that students from the arid districts who benefited from the affirmative criteria were less than those who qualified for direct university admission. However, if those who scored the minimum university entry grade C+ and above in the same period could have been admitted the highest percentage admitted could have been as follows: 2004-2006, 5%; 2007, 7%; 2008-2009, 3%. The percentages indicate that even if all the candidates who scored the minimum university entry of grade C+ and above were admitted, the set ceiling of ‘not less than 10%’ could have not been met.
Significant to note is the fact that if all the students who scored grade C+ and above could have been admitted on ASAL affirmative admission, then there could have been significant percentage in terms of widening their access to public universities since the percentages could have been closer to the ceiling of ‘not less than 10%’. Similarly, in a situation where there was a general percentage decrease in JAB direct qualification and on affirmative criteria, it could have been prudent to increase the percentages by having more students admitted as long as they met the minimum university entry through other affirmative modes like bridging courses and lowering cut-off point closer to the minimum university entry.

The admission trends between 1994 and 1999 were compared to the admission trends of students from ASAL regions between 2004 and 2009 to determine the impact of AA. This was done because the criteria for admission were periodically reviewed so as to widen access of students from the disadvantaged districts to the 7 public universities. The ASAL affirmative admission trends in terms of percentages in the period 1994 to 1999 indicate that the range was between 0.3% and 0.8%. Compared to the period 2004 to 2009, it was 0.2% and 0.7% respectively. The percentages are quite similar even when five reviews had been done to widen access of students from disadvantaged districts on the ASAL affirmative criterion.
In spite the fact that the number of public universities and colleges has more than doubled, the percentage of students admitted on ASAL affirmative criteria has almost remained as it was in the first ten years after the adoption of the system. In this regard, whereas the JAB reports stated that the percentage ceilings set were realized analysis done on the data captured in JAB affirmative admissions in the selected years indicate that the percentages admitted were at best less than 1%. This would imply the JAB affirmative admissions set ceilings that they did not achieve. The limited percentage of students from ASAL regions accessing universities in Kenya is not unique to Kenya since review of literature indicated that where affirmative policies are not well implemented, they tend have minimal impact as was the case in Uganda and Tanzania (Morley et al, 2006). In this regard, JAB admission records should be open to public scrutiny so as to have access to the raw data to establish the number of students admitted on AA from the ASAL regions. If the disadvantaged districts are to build the human and social capital envisaged in the Vision 2030 Development Strategy for Northern Kenya and other Arid Lands (Republic of Kenya, 2011), there is a need to widen access to the universities and in professional courses through other forms of AA such as bridging/ remedial courses, scholarship/loan provision among other strategies (Moreau, 2007). In the Kenyan universities this can be adapted for the students from ASAL regions in a bid to increase the percentage admitted.
The study analyzed admission trends to competitive degree courses at public universities through AA for ASAL students in some professional courses offered at the public universities. At the private university there were no such criteria and hence there was no analysis done. The analysis was done in a context where the points to be lowered and the percentage to be admitted had been increased from 1-2 to 1-3 in the Kaimenyi Report of 2005. The analysis focused on twelve competitive programmes in four different academic years, namely 2007/08, 2008/09, 2009/10 and 2010/11. The four years were selected since this was after AA lowering of the weighted cluster (in special programmes) took effect. This was implemented to increase the percentage of those who missed to join professional courses by 1-3 points. Details are presented in Table 4.6:
Table 4.6: Admission to competitive degree programmes at public universities through Affirmative Criteria for 2007/08, 2008/09, 2009/10 and 2010/11 academic years

<table>
<thead>
<tr>
<th>Competitive Degree Programmes</th>
<th>2007/08 Academic Year</th>
<th>2008/09 Academic Year</th>
<th>2009/10 Academic Year</th>
<th>2010/11 Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tot</td>
<td>ASAL AA</td>
<td>Tot</td>
<td>ASAL AA</td>
</tr>
<tr>
<td>BSc (Eng - Civil, Elect, Mech., Software, Geospatial)</td>
<td>522</td>
<td>5 (0.95)</td>
<td>795</td>
<td>0</td>
</tr>
<tr>
<td>BSc (Actuarial Science)</td>
<td>104</td>
<td>0</td>
<td>73</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor of Arch. Studies</td>
<td>35</td>
<td>0</td>
<td>63</td>
<td>0</td>
</tr>
<tr>
<td>BSc (Computer Science)</td>
<td>248</td>
<td>4 (1.61)</td>
<td>336</td>
<td>0</td>
</tr>
<tr>
<td>BSc (Nursing)</td>
<td>56</td>
<td>1 (1.78)</td>
<td>74</td>
<td>0</td>
</tr>
<tr>
<td>Bach of Medicine &amp; Surgery</td>
<td>209</td>
<td>7 (3.34)</td>
<td>165</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor of Dental Surgery</td>
<td>31</td>
<td>0</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor of Pharmacy</td>
<td>50</td>
<td>0</td>
<td>51</td>
<td>0</td>
</tr>
<tr>
<td>Bach of Veterinary Medicine</td>
<td>87</td>
<td>2 (2.29)</td>
<td>92</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor of Education (Science)</td>
<td>995</td>
<td>6 (0.60)</td>
<td>917</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor of Commerce (Bcom)</td>
<td>973</td>
<td>5 (0.51)</td>
<td>132</td>
<td>1 (0.45)</td>
</tr>
<tr>
<td>Bachelor of Law (LLB)</td>
<td>204</td>
<td>2 (0.98)</td>
<td>252</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>351</td>
<td>4 (0.91)</td>
<td>416</td>
<td>1 (0.14)</td>
</tr>
</tbody>
</table>

Source: JAB Admission Records, 2007-2011
The Table shows that in the selected programmes, the percentage of students admitted on the ASAL affirmative criteria of lowering the degree weighted cluster by 1-3 points decreased from 0.91% in 2007/08 academic year to 0.23% in 2010/11 academic year. In the four academic years at all the 7 public universities, on average out of twelve programmes, significant representation was registered in the following six degree programmes: Medicine and Surgery, 1.7%; Veterinary Medicine, 1.5%; Nursing, 1.1%; Computer Science, 0.5%; Law, 0.5% and Bcom 0.4%. In the intervening period no student was admitted to Architectural Studies, Dental Surgery and Pharmacy on ASAL affirmative criteria. Data presented in Table 4.9 above indicates that the use of ASAL affirmative criteria to professional programmes had not improved the percentage of students admitted from ASAL regions but rather decreased. For example, in 2007/08 academic year 3.34% of students in Medicine and Surgery were admitted on ASAL criteria but this significantly decreased to 0.38% in 2010/11 academic year. A similar trend was recorded in programmes like Nursing and Law. However, Veterinary Medicine maintained an average of 2% although there were no beneficiaries in 2008/09 Academic Year. It is only Bachelor of Commerce (BCom) that recorded beneficiaries in all the four academic years. The details presented in Table 4.6 above are summarised in Table 4.7:
Table 4.7: Summary of undergraduates from ASAL districts admitted to professional courses at Public Universities through AA for the academic years 2007/08 - 2010/11

<table>
<thead>
<tr>
<th>Professional/Competitive Degree Programmes</th>
<th>Total admission 2007/08 - 2010/11</th>
<th>Admitted on ASAL AA (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Medicine &amp; Surgery</td>
<td>842</td>
<td>14 (1.7)</td>
</tr>
<tr>
<td>Bachelor of Veterinary Medicine</td>
<td>345</td>
<td>5 (1.5)</td>
</tr>
<tr>
<td>Bsc (Nursing)</td>
<td>322</td>
<td>2 (0.7)</td>
</tr>
<tr>
<td>Bsc(Computer Science)</td>
<td>1368</td>
<td>5 (0.4)</td>
</tr>
<tr>
<td>Bachelor of Commerce</td>
<td>4532</td>
<td>18 (0.4)</td>
</tr>
<tr>
<td>Bachelor of Law (LLB)</td>
<td>1033</td>
<td>4 (0.4)</td>
</tr>
<tr>
<td>BSc (Eng. - Civil, Electr., Mech., Software)</td>
<td>3634</td>
<td>8 (0.3)</td>
</tr>
<tr>
<td>Bachelor of Education (Science)</td>
<td>3555</td>
<td>11 (0.3)</td>
</tr>
<tr>
<td>Bsc (Actuarial Science)</td>
<td>586</td>
<td>1 (0.2)</td>
</tr>
<tr>
<td>Bachelor of Dental Surgery</td>
<td>99</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor of Pharmacy</td>
<td>265</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor of Architectural Studies</td>
<td>220</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5702</strong></td>
<td><strong>68 (1.2)</strong></td>
</tr>
</tbody>
</table>

Source: JAB Admission Records, 2007-2011

The summary in the Table shows that in the four academic years, the degree programmes that benefited most of the students from ASAL by lowering weighted cluster were Medicine and Surgery by 1.7% and Veterinary Medicine by 1.5% of the total admissions. The least were Dental Surgery, Pharmacy and Architectural studies which recorded 0%. Analysis of the responses from the questionnaire given indicated majority (57%) were enrolled in Arts related courses (Table 4.2). This implied that AA for students from ASAL regions to professional courses was yet to significantly improve.
The admission trends to professional courses in the selected period (2007/08 - 2010/11) showed that in most programmes the students met the cut-off point except in Actuarial Science, Dental Surgery and Pharmacy (Table 4.7 above). However, due to the rigidity of JAB affirmative criteria, a majority of deserving students from the ASAL regions who met the university cut-off point could not be admitted. This implied that the AA would not have had significant impact in the ASAL regions as intended in ASAL policy if a flexible mode was not applied. Alternatively, other affirmative admission policies like pre-entry and bridging courses could be used like it is the practice in other universities in some parts of Africa such as UDSM in Tanzania (Kapinga, 2010).

Table 4.7 indicates low percentage of students from ASAL regions who had access and participation in the professional courses at the public universities in spite of the use of ASAL affirmative admission criteria. The fact that most provincial and district high schools gave a higher number of admissions to students from local communities meant that students from ASAL regions may have accessed schools not well resourced and thereby compromised their chances of meeting the set qualification for university admission and into professional courses. This was evident from the government policies on the provision of education which indicated that ASAL regions have continued to be disadvantaged in terms of resources due to lack of sustainable policies (Republic of Kenya, 2010). However, it is significant to note that in the period 2004 and 2009 the
percentage that was admitted through AA was less than the one that met the minimum university admission requirements of grade C+ and above.

This study sought to find out the factors that contributed to lower performance for students from ASAL regions which in turn affected admission to basic university entry and professional courses. The 131 respondents from the questionnaires at the three universities selected for this study gave five main factors: poor quality of education, harsh climatic conditions and cultural practices. Details are presented in Table 4.8:

**Table 4.8: Factors that contributed to low performance of students from ASAL regions**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequencies (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MU (n=49)</td>
</tr>
<tr>
<td>Poor quality education</td>
<td>40(74)</td>
</tr>
<tr>
<td>Harsh climatic conditions</td>
<td>8(15)</td>
</tr>
<tr>
<td>Cultural practices</td>
<td>6(11)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54(100)</strong></td>
</tr>
</tbody>
</table>

Students’ responses from the Table were as follows: poor quality of education: UoN, 80%; MU, 74% and USIU 47%; harsh climatic conditions: USIU, 45%; MU, 15% and UoN, 11%; cultural practices: MU, 11%; UoN, 9% and USIU 8%. The responses in terms of percentages (68%) showed that at all the three
universities on average, it was the quality of education that contributed most in determining which student from ASAL regions qualified for university entry and professional courses. This finding supported findings of a study done by Ruto, Ongwenyi and Mugo (2009) in the ASAL regions of Kenya.

The responses from the students at the two public universities show that majority (80%) felt that poor quality of education contributed significantly to poor performance in national examinations which in turn led to the failure to meet the both the COP for basic university entry and professional courses as set by JAB. Compared to the private university (USIU), it was 47%. Hence, Table 4.8 above indicates that from the students’ responses the main constraint for those from the ASAL districts joining professional courses was due to poor quality of education. This was attributed to lack of facilities like science equipment, books and qualified teachers. This finding confirms what was reported in the Kenyan policy document (Republic of Kenya, 2004).

The administrators interviewed were also in agreement that failure for students from ASAL regions to meet the set COP was due to attending secondary schools that were not adequately equipped both in terms of teachers and infrastructures leading to poor performance in examinations. This assertion was supported by remarks that were made by a university administrator at UoN during an interview session with the researcher as follows:

As a Secretary to JAB, I have been approached by some MPs from North Eastern who wanted that students from this region be given
special places at the public universities. I told them that we can only stick to what is provided by ASAL affirmative admission criteria and the MPs did not like that. Then they asked me for the best alternative to increase the number of students from their areas to the universities. I told them that the problem of poor performance in the national exams (KCSE) was due to poor quality of education provided in their areas. I proposed to them to improve on the quality of schools in terms of teaching and learning facilities, physical facilities and identify committed teachers. I told them that they can identify two schools in each district, one for girls and the other for boys. Then the issue of funding arose. I told them to use CDF, LATF and other sources so that they could come up with schools like Starehe Boys and Girls. We agreed and they left. A few months later we got in touch and I was surprised that the MPs failed to agree on the location of the proposed schools! The problem was the clan politics and not the money to build the schools. That is how the quality of education can be affected...

(Male Administrator, Academic Registrar, UoN).

The above respondent acknowledged that students from ASAL regions attended schools that had inadequate learning and teaching facilities. This affected the performance in the national examinations which were used to select students for further education and professional courses. However, the same respondent could not admit the need to make the AA less rigid so as to admit those who scored the minimum university entry point. Indeed, the cut-off point set by JAB on ASAL affirmative criteria (grade B) was above the threshold of those who scored the minimum university entry grade C+ and above. Hence, most of the candidates who basically qualified for university admission were left out.
In FGD with students, some factors were mentioned as being contributors to their failure to qualify for university courses. From the FGDs conducted at the three universities, the one at MU captured the limitations as follows:

Students (ASAL) miss many things compared to our fellow students from other parts of Kenya... we would wish to join professional degree courses but we are incapacitated as in the lack of role facilities and models. In fact, the cut-off point is not within reach... it is as if nobody takes into account the schools we went through. Some of our parents do not understand... there is also the problem of insufficient information or even misinformation about courses like engineering and computer to the extent that one feels inadequate. Then the issue of low quality education offered at secondary school... some of us did not have what you can call a laboratory... besides after Form IV parents expect you to get married especially if you are a lady. When a lady from ASAL areas is at university, there is a lot doubt that she will get spoiled... wish if these things could dealt with much earlier! (Male, Student FGD, at MU).

The failure to meet the COP was also attributed to the kind of motivation that the students from ASAL districts got while at secondary schools. Analysis of a self-administered questionnaire to the students from the selected districts at the three universities indicated that motivation for university education emanated from three levels, namely self-motivation, guidance and career choices by teachers, mentoring by teachers and fellow students. Details are shown in Table 4.9:
The responses from the students at the three universities in Table 4.9 indicate that self-motivation was the major impetus for university education. They were as follows: UoN, 61%; USIU, 54% and MU, 56%. Responses to guidance and career choices by teachers were as follows: UoN, 21%; USIU, 21% and MU, 12%. Responses from students with regard to mentoring by teachers were as follows: USIU, 9%; MU, 5% and UoN, 4%. Fellow students were also indicated as a source of motivation for university education. The responses were as follows: both MU and UoN had 4% and USIU had 0%. The ‘no’ responses were as follows: at USIU, 24%; MU, 22% and UoN, 10%. The above Table shows that self-motivation ranked at the top with regard to university education at the three universities. However, the fact that the guidance and career choice by teachers
was reported to be an average of 16% indicated that students were not adequately prepared for university professional courses. Indeed, it was the teachers who were expected to be a reliable source of information for the students to make informed choices. Similarly, the ‘no’ responses had an average of 19% (UoN, 10%; MU 22% and USIU, 24%) and this would implied that such students were ill prepared for university education and professional courses.

At the selected private university, USIU, the AA action took the form of funding two students who were the best performers in KCSE from their districts of origin in a given year and who had met the COP for the course selected in every academic year since 2009. But the funding of the students did not cover the travel, accommodation and pocket money. The tuition fee paid by the university was not disclosed to the researcher. Out of 4,771 students admitted at USIU by 2012, only six (0.1%) had benefitted from ASAL affirmative funding (USIU Admissions Records, 2012). Inadequate funding as shown in a study done by Kwesiga and Ahikire (2006), resulted into lack of interest and dropout of students from disadvantaged communities in the professional courses. Consequently, JAB failed to meet the ceilings it set and yet reported that to the contrary. This meant that the ASAL affirmative criterion could not meet ceilings it was meant to achieve and thus could not alleviate disadvantage. Similarly, the increasing or reducing of the number of districts to benefit made the application of the criterion unpredictable.
especially when the percentage of students from these regions admitted was minimal in professional courses.

4.4 Institutional Interventions and Policy Practices to Widen Access of Students from ASAL Regions to Universities

This study sought to explore institutional interventions and how the suggested policies could be translated into practices that could widen access and participation of students from ASAL districts in Kenya. Studies reviewed in other parts of the world indicated that affirmative interventions like bridging/remedial courses, lowering of cut-off point provision among other strategies at institutional level had been implemented to increase access of the disadvantaged to universities but with varying degree of success (Scott, 2009). In this regard, the study explored whether universities provided welfare support as a form of intervention for the upkeep of students from ASAL regions. Welfare support referred to assistance given by the institution to students who were disadvantaged so as to supplement the financial position and academic success.

Open-ended interviews were conducted to the policy makers, education practitioners and lecturers to obtain information on interventions to widen access to universities for students from ASAL districts. The policy makers and education practitioners targeted were those who dealt with matters of policy and practice of education in ASAL regions of Kenya. The researcher interviewed one policy
maker at the Ministry of State for Development of Northern Kenya and Other Arid Lands (MSDNKAL) and two education practitioners in North Eastern. The policy maker at the Ministry of State for Development of Northern Kenya and Other Arid Lands (MSDNKAL) selected for the interview was in charge of the policy formulation at ministry in charge of the Education Desk for the ASAL regions.

4.4.1 Perceptions on Interventions to Widen Access of Students from ASAL Regions to Universities

Students’ responses from the questionnaires indicated that welfare institutional interventions were given to those considered disadvantaged but there was no welfare support which targeted students from ASAL districts at the institutions. Details of students’ responses are tabulated in Table 4.10:
Table 4.10: Students’ responses to the welfare and support services offered at university to aid academic progress of disadvantaged students

<table>
<thead>
<tr>
<th>University</th>
<th>Responses to the welfare support programmes (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>MU</td>
<td>1 (2)</td>
<td>42 (86)</td>
</tr>
<tr>
<td>UoN</td>
<td>3 (7)</td>
<td>41 (93)</td>
</tr>
<tr>
<td>USIU</td>
<td>4 (11)</td>
<td>34 (89)</td>
</tr>
<tr>
<td>Total</td>
<td>8 (6)</td>
<td>117 (89)</td>
</tr>
</tbody>
</table>

The Table indicates that majority of the respondents (89%) were of the opinion that the universities did not offer welfare support programmes to the disadvantaged students. However, a minority of 6% indicated that the institutions gave the support. This finding supported other studies done in Sub-Saharan countries where the support programmes had minimally benefited the disadvantaged students due to unpredictability of the programmes, declining finances, lack of representation in policy making forums and lack of inclusive education and scholarship (Altbach, Reisberg and Rumbley, 2009). Welfare interventions were meant to enhance retention and completion at the university courses without which chances of success would be reduced. However, even when it was shown in the literature review that support programmes for the disadvantaged at university level would increase access and participation, the
institutions are yet to fully embrace such strategies for purposes of social equity as was indicated in a study done in Australia (Gale et al., 2010).

From the FGDs at USIU, the respondents were in agreement that the university did assist some of the disadvantaged students not necessarily from ASAL regions. The sentiments were as follows:

One of the main assistance the university (USIU) is a work study programme where the students (disadvantaged) is given a job in university then 25% of the fees is paid...but no 100% tuition is offered. There is no specific consideration for students from ASAL areas...but one can apply and be considered just like any other student... Bright students with good grades also benefit if they participate in the Work Study Programme (Female Student, FGDs, USIU).

The sentiment expressed above shows that the institution did offer some welfare support in form of financial aid. However, the support given was minimal since it covered only 25% of the welfare support. The limited use of the welfare intervention at the university implied that disadvantaged students could not be optimally assisted to complete their studies. Yet, where financial support was adequately used, retention and completion of the disadvantaged at university increased. This was evident in a study conducted in Canada where the financial support among Indigenous people in 2005 increased the enrolment from 20 to 80% at post-secondary level (Canadian Millennium Scholarship Foundation, 2006).
Through interviews conducted by the researcher at the universities, what emerged from the welfare officers was captured at UoN as follows:

The university gives some assistance to needy students admitted... in form of bursary and transport... the university does not base this on the region or district of origin... it is on the need as expressed by the student. May be in future it might be considered for students from ASAL areas... (Male Welfare Officer, UoN).

The welfare support programmes given to the students from ASAL regions at the institutions are mainly in form of bursary but minimal. Lack of adequate financial support to such students as shown in the literature review and conceptual framework affects participation and completion. In some instances it contributes to dropout.

Due to minimal financial support from the universities targeting students from ASAL regions, this study found that the students mainly got financial support from HELB in form of loans. The loans were divided into four categories depending on the degree of need: Ksh. 35,000; Ksh. 40,000; Ksh. 42,000 to 45,000 and Ksh. 50,000 to 60,000 (HELB Records, 2012). The applicants that came from the lowest socio-economic background got a maximum of Kshs. 60,000 each while the less needy got Kshs. 35,000 each per year. However, at the public universities, the students from ASAL regions did not have special consideration in terms of funding from HELB.
Analysis of the JAB admitted students’ applications for loans from HELB between 2004/05 to 2008/09 academic years indicated that in that period almost all the loan applicants from the selected 8 arid districts got four different categories of loans offered by HELB. Details are summarised in Table 4.11:

Table 4.11: Number of JAB undergraduate students from arid regions at public universities awarded HELB loans from 2004/05 to 2008/2009 Academic years

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Total Loan Applicants</th>
<th>Loan categories and amount in Kenya shillings (Ksh.) awarded (%)</th>
<th>Number awarded (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>35,000</td>
<td>40,000</td>
</tr>
<tr>
<td>2008/09</td>
<td>557</td>
<td>105(19)</td>
<td>54(10)</td>
</tr>
<tr>
<td>2007/08</td>
<td>476</td>
<td>58(12)</td>
<td>66(14)</td>
</tr>
<tr>
<td>2006/07</td>
<td>461</td>
<td>63(14)</td>
<td>65(14)</td>
</tr>
<tr>
<td>2005/06</td>
<td>391</td>
<td>56(14)</td>
<td>62(16)</td>
</tr>
<tr>
<td>2004/05</td>
<td>385</td>
<td>173(45)</td>
<td>51(13)</td>
</tr>
</tbody>
</table>

Source: HELB Records 2004-2009

Table 4.11 indicates that in all the academic years except in the 2004/05 academic year more than 70% of the loan applicants got Ksh. 42,000 and above. This would imply that most applicants were considered to come from low socio-economic status that needed adequate financial support.

The students from ASAL districts felt that the funding provided by HELB was inadequate. Their views were as follows:

The amount given from HELB caters for fees but not other expenses like books, food, travel expenses... how can a student from Mandera or Lamu be given a similar amount to a student who comes from say Kisumu or Nakuru who spends less to be in MU? It is unfair! HELB needs to make the criteria of awarding loans fair by taking into account other aspects like distance and cost of pursuing a given course, say Medicine. Back at home one cannot get enough bursary from CDF... politicians perceive university students from the constituency as a threat.... It is not easy... even the
bursary from HELB, where one gets a maximum of Kshs. 8,000 per year, there is no guarantee... the funding from HELB should take the affirmative action approach for students from ASAL areas.  
*Male Student FGDs, MU*

In the open-ended interviews with the lecturers from ASAL districts conducted by the researcher, sentiments similar to those expressed above in the focus group discussions (FGDs) were registered regarding the inadequate funding from HELB. One of the lecturers said:

The affirmative action that is used to admit students from ASAL districts/regions should be extended to the awarding of HELB loans and bursaries. These loans are given without considering the unique economic conditions… Poverty levels are high... in fact in Turkana where I come from it is over …Remember once a student from this region has been given this loan it has to be shared with the parents, siblings and other relatives because it is the only money at that time. So the money may not be enough to meet other costs like fare, food and accommodation. There are times when I have to assist some though few, money buy food…accommodation! (Male Lecturer, Turkana District).

While the students and lecturers from ASAL regions who participated in the FGDs and interviews felt that the funding from HELB was inadequate, the views captured from the interview with the administrator at HELB were as follows:

The funding given to students who apply for loans from HELB is done through Means-Testing based on the assessment of the parents’ income and occupation. We do not have a special criterion for students from ASAL areas of the country. Yes, loans given are not based on the degree pursued...whether professional, science or arts. The loan awarded to a student from these areas is based on the information given in the loan application form and we trust that... it is expected that the loan given can meet the cost of tuition, living expenses, books, stationery and pocket money. However, when the loan is not enough, we give bursaries to ASAL students especially during disasters like drought, famine and floods. May be in future when the funds are sufficient, consideration will be done to assist (Male Administrator, HELB).
Responses from the open-ended interviews of students, lecturers and administrator indicated that the funding in form of loans from HELB was insufficient. This was because it did not take into account other pertinent costs like travel, living expenses and pocket money which were critical in terms of retention and completion at the universities. Indeed, as shown by a study done by O’hara (2010) when disadvantaged students do not get adequate financial support at university level, the chances of accessing university and competitive courses are diminished. This was in agreement with a study done by Kapur and Crowley (2008) in South Africa where the funding provided to the disadvantaged students was insufficient and this contributed to a 45% drop-out rate because loans and bursaries given did not cover the full costs of study, living and other costs (South African Higher Education: Facts and Figures, 2009).

4.5.2 Perceptions on Interventions to Widen Access of Students from ASAL Regions to Universities and Professional Courses

Students’ responses on institutional interventions to widen access indicated that there was lack of welfare support at university level for students from ASAL districts. Subsequently, the respondents gave various suggestions that they would wish the institutions to put in place so as to widen access of students from ASAL districts to universities and professional courses. These suggestions were: financial support, bursary, affirmative action (AA), career awareness, work study programmes and forming associations for students from ASAL districts.

The responses from the students are shown in Table 4.12:
Table 4.12: Existing welfare support programmes at universities for the disadvantaged and suggestions for support services for students from ASAL districts

<table>
<thead>
<tr>
<th>University</th>
<th>Frequencies of responses to welfare support services</th>
<th>Suggestions for support of ASAL students (%)</th>
<th>Tot</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disadvantaged (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MU (n=49)</td>
<td>28 (49)</td>
<td>10 (18)</td>
<td>15 (26)</td>
</tr>
<tr>
<td>UoN (n=44)</td>
<td>26 (57)</td>
<td>5 (11)</td>
<td>15 (32)</td>
</tr>
<tr>
<td>USIU (n=38)</td>
<td>23 (55)</td>
<td>8 (19)</td>
<td>11 (26)</td>
</tr>
<tr>
<td>Tot (n=131)</td>
<td>77 (53)</td>
<td>23 (16)</td>
<td>41 (28)</td>
</tr>
</tbody>
</table>

The responses to the different types of support given to the disadvantaged as reported by the students from ASAL districts were as follows: Bursary: UoN, 57%; USIU, 55% and MU, 49%; part-time work: USIU, 19%; MU, 18% and UoN, 11%; transport: UoN, 32%; MU and USIU, 26% each; special accommodation: MU, 7%; UoN and USIU, 0% each. The responses in percentages indicated that the support given was financial in form of bursaries (53%), transport (28%) and part-time work (16%).
From Table 4.12, the respondents indicated that financial and bursary supports were considered critical. The responses of students from the three universities were as follows: financial at USIU, 45%; MU, 40% and UoN, 30%; bursary at MU, 21%; UoN, 20% and USIU, 18%; AA at MU, 19%; UoN, 17% and USIU, 5%. More than 50% of the respondents suggested that they needed financial support from the universities specifically meant for students from ASAL districts. Other suggestions from the respondents were: career awareness, work study programmes and formation of associations to cater for the interests of students from ASAL districts (Table 4.12).

The responses from the FGDs were in support of the above as indicated in Table 4.12. The respondents indicated that the interventions that they considered to be crucial in widening access of students from ASAL districts to universities included: funding, AA, career awareness and improvement of learning and teaching facilities. This was captured in one of the FGDs as follows:

There are about four important aspects that can increase access and participation to universities. On the top is funding in form of bursaries/scholarships which assists in the costs of food, accommodation, travel, books and other expenses like pocket money. On admission, the present affirmative criteria is still out of reach to most students from ASAL areas who score below the cut off point of grade, eeh B. Other things are those that include creating awareness before coming to university, improve teaching facilities and increase the number of trained teachers at secondary schools. Even parents need to be sensitized...especially on university education so that they can change attitude and assist financially like paying fees... (FGDs, UoN and USIU).
Lack of welfare support programmes, especially financial aid to students from ASAL districts was found to be one of the major causes of drop-out among students from ASAL districts admitted to professional courses. In FGDs at UoN, it emerged that one of the students in the discussion would recall of a case where a student admitted to a professional course dropped out due to lack of sufficient funding from HELB and could not get financial support from the university. The sentiments were:

I remember of a male student from Turkana where I come from, who had been admitted in Civil Engineering here at UoN. The student qualified for a loan from HELB and whatever amount was given, the student paid full fees for the academic year but whatever remained could not enable the student to meet other expenses like accommodation, food, transport and other personal expenses. It is like the student didn’t have an alternative source...so the student left the university to join army... There could be others...in fact the loan we get from HELB cannot sustain a student the whole academic year… HELB only releases a half the amount you qualify for but the university expects you to pay full fees at the beginning of the academic year....about Kshs. 28,000 and if you got a maximum of Kshs. 60,000 you can only get half the amount which goes to fees and the balance too little… (Male, FGD at UoN).

The sentiments expressed above would suggest that the funding that students from ASAL districts got from HELB may not have sustained one especially those in professional courses where cost for other items like laboratory equipment was a prerequisite in the learning process. These sentiments corroborated findings of a study conducted in some African universities which found that financial aid was critical so as to improve on the gender, regional and socio-economic imbalances in terms of participation in the professional courses (Lee, 2009). Indeed, in the
literature review a study done in Canada espoused the need to give financial support to the disadvantaged for purposes of participation and completion (Canadian Millennium Scholarship Foundation, 2006).

In our study, students at the three universities were asked to propose means through which access of students from ASAL districts to universities could be increased. The respondents proposed the following: increase resources both in primary and secondary schools, affirmative action, establishment of universities in ASAL districts, scholarships, creation of awareness, provision of adequate trained teachers, construction of National Schools in ASAL districts, bursary, fees reduction in secondary schools, bridging courses for university entry, increase funding at HELB and offering of relevant curriculum. Details are presented in Table 4.13:
Table 4.13: Students’ responses to ways in which universities could increase the number of students from ASAL districts accessing universities in Kenya

<table>
<thead>
<tr>
<th>Suggestions</th>
<th>Frequencies of the respondents by university (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MU(n=49)</td>
</tr>
<tr>
<td>Increase resources in schools</td>
<td>17(27)</td>
</tr>
<tr>
<td>Affirmative Action (AA)</td>
<td>11 (18)</td>
</tr>
<tr>
<td>Establish universities in ASAL districts</td>
<td>11 (18)</td>
</tr>
<tr>
<td>Scholarships</td>
<td>3 (5)</td>
</tr>
<tr>
<td>Create awareness</td>
<td>6 (10)</td>
</tr>
<tr>
<td>Provide adequate trained teachers</td>
<td>4 (7)</td>
</tr>
<tr>
<td>Build National schools in ASAL districts</td>
<td>1 (2)</td>
</tr>
<tr>
<td>Bursary</td>
<td>3 (5)</td>
</tr>
<tr>
<td>Fees reduction at secondary school</td>
<td>3 (5)</td>
</tr>
<tr>
<td>Bridging courses for university entry</td>
<td>0</td>
</tr>
<tr>
<td>Increase funding at HELB</td>
<td>2 (3)</td>
</tr>
<tr>
<td>Offer relevant curriculum</td>
<td>1 (2)</td>
</tr>
<tr>
<td><strong>Total frequencies</strong></td>
<td><strong>62</strong></td>
</tr>
</tbody>
</table>

Students’ responses in the Table in terms of percentages were as follows: increase of resources at schools (primary and secondary): USIU, 34%; MU, 27% and UoN, 22%; affirmative action: USIU, 30%; UoN, 27% and MU, 18%; establishment of universities in ASAL regions: MU, 18%; UoN, 8% and USIU,
7%; scholarships: USIU, 16%; UoN, 8% and MU, 5%; provision of adequate trained teachers: UoN, 10%; MU, 7% and USIU, 0%.

Table 4.13 shows that the three major suggestions proposed were: increase of resources in schools (primary and secondary) (28%), affirmative action (24%) and establishment of universities in the ASAL regions (12%). This implied that majority of the respondents were aware that the low performance in the national examinations contributed to the low number of students from ASAL districts who qualified for university.

This study sought to find out from the university administrators whether universities had policy mechanisms to widen access and participation of students from ASAL regions. At the selected public universities, the administrators indicated that they had set up satellite campuses in some of the ASAL regions. At MU and UoN the administrators elaborated how this had been done:

As part of university policy, we ensure that the university programmes are taken closer to the ASAL communities through strategic opening of Satellite Campuses (e.g. UoN at Lokichogio, MU at Garissa). This takes into account specific courses critical to ASAL students. We ensure that those already admitted and want requests for specific courses are given the opportunity through inter-school transfers to their suitable programmes (Male Administrators, Deans, MU and UoN).

At the private university (USIU), the administrator at the Admissions Office proposed the establishment of universities in the ASAL regions so as to take care
of the needs of students from these communities. The views expressed were as follows:

ASAL regions should have their own universities to cater for unique interests of these people as pastoralists. The distance to where universities are located mainly in the big urban centres can be a limitation. Costs involved in the travelling, food, accommodation and other things may be prohibitive. Culturally, the university setting outside the ASAL areas may not be welcoming as a minority group. If a university was set up in the ASAL areas, some of these obstacles may be addressed (Male Administrator, admissions, USI).

At the two public universities, administrators were interviewed on the interventions that universities could put in place to increase the number of students accessing universities. They gave the following proposal: use AA by lowering the admission points, quota system and specific scholarships for students from ASAL regions, establish a revolving fund, locate universities in the ASAL regions and create awareness on university education. At the UoN, one of the administrators in charge of academics and admissions at JAB, during an interview, remarked:

Universities can only do affirmative action. The right place for effective progress of ASAL students would be to come up with proper and up to standard primary schools and high standard secondary schools. This can be done both in the short and long term because we do not expect affirmative action to be there forever. Remember there are other disadvantaged groups who will require affirmative action as things change! (Male, Administrator, UoN/JAB).

The position taken by this administrator was in support of the responses by students in Table 4.13 where AA and improvement in the quality of schools and
teaching were rated highly as means through which the number of students accessing university education and professional courses could be improved. However, one administrator at MU proposed other interventions on the aspect of widening access and participation of students from ASAL regions. These interventions were: quota system and scholarships for students from ASAL regions. The interviewee expressed the following:

Affirmative action has been used for students from ASAL areas but it has not sufficiently addressed the admission needs. I propose that quota system be used at university level in specific courses in the professional ones...the way it is done in the admission of Form One in secondary schools. I also propose for the creation of ASAL student scholarships. Indeed, in my School (Human Resource and Management) we have the Dean’s scholarship awarded to some needy cases from ASAL regions. The scholarship is awarded by the Dean’s Committee. We also assist in establishing an Endowment Fund for students from ASAL regions like now we have one for students from Baringo…(Male Administrator, Dean, MU).

Other administrators at the public universities selected for this study suggested that to widen access and participation of students from ASAL districts, there was need to improve on the existing affirmative criteria. In this regard, one of the administrators stated:

The affirmative action for these students (ASAL) can still be lowered farther so as to admit those who score even B minus... since this will still be above C plus the minimum entry to university... this can be done because those who are able to pay for the parallel programmes are admitted as long as they meet the minimum requirements. I suggest that the cut off point for these students could be lowered so as to have more students from these areas as the quality of secondary schools in these areas is being addressed (Male Administrator, Dean, UoN).
The interventions that have been put in place by individual universities remain insufficient with regard to students from ASAL regions. The welfare support services in place at the universities are not specific to the students from ASAL regions. Universities are yet to have specific affirmative admission criteria for students from these regions. Even the existing affirmative action has not had a significant increase in the percentage of students admitted. In terms of funding, there is no affirmative criterion for those students from ASAL districts admitted at the public universities. The one at USIU caters only for two students annually from ASAL districts and does not include living expenses. It came into effect in 2009.

The need to have interventions to widen access to universities was also captured by the response that the policy-maker at the Ministry of State for Development of Northern Kenya and Other Arid Lands (MSDNKOAL). He acknowledged that ASAL districts faced barriers that made the provision of education a challenge. These barriers included: inadequate schools, distance to schools especially at nursery and primary schools, pastoralism which engaged child labour, inadequate locally trained teachers, early marriages and lack of policy support from the government. Due to these challenges, the policy maker made the following proposals during the interview:

These areas are faced with numerous problems that affect educational access and participation. Problems start right from
Early Childhood and Development Education (ECDE) to primary and then secondary. In all these levels, barriers of distance to schools, child labour because of the movement in search of pasture, negative attitude of parents towards formal education, insufficient qualified teachers and poor policy on pastoralism and education. In all these problems and others not mentioned, government policy remains inadequate. The policy makers do not seem to understand these communities and it is on this basis that I would propose that for effective policy formulation and implementation, there is a need to involve the local people from these areas. This is important especially in the recruitment of local teachers to training colleges... it can be done through affirmative action. Other considerations could be in terms of providing bursaries in an affirmative manner so as to meet fees costs especially in secondary boarding schools. There is also a need to direct more investment to ASAL areas in a bid to reduce high poverty levels experienced by majority living in the rural areas (Interview: Male Policy Maker at MSDNKOAL).

The above comments corroborate what was shown in the conceptual framework in terms of the barriers faced by disadvantaged students especially those from ASAL regions. The policy interventions proposed by the above respondent would indicate that the quality of education offered to students from ASAL regions remained a major obstacle to good performance in the national examinations.

Responses from the educational practitioners in North Eastern indicated that to widen access of students from ASAL districts to universities the focus should be on interventions that address the poverty levels among the ASAL communities. For example, the poverty levels in arid districts was estimated to range from highest of 94% in Turkana and the lowest of 49% in Garissa compared to Kiambu district with 27% (Commission for Revenue Allocation, 2011). These poverty
levels affect the quality of education provided right from early childhood, primary
and secondary school levels. The proposals of the practitioners were as follows:

To have more students from arid and semi-arid lands joining universities calls for many approaches that should start by improving the investment levels in these areas to enable parents to meet the cost of education right from pre-school to secondary. Policy makers also should be keen on implementing them so that the poor people among these people benefit... like the funding of schools through CDF and bursaries... sometimes the poor do not benefit. To increase numbers to universities, scholarships for students from the poor homes could assist especially those who do not qualify to meet the set cut off points but meet the minimum grade (C+). Universities can also create awareness by engaging the local students at the universities and even visit schools and have talks which can motivate others (Male Education Practitioner, North Eastern, Generation for Change and Growth).

Three lecturers (1 female and 2 male) were interviewed with regard to interventions to widen access. The proposals from them were in agreement that to increase the number of students from ASAL districts to universities, there was need to have interventions that would include financing, employment and lowering of the cut-off points. The responses were:

In the ASAL areas, most people experience high poverty levels and this affects the payment of fees right from primary to secondary school. When some students from these areas qualify for university admission, there is a challenge of financing students beyond secondary school level due to costs of travel, food and accommodation. It is important that universities supplement what parents give and the loan from HELB. Universities can give special scholarships/bursaries to these students... otherwise some students who qualify for university opt to get employment in the police force where a job is assured... others even leave university before completion to look for jobs so as to assist themselves and parents! (Male Lecturer, ASAL District).
The lecturers put emphasis on the aspect of financing students from ASAL districts at the universities. The feeling was that AA should be applied when awarding scholarships and bursaries. For example:

I really don’t know what universities can do... but universities can give bursaries and scholarships to assist these students once admitted. Sometimes these students are unable to pay for accommodation and food. Here universities can assist to avoid poor attendance due to the search for elusive money... sometimes these students drop out of campus due to failure to raise money for basic necessities even after HELB has paid for the tuition. ...these students fear taking loans from banks and even if they were to apply, they lack security. It is that bad! (Male Lecturer, ASAL District, Samburu).

A female lecturer from ASAL district had this to say on interventions for students from ASAL:

The interventions can be in the form of creating awareness so that these students can identify the courses that they may wish join and what they expect upon completion. There is need to give these students special accommodation in the halls of residence, especially female students who may not be able to get alternative accommodation. Lowering of the cut off point below what is in place would also increase the numbers of students from these areas...location of the universities in the ASAL regions would also assist in terms of cutting down costs. Universities can employ staff from ASAL communities so as to act as role models (Female Lecturer, ASAL District).

Responses of lecturers indicate that to increase the numbers of students from ASAL districts to universities, interventions that focus on financial assistance are critical in a bid to address the poverty levels amongst majority of the ASAL communities. Other interventions call for AA, creation of awareness in terms of
careers, accommodation at the universities and employment of staff from ASAL regions at the universities.

The respondents were asked in the questionnaire to suggest ways in which universities could increase the number of students from the ASAL regions joining university programmes and professional courses. The responses were as indicated in Table 4.14:

Table 4.14: Students’ responses to means by which the number of students from ASAL regions can be increased to university and professional courses

<table>
<thead>
<tr>
<th>Means</th>
<th>Frequencies (%)</th>
<th>MU (n=49)</th>
<th>UoN(n=44)</th>
<th>USIU (n=38)</th>
<th>Tot (n=131)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affirmative action (AA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>79 (53)</td>
</tr>
<tr>
<td>Enhanced resource allocation</td>
<td></td>
<td>9 (30)</td>
<td>8 (27)</td>
<td>13 (43)</td>
<td>30 (20)</td>
</tr>
<tr>
<td>Improved infrastructures</td>
<td></td>
<td>3 (27)</td>
<td>5 (46)</td>
<td>3 (27)</td>
<td>11 (7.5)</td>
</tr>
<tr>
<td>Creation of awareness</td>
<td></td>
<td>5 (46)</td>
<td>4 (36)</td>
<td>2 (18)</td>
<td>11 (7.5)</td>
</tr>
<tr>
<td>No response</td>
<td></td>
<td>4 (24)</td>
<td>6 (35)</td>
<td>7 (41)</td>
<td>17 (12)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>57 (39)</td>
<td>49 (33)</td>
<td>42 (28)</td>
<td>148(100)</td>
</tr>
</tbody>
</table>
The Table shows that the respondents from the three universities felt that to increase the number of students from ASAL regions in the university programmes and professional courses, the following means were suggested: i) affirmative action ii) enhanced resource allocation iii) improved infrastructure and, iv) creation of awareness. Analysis of responses from students at the universities was as follows: affirmative action (AA): MU, 45%; UoN, 33% and USIU 22% giving an average of 53%. The responses showed that AA was supported by majority of the respondents at the two public universities perhaps due to the fact that they were beneficiaries unlike at the private university (USIU). As for the enhanced resource allocation at USIU, 43%; MU, 30% and UoN, 27% giving an average of 20%. Students’ responses to improved infrastructures were: UoN, 46%; MU and USIU both had 27%; an average of 7.5%. The high responses on the aspect of improved infrastructures at the UoN could imply that the resources allocated were insufficient compared to the demand and the number of professional courses offered. Responses to creation of awareness: at MU, 46%; UoN, 36% and USIU, 18%. ‘No responses’ were: USIU, 41%; UoN, 35% and MU 24% giving an average of 12%. The higher number of ‘no response’ from the respondents at USIU could be due to the low number of professional courses offered at the private university.

In Table 4.13, the respondents indicated that the failure to meet the COP for professional courses was because, as currently applied by JAB, it was above the
threshold for university admission. The respondents wanted the cut-off point to be lowered further. This corroborated one of the findings reported in the JAB sub-Committee which concluded that decline in the number of students applying to public universities was due to high overall and specific degrees cut-off points (JAB, 2010, p.13). Indeed, if public universities lowered the COP below grade B closer to the threshold of C+ which is the minimum university entry as shown in Table 4.5 more students from ASAL regions were likely to qualify. The lowering of COP by the public universities would benefit more students since those admitted through Module II do benefit as long as they have attained grade C+ and above and are able to pay fees.

University administrators were interviewed on the policy mechanisms used to widen access of students from ASAL regions to join professional courses. The administrator at a public university (UoN) said:

The university does career counselling then lets the affected students make a decision. If one is qualified, we allow for Inter-Faculty transfers to professional courses. This is done without necessarily compromising academic standards. The transfers have in most cases benefited the students...I remember a case in the School of Engineering where in a certain academic year a transfer was done for a particular student from ASAL area who had slightly lower grades but managed to graduate successfully...this was a request made by the student accompanied with the father... I cannot remember the district but it was from upper Eastern....(Male Administrator, Academic Registrar, UoN).

The remarks above would indicate that at times some students from ASAL regions should be considered for special admission into professional courses.
However, the policy is used if a request is put to the admissions office which implies that the practice is not explicit.

In summary, responses from majority of the students (89%) at the three universities indicated that disadvantaged students were not offered welfare support services. In this regard, the students and other respondents suggested the need for universities to give financial support in form of bursary and scholarships to students from ASAL districts. Responses from policy-makers, educational practitioners and lecturers from ASAL regions were in agreement that the affected students at the universities undertook their basic education in poverty, went to schools that were not well equipped and that their level of career awareness was generally low. On this basis they proposed that universities could increase the number of these students accessing universities by lowering of cut-off points but not below the minimum university entry and to have universities located in the ASAL districts. Interventions suggested by respondents outside the realm of universities included the formulation of relevant policies that would engage local people and the increase of resources in basic education so as to improve on the performance in the national examinations of these students from the ASAL districts.
4.6 Conclusion

The educational inequalities experienced by ASAL regions have persisted in spite of government policy interventions especially at university and professional courses. Since the adoption of the ASAL affirmative action in 1989, the percentage of students from ASAL regions who have benefited has not fundamentally altered their access and participation both by lowering the basic and degree professional cut-off points. Statistics indicated that AA had been used inconsistently to admit students from ASAL regions such that at times the increase realized in a given year was reduced and vice versa. It was as if at best the percentages had stagnated and had remained low compared to the number that scored the minimum university entry of grade C+ and above. The percentage that was set by JAB which ranged between 5-10% since 1989 had not been achieved, as per this study’s findings. Indeed, the numbers of students admitted were below the set ceiling and yet there was a significant percentage which scored the minimum university entry. This made the ceiling set more of a token than widening access of students intended to benefit from affirmative action. Furthermore, most private universities are yet to embrace AA and where it is practised like at USIU, the number is insignificant. In developed countries, the practice is that both public and private universities have affirmative strategies for the disadvantaged so as to widen access (Scott, 2009). This study proposes that for the affirmative action to have more impact than it currently has, three critical concerns have to be addressed:
a) The funding from the government has to be affirmatively done since the current mode does not have any special consideration for students from ASAL regions.

b) There is need to widen the bracket of admission by 50% of those who do not get admitted through JAB but score grade C+ and above.

c) All those students from ASAL regions admitted through affirmative action should be allowed to join professional degrees of their choice and be retained until successful completion.

If these considerations can be implemented, this will assist to build the social capital of the ASAL communities which can spur socio-economic development in the regions as envisaged in Vision 2030. The need to improve the access and participation of groups of people from ASAL regions is essential for the long-term social and economic integration with other communities.
CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This Chapter presents a summary of the main research findings of the study, conclusions, policy and recommendations for further study. The content is presented according to the research objectives that this study sought to address, namely:

a) To establish the trends in access to universities by students from ASAL regions in Kenya.

b) To establish the contribution that AA has had in increasing access of students from ASAL regions to universities and academic programmes in Kenya.

c) To explore institutional policies and programmes that could increase access, retention and success of students from ASAL communities in the institutions.

5.1 Summary of Main Findings of the Study

The summary of the main findings of this study is based on the field data in relation to the objectives and research questions that we sought to address. The summary is based on the four objectives of the study.
5.1.1 Trends in Access to Universities by Students from ASAL Regions in Kenya

The study found out that trends in access to universities by students from ASAL regions in Kenya were low in spite of the educational policy interventions in basic education. This meant that most of the students who enrolled for the national examinations did not qualify for university admission as set by the Joint Admissions Board annually. In most of the ASAL regions, provision of schools by government was still limited. Also, a mixture of the nature of socio-cultural activities and negative attitude from government policy implementers towards ASAL communities meant that the uptake of formal schooling was still low compared to other regions of the country. Due to high poverty levels that ranged between 49-94% in ASAL regions, parents were unable to meet the cost of maintaining students in boarding secondary schools. In this context, affirmative action (AA) was adopted to redress these disadvantages experienced while undergoing basic education. However, the use of AA did not significantly increase the percentage of students from ASAL regions accessing universities and professional courses. This was due to the rigid manner in which the AA policy was implemented by the universities.

The study established four factors which contributed to the low percentage in admission to universities through AA:
a) The policy kept fluctuating and evidence from the study showed that the university administrators seemed to limit the number of students from the ASAL regions who could benefit from the policy.

b) There was a discrepancy between the percentage to be admitted on AA and the one that was actually realized. For example, in the period between 2009 and 2004, the highest percentage of those admitted on AA was 0.7% and yet the target was 10%. This percentage was less than what it was in the period 1999 to 1994. Hence, admission under AA had always been below the set target.

c) If those who scored the minimum university entry grade C+ and above between 2009 and 2005 could have been admitted under AA, an average 4% of the students from Arid regions could have accessed public universities, a significant increase but still less than the targets set by JAB. Indeed, analysis done on the admission trends to public universities in the period 2009-2004 found that from Arid regions on average 0.6% of the students were admitted through direct qualification while 0.4% was admitted on AA.

d) The manner in which AA was being implemented was not holistic, as it targeted only getting students to universities or degree courses, without addressing the financial component, which was a cause of their underachievement in the first place.
5.1.2 Contributions of AA and Access Trends of Students from ASAL Regions to Universities in Kenya

The rationale for adopting AA for students from ASAL regions was to increase access to universities in Kenya. This was based on two considerations:

a) The low socio-economic development and education participation at all levels.

b) The circumstances beyond the control of the ASAL communities.

The developments of affirmative interventions were mooted so as to correct inadequate access to educational opportunities that arose out of longstanding historical, economic, political, climatic, cultural and structural barriers to certain groups of people in the colonial and post-colonial periods. In this context, it was thought that adoption of AA would increase the number of students from these regions to public universities in a manner that could substantially contribute to their socio-economic development.

The ASAL affirmative admission trends in terms of percentages in the period 1994 to 1999 indicate that the range was between 0.3% and 0.8%. Compared to the period 2004 to 2009, it was 0.2% and 0.7% respectively. The percentages are quite similar even when five reviews had been done to widen access of students from disadvantaged districts on the ASAL affirmative criterion. In spite of all these reviews, the percentage of students admitted on the ASAL criteria did not significantly increase since the percentage admitted as from 2007 decreased from
0.7% to 0.3% in 2009 and remained similar to what it was in the 1990s. This was notwithstanding the fact that students from arid districts who scored the minimum university entry (grade C+ and above) ranged between 3-7% of the total entry in the districts.

Affirmative criteria for students from ASAL regions to the professional courses had not improved the percentage of students admitted. Analysis done on the admission trends indicated a downward trend in spite of the increased target of the number to be admitted through JAB. For example, from 2007/08 to 2010/11 academic year students admitted on the ASAL affirmative criteria to the selected professional courses decreased from 0.91% to 0.23%. However, there was significant representation in Medicine and Surgery (1.7%), Veterinary Medicine (1.5%) and Nursing (1.1%). Minimal or lack of access and participation for students from ASAL regions in these courses implied that those regions will continue to lack the services of such professionals. This poses a challenge since professionals from other parts of the country were unwilling to work in the ASAL regions.

The affirmative policy on basic university entry also failed to meet the set ceiling set by JAB and this meant that the students admitted in a given academic year were below the target percentage. This happened even when the total number of students who scored the minimum university entry was more that those admitted...
through AA. The ASAL affirmative policy on competitive degree courses just like the one on basic entry did not make significant access due to lack of flexibility in the admission criteria. The lowering of the specific points was between 1-2 then increased to 1-3 in a period of fifteen years. The margin by which the points were lowered remained close to the previous cut-off point which did not have much impact.

5.1.3 Suggested Institutional Policy Practices to Widen Access of Students from ASAL Regions to Universities

These are interventions expected to enhance the welfare of students from ASAL regions to universities. Students’ responses from the questionnaires indicated that welfare institutional interventions were given to those considered disadvantaged but there was no welfare support which targeted students from ASAL districts at the institutions. However, the respondents gave the following suggestions as interventions to increase access of students from ASAL regions to university. These suggestions, in order of preference were as follows: financial support, bursary, affirmative action (AA), career awareness, work study programmes and forming associations for students from ASAL regions.

Target students and lecturers proposed the need for the government to increase funding to the schools in the ASAL regions in terms of physical facilities and learning resources so as to impact positively on the overall performance of the students to enhance their entry into the Kenyan universities. This was suggested
in the context that most schools in the ASAL regions were of low quality and lacked qualified teachers. With regard to increasing access to professional courses, most students (53%) suggested that AA should be further enhanced by lowering the cut-off point as a means to increase access.

The university administrators proposed that to widen access to universities for students from ASAL regions, campuses should be established in the ASAL regions. This was considered to be critical in terms of reducing cost of travel and accommodation. Establishment of universities in the ASAL regions in line with the government policy of devolution would alleviate the problem of transport and accommodation costs.

Policy-makers and educational practitioners were of the view that the government had to reduce poverty levels, provide adequate schools and local qualified teachers as a means of widening access to universities for students from ASAL regions. If more students from ASAL regions could qualify to higher education, this would improve the social and human capital of the regions.

**5.2 Conclusions of the Study**

Based on the above findings, this study draws the following conclusions based on the objectives of the study:
5.2.1 Affirmative Action Access Trends to Universities by Students from ASAL Regions in Kenya

In the foregoing findings, the implementation of affirmative policy at the public universities for students from ASAL regions has been in place since 1989 and has been reviewed about five times with the intention of increasing access. But the impact of AA remains minimal. This is because the implementation of the policy by university administrators is unpredictable. At times, they even reduce the number of districts from ASAL regions that could benefit from the policy. Also, the reviews of the number of districts from ASAL regions which should benefit from the affirmative criteria were not consistent. The reviews did not result in significant access to universities because sometimes the inclusion or exclusion of some districts in the ASAL regions was not based on a concrete rationale. The percentage that benefited from the ASAL regions remained below 1% and yet the stipulated target was 10%. Hence, the study found that there was a discrepancy between the percentage to be admitted on AA and the one that was actually realized. Overall, the percentage of students from ASAL regions who got admitted on basic entry and professional courses were below the set ceiling.

5.2.2 Contributions of AA and Access Trends of Students from ASAL Regions to Universities in Kenya

The contributions of AA for students from ASAL regions were minimal because the target of ‘not less than 10%’ both in the basic entry and professional courses was not met. This had happened even when the number of public universities and
colleges had more than doubled in the last decade. In this regard, whereas the JAB reports stated that the percentage ceilings set were realized analysis done on the data captured in JAB affirmative admissions in the selected years (2004-2009) indicate that the percentages admitted were at best less than 1%. In particular, admission trends to all the selected 12 professional courses declined except one.

5.2.3 Suggested Institutional Policy Practices to Widen Access of Students from ASAL Regions to Universities

Field data from the students’ responses indicated that there were no welfare institutional interventions were given to students from ASAL districts at the institutions. In this regard the students proposed three aspects that could be used to widen access of students from ASAL regions to universities. These were: increase of resources in basic education (28%), improved affirmative action (24%) and establishment (12%) of universities in the ASAL districts. This implied that majority of the respondents were aware of the causes of the low performance in the national examinations which in turn contributed to the low number of students from ASAL districts who qualified for university.

There was no university in the ASAL regions at the time of the study. Hence, to increase access to universities respondents called for the establishment of universities in the ASAL regions. This was considered crucial in terms of reducing cost of travel and accommodation to students whose majority of parents (41%) depended on pastoralism which was not a predictable source of income.
The establishment of at least a public university in the ASAL regions could significantly improve the human capital formation that was essential in spurring investment in these regions.

5.3 Recommendations

The study provides two sets of recommendations. The first entails improvement on affirmative policy interventions for students from disadvantaged regions to access university education. The second provides the areas that may require further research.

5.3.1 Recommendations for Policy

This study was envisaged with a view to contributing to policy in the widening access of students from disadvantaged regions to universities through affirmative action. On the basis of the objectives of the study the following recommendations are proposed:

i) The admission trends of students from ASAL regions to universities indicate that the percentages admitted in a period of more than two decades has been minimal. This is because of the limitations set on the cut-off points and the erratic number of ASAL districts that benefit from the affirmative criteria. To improve on the existing AA for the disadvantaged in terms of the admission criteria to universities and professional courses, there is need for the
universities to admit all those who score minimum university entry. Similarly, there is need for the institutions to admit mature disadvantaged students through alternative modes of affirmative admission to university. This could avoid over-reliance on the KCSE results and introduce other modes of admission like pre-university, certificate and diploma courses so as to give more opportunities for university professional courses. Similarly, affirmative action should go beyond admission to include aspects like mentoring, participation, retention and success.

ii) The affirmative policy used to increase access of students from ASAL regions as currently constituted is an *ad hoc* Board and hence not accountable to the public. There is need for the Ministry of Education to transform JAB into a legal Board that is accountable to the public and also have an independent statutory body to monitor the progress made by the Board especially with regard to the affirmative criteria. Hence, JAB should be transformed to become an active participant in career awareness and choice decisions so that courses pursued are relevant to the needs of the students. Similarly, universities should come up with alternative affirmative policy in the financing and welfare support systems to students from disadvantaged backgrounds. This will complement the financial assistance given by the parents, government and other sponsors. The funding should aim at consolidating personal and institutional commitment for purposes of
sustaining participation and success in courses pursued by the disadvantaged students.

iii) It is recommended that besides universities lowering the cut-off point other interventions like pre-university entry and bridging courses could be used to increase the percentage of those who qualify. Similarly, AA could also be used to admit all those students from ASAL regions that score the minimum university entry just like it happens to those who are able pay in Module II. Other proposals that universities could implement include academic advising and mentoring so as to especially increase the percentage admitted to professional courses.

iv) To widen access to universities for students from ASAL regions, the Ministry of Education should provide adequate schools and provide local qualified teachers. These were considered to be critical aspects that determined the performance in national examinations for transition to universities and professional courses. Universities could also initiate policy decisions that have an impact on the provision of education in the ASAL regions.

5.3.2 Areas for Further Research
As stated in Chapter One, this was an exploratory study limited to three universities in Kenya: two public and one private. This implies that the findings may not be generalized to all the universities in the country without some modification. In addition, it implies that there may be gaps in this area which need
to be tackled. The following general areas related to the concerns of this study are consequently suggested for further research:

i) Detailed studies need to be undertaken on how to broaden affirmative action so that it goes beyond the admission criteria for the disadvantaged groups into universities. The AA should include aspects of financing, mentoring, pedagogy and curriculum relevance. These are critical aspects which could enhance participation, retention and success in university education especially for disadvantaged students.

ii) Studies need to be done to establish the socio-economic background of the students from ASAL regions who access universities through Module II. Increased privatization of public universities has made admission through Module II more flexible in terms of qualifications and mode of payment. Module II has been justified in terms of extending access to university programmes. Therefore, such studies would shed light on the impact of this mode of admission in terms of the socio-economic profiles of the students accessing universities. It is pertinent to establish these in a bid to ascertain whether the disadvantaged are getting access to higher education. Similarly, the studies could establish whether or not the students from ASAL regions who benefit from Module II are those from the rural setting or those settled in the major urban towns. In which case if it is the latter, then the development of the former will remain elusive.
iii) Studies need to be done to determine how many of the students admitted through affirmative action from the ASAL regions complete their studies in time, and even the courses that they are admitted to study. The affirmative policy as currently practised has no clear detailed data base on the admission, participation, retention and success trends. Similarly, it is not clear whether students from ASAL regions admitted to the public universities are actually the disadvantaged ones in terms of quality of schools attended and financial need. Yet these issues are important if any affirmative policy is to be used as a strategy of broadening access to university education for disadvantaged groups.
REFERENCES


COMMUNIQUÉ of the EUROPEAN MINISTERS RESPONSIBLE for HIGHER EDUCATION. (2009). The Bologna process 2020- The European Higher Education Area (EHEA) in the new decade; Conference of European Ministers Responsible for Higher Education Leuven and Louvain-la-Neuve, Belgium, on 28-29 April.

COMMISSION for REVENUE ALLOCATION. (2011). Kenya: County Fact Sheets


Hinrichs, P. (2010). The effects of affirmative action bans on College enrolment, educational attainment and the demographic composition of universities. JEL


James R. (2007). Social equity in a mass, globalised higher education environment: the unresolved issue of widening access to university. Faculty of Education Dean’s Lecture Series 18 September

JOINT ADMISSIONS BOARD. (2012). Report of the Joint Admissions Board Sub-Committee on Review of Affirmative Action on Admissions Criteria

JOINT ADMISSIONS BOARD. (2010). Report of the Joint Admissions Board Sub-Committee on the Decline in the Number of Students Applying to Public Universities


JOINT ADMISSIONS BOARD. (1997). Report of the Sub-Committee of Joint Admissions Board on Special Admission Criteria


Lug, R., Morley, L., & Leach, F. (2007). Widening participation in higher education in Ghana and Tanzania: Developing an equity scorecard, ESRC/DFID.


Higher Education and Equity Research (CHEER), University of Sussex, UK, Symposium 1401 Paper No. 0165.

Mullen, F. (2010). Barriers to widening access to higher education. Scottish Parliament Information Centre (SPICe) Briefing 10/07, Scotland.


REPUBLIC of KENYA. (2010). Kenya Population and Housing Census Results. KNBS


UNIVERSITY of NAIROBI. (1989). Report of the Sub-Committee of the Admissions Board of University of Nairobi on Disadvantaged Districts


APPENDICES

APPENDIX 1: Questionnaire for Undergraduate Students from ASAL regions

Dear respondent,

My name is Mark Makori Obonyo. I am a PhD student at Kenyatta University and currently undertaking a research on The Contributions of Affirmative Action to widening access to universities for Students from Kenya’s Arid Regions and Exploration of alternative interventions. The main objective of the study will be to explore the contributions of affirmative admission policies as a strategy to widen access and participation of undergraduate students from ASAL regions to universities in Kenya. Data sought from you will be used to improve on access and success policies to universities. I assure you that your responses will be treated confidentially.

Yours sincerely,

Mark M. Obonyo
(Researcher)

A. Background information on the respondent:

1. **Institution:** Tick the type of university:  Public: [ ] Private:[ ]
2. **Province and District of Birth:** Province: ............. District.................
3. **Year of Study:**  (Please tick one)  1[ ] 2[ ] 3[ ] 4[ ] 5[ ] 6[ ]
4. **Course of Study:**  (Please indicate Science or Arts)...........................
5. **Mode of access to university education:**  (Please tick one)
   Self-sponsored [ ] JAB Affirmative action [ ] JAB direct admission [ ].
6. **Gender:** Tick your gender: Female: [ ] Male: [ ]

B. Educational and socio-economic background:  (Please tick one as appropriate)

1. **Secondary education:**  i) Public: National [ ] Provincial [ ] District [ ]
   ii) Private: [ ]
2. **What is your parents/guardians major source of income?**
   Employment in the government [ ] Employment in the private sector [ ]
   Employment in an NGO [ ] Business person [ ] keeps livestock [ ]
   Other (specify)
3. What is your parent’s/guardians highest level of education? *Please select one.*
   - Non formal education [ ]
   - Some Primary [ ]
   - Some Secondary [ ]
   - Post-Secondary [ ]

4. a) How many of your sister/brother(s) have gone beyond secondary school level?
   - 0 [ ]
   - 1 - 3 [ ]
   - 4 - 6 [ ].

   b) Please show the number (s) in terms of gender. Female [ ] Male [ ]

C. Admission to university for undergraduate courses:

1. In case you pursued your secondary schooling outside your district of birth state the district..........................................

2. Did you benefit from the lower cut off points in the affirmative action?
   - YES [ ]
   - NO [ ]

3. Who financed your secondary school education?


5. How did you get to know which course(s) to choose for university degree?

6. How did you qualify for the degree course admitted? *Please choose one*
   - Direct KCSE qualification: [ ]
   - After training/employment [ ]
   - Pre-university bridging course: [ ]
   - Any other (*please specify*). . . . .

7. Indicate the source(s) of finance for your university education.

8. State educational challenges faced by students from ASAL regions:

9. Why do some students from ASAL regions fail to meet the cut-off points for university undergraduate admission after KCSE? *Please state reason(s)*

10. How do the following factors limit ASAL student’s admission to university professional degree courses?
   i) Distance to university:
   ii) Fee structure
   iii) Availability of courses
   iv) Campus facilities (Hostels, lecture rooms)
   - Other (*specify*):
11. In your own opinion how can the government increase the number of students admitted to university from ASAL communities?

12. In which way(s) can universities expand the number of ASAL students qualifying for professional courses?

D. Interventions to widen access to university:
   1. What are some of the welfare and student support services offered at your university to support the academic progress of disadvantaged students?

   2. a) Are there such services that are specifically designed for students from ASAL/Minority backgrounds? If so, briefly explain the nature of services and how they work?

   b) If NOT in (a) above, suggest some of the welfare and support services that you think your university needs to implement to support the academic progress of students from ASAL regions?

3. Explain how affirmative action for the students from ASAL areas operates?

4. Suggest ways in which affirmative action for the students from ASAL areas could be improved to widen access to universities.
APPENDIX 2: Open-ended Interview for Vice-Chancellor

Dear respondent,
My name is Mark Makori Obonyo. I am a PhD student at Kenyatta University and currently undertaking a research on The Contributions of Affirmative Action to widening access to universities for Students from Kenya’s Arid Regions and Exploration of alternative interventions. The main objective of the study will be to explore the effectiveness of affirmative admission policies as a strategy to widen access and participation of students from ASAL regions to universities in Kenya. You have been selected for this Open-ended Interview as the senior most University administrator. Information sought from you will be used to improve on access and success policies to universities. You are free to add any relevant information which may not be captured in this instrument. I assure you that your responses will be treated confidentially and will not be used for any other purpose other than for this research.
Thank you in advance.
Yours sincerely,
Mark M. Obonyo

A. Personal Data.
1. Indicate the number of years taught in this university? 1-4[ ] 5-8 [ ] over 8[ ]

2. What is your highest level of academic qualification? Please indicate in this space........................

3. Indicate number of years you have held this office: 1-4[ ] 5-8 [ ] over 8[ ]

B. Background information
1. What is your role in the admission of undergraduate students in this university?

2. Indicate the major admission mode through which undergraduate students from ASAL backgrounds and other minority groups get access to university courses.
   a. Direct JAB qualification [ ]
   b. Affirmative JAB qualification [ ]
   c. Module II qualification [ ] Any other (please specify)

3. Please explain how JAB affirmative action works in the admission of undergraduate students.
4. Which modes of admission are used by your institution to widen access of students from ASAL regions?

5. Comment on the access and admission of students from ASAL regions to universities.

C. University admission policies:
1. How does your institution assist the access, participation, retention and success of students from ASAL regions in this university?

2. How does the university promote education for the disadvantaged groups in the undergraduate courses? Please list the approaches used.

3. What form of special assistance does your institution offer to students from ASAL regions? Please explain.

4. How is gender taken care of in C (3) above?

D. Policy mechanisms to widen access:
1. What are the main objectives of your institution in widening/increasing participation to undergraduate students?

2. What links does the University have with secondary schools to widen university admission?

3. If the links in (2) above exist, in which districts are these secondary schools found?

4. Which policy mechanisms are used by your university to encourage ASAL students to get access to professional courses?

5. What provision for financial support does the university offer ASAL students in professional courses? (e.g Medicine, Engineering, Law, Architecture)

6. What limits the number of students from ASAL regions to professional courses in university? Please state

7. What would you say are the challenges to widening access for the students from ASAL regions to universities in Kenya? Please explain

8. Suggest policy interventions at university level that can widen access of the students from ASAL regions to universities in Kenya.
APPENDIX 3: Open-ended interview for Deputy Vice-Chancellor (Academic)

Dear respondent,

My name is Mark Makori Obonyo. I am a PhD student at Kenyatta University and currently undertaking a research on *The Contributions of Affirmative Action to widening access to universities for Students from Kenya’s Arid Regions and Exploration of alternative interventions*. The main objective of the study will be to explore the contributions of affirmative admission policies as a strategy to widen access and participation of students from ASAL regions to universities in Kenya. You have been selected for this interview as a senior University administrator. I assure you that your responses will be treated confidentially and will not be used for any other purpose other than for this research.

Thank you in advance.

Yours sincerely,

Mark M. Obonyo

A. Personal Data.

1. Indicate the number of years taught in this university? 1-4[ ] 5-8 [ ] over 8[ ]

2. What is your highest level of academic qualification? Please indicate in this space

........................................

3. State the number of years you have held this office: 1-4[ ] 5-8 [ ] over 8[

B. Background information

1. Indicate the major admission mode through which undergraduate students from ASAL backgrounds and other minority groups get access to university courses.

   a. Direct JAB qualification [ ]
   b. Affirmative JAB qualification [ ]

   c. Module II qualification [ ] Any other (please specify)...............,

2. Which modes of admission are used by your institution to widen access of students from ASAL regions?

4. Comment on the access and admission of students from ASAL regions to universities.
C. University admission policies:
   1. How does your institution assist the access, participation, retention and success of ASAL students in this university?

   2. How does the university promote education for the disadvantaged groups in the undergraduate courses? Please list the approaches used.

   3. Does your institution offer special assistance to students from ASAL in terms of gender? YES [ ] NO [ ]
   If yes, what form of assistance is given? Please state.

   5. How is gender taken care of in C (3) above?

D. Policy mechanisms to widen access:

   1. What are the main objectives of your institution in widening/increasing participation to undergraduate students?

   2. Which links does the University have with secondary schools to increase on university admission?

   3. If the links in 2 above, state the district in which these secondary schools are found.

   4. Which policy mechanisms are used by your university to encourage ASAL students to get access to professional courses?

   5. What provision for financial support does the university offer ASAL students in professional courses? (e.g Medicine, Engineering, Law, Architecture, Actuarial)

   6. What limits the number of students from ASAL regions to professional courses in university? Please state

   7. What would you say are the challenges to widening access for the students from ASAL regions to universities in Kenya? Please explain

   8. Suggest policy interventions at university level that can widen access of the students from ASAL regions to universities in Kenya.
APPENDIX 4: Open-ended Interview for Registrar (Academic)

Dear respondent,
My name is Mark Makori Obonyo. I am a PhD student at Kenyatta University and currently undertaking a research on The Contributions of Affirmative Action to widening access to universities for Students from Kenya’s Arid Regions and Exploration of alternative interventions. You have been selected for this Open-ended Interview as a senior administrator. You are free to add any relevant information which may not be captured in this instrument. I assure you that your responses will be treated confidentially. Your responses will not be used for any other purpose other than the research purpose for which they are intended.
Yours sincerely,

Mark M. Obonyo
(PhD, student)

A. Background information
1. What is the mode of admission to this university for undergraduate courses?
   - JAB admission only [  ]
   - SSP admission only [  ]
   - JAB and SSP [  ]

2. What other modes of admission are used by your institution to widen access of students from ASAL regions?

3. Comment on the access and admission of students from ASAL regions to universities.

B. University admission policies:
1. How does the university promote inclusive education for undergraduate courses? Please list the approaches used

2. Does the university recognize disadvantaged students from ASAL districts? Please explain

3. How does your institution assist the access, participation, retention and success of ASAL students in this university?

4. Does your institution offer special assistance to students from ASAL in terms of gender?
   - YES [  ]
   - NO [  ]

If yes, what form of assistance is given? Please state
C. Policy mechanisms to widen access:

1. What are the main objectives of your institution in widening/increasing participation to undergraduate students?

2. Which secondary school/ district that link with the university?

3. What are the policy mechanisms used by your university to encourage ASAL students to get access to professional courses?

4. How is gender taken care of in C (3) above?

5. What provision for financial support does the university offer ASAL students in professional courses?

6. How can the university increase the number of ASAL students?

7. In your view, what limits the number of ASAL students to professional courses in university? Please state

8. What would you say are the challenges to widening access for the ASAL students to universities in Kenya? Please explain

9. Suggest policy interventions at university level that can widen access of the ASAL students to universities in Kenya.
APPENDIX 5: Open-ended Interview for Deans of Schools/Colleges

Dear respondent,

My name is Mark Makori Obonyo. I am a PhD student at Kenyatta University and currently undertaking a research on The Contributions of Affirmative Action to widening access to universities for Students from Kenya’s Arid Regions and Exploration of alternative interventions. The main objective of the study will be to explore the contributions of affirmative admission policies as a strategy to widen access and participation of students from ASAL regions to universities in Kenya. You have been selected for this Open-ended Interview as a senior University administrator. Data sought from you will be used to improve on access and success policies to universities. I assure you that your responses will be treated confidentially and will not be used for any other purpose other than for this research.

Yours sincerely,

Mark M. Obonyo

A. Background information
1. What are the access modes for the admission of undergraduate students from ASAL backgrounds and other minority groups?

2. Comment on the access and admission trends of students from ASAL regions to this university.

B. University admission policies:
1. How does your institution assist the retention and success of ASAL students in this university?

2. Does your institution offer special assistance to students from ASAL in terms of gender?

   YES [ ] NO [ ]

3. If yes, what form of assistance is given? Please state

4. How is gender taken care of in B (2) above?

C. Policy mechanisms to widen access:

1. What are the main objectives of your institution in widening/increasing participation to undergraduate students?
2. Does the University have links to secondary schools focused on university admission?
   YES [ ] NO [ ]

3. State the districts in which these secondary schools are found?

4. What policy mechanisms are used by your university to encourage ASAL students to get access to professional courses? (e.g. Medicine, Engineering, Law, Architecture)

5. How can the university increase the number of ASAL students?

6. In your view, what limits the number of ASAL students to professional courses in university? Please state

7. What would you say are the challenges to widening access for the ASAL students to universities in Kenya? Please explain

8. Suggest policy interventions at university level that can widen access of the students from ASAL regions to universities in Kenya.
APPENDIX 6: Open-ended Interview for CHE Secretariat

Dear respondent,
My name is Mark Makori Obonyo. I am a PhD student at Kenyatta University and currently undertaking a research on The Contributions of Affirmative Action to widening access to universities for Students from Kenya’s Arid Regions and Exploration of alternative interventions. The main objective of the study will be to explore the contributions of affirmative admission policies as a strategy to widen access and participation of students from ASAL regions to universities in Kenya. You have been selected for this Open-ended Interview as a senior University administrator. Data sought from you will be used to improve on access and success policies to universities. I assure you that your responses will be treated confidentially and will not be used for any other purpose other than for this research.
Yours sincerely,
Mark M. Obonyo

A. Access and admission policies to undergraduate students:

1. State the names of the current Arid and Semi arid districts as per JAB affirmative criteria.

3. Indicate the number of students from Arid and Semi arid districts that were admitted to competitive degree programmes like Engineering, Law, Medicine, Architecture and Actuarial Science since 2004/2005 to 2009/2010. Please indicate by gender.

4. Please state the current university admission policies for ASAL students.

5. State the limitations that ASAL undergraduate students face in getting admitted to university?

B. Interventions to widen access to ASAL undergraduate students:

1. What are the interventions in place to widen access to ASAL undergraduate students?

2. In your view, how are the interventions translated into long-term operational policies in guiding universities to widen access strategies to disadvantaged groups?
APPENDIX 7: Open-ended Interview for Chief Executive Officer- HELB

Dear respondent,
My name is Mark Makori Obonyo. I am a PhD student at Kenyatta University and currently undertaking a research on The Contributions of Affirmative Action to widening access to universities for Students from Kenya’s Arid Regions and Exploration of alternative interventions. The main objective of the study will be to explore the contributions of affirmative admission policies as a strategy to widen access and participation of students from ASAL regions to universities in Kenya. You have been selected for this Open-ended Interview as a senior University administrator. Data sought from you will be used to improve on access and success policies to universities. I assure you that your responses will be treated confidentially and will not be used for any other purpose other than for this research.
Yours sincerely,
Mark M. Obonyo

Awarding of loans and bursaries to undergraduate students

1. Does HELB award loans, bursaries and scholarships specifically to ASAL undergraduate students? If yes, state the criteria: loans, bursaries and scholarships
2. How is the funding of students in professional courses and non-professional courses done?
3. Please explain special considerations on awarding loans for students from ASAL areas in professional programs?
4. What mechanisms are in place to ensure the loans, bursaries and scholarships given to the ASAL students reach those at the lower end of the socio-economic cadre?
5. In terms of gender, how are loans, bursaries and scholarships awarded?
6. What are the criteria for awarding loans to undergraduate students?
APPENDIX 8: Interview Guide for University administrators in charge of Student Welfare

**Purpose of discussion:** To explore contributions of affirmative action to widening access to universities for students from Kenya’s Arid Regions and alternative interventions.

1. What is the role of student welfare officers at university?

2. How does your role affect students from ASAL communities in terms of finance, accommodation, food and academic matters?

3. Which institutional interventions can be put in place to enhance the welfare of ASAL students?

4. Comment on the following concerning ASAL students:
   i. access and participation
   ii. retention
   iii. success/graduation

5. How does the disbursement of loans and bursaries affect access and participation of students from ASAL areas in universities?

6. What targets does the university have on widening participation to the disadvantaged
APPENDIX 9: Interview Guide for Lecturers from ASAL regions

Purpose of the discussions: To explore contributions of affirmative action to widening access to universities for students from Kenya's Arid Regions and alternative interventions

1. Discuss the barriers to widening access to education of students from ASAL regions to:
   i. Primary
   ii. Secondary
   iii. University

2. How do these barriers affect:
   i) Girls
   ii) Boys

3. What institutional interventions can universities implement to address the barriers faced by ASAL students prior to accessing and while at universities?

4. What modalities can universities use to assist students from ASAL regions access and participate in higher education in terms of the following?
   i. Enrolment
   ii. financial support
   iii. successful completion at universities

5. How can universities reduce the dropout rate of students from ASAL regions in your university?

6. What linkages can universities establish to widen access for students from ASAL communities in Kenya?

7. In what ways can students from ASAL regions be prepared for university education and professional courses?
APPENDIX 10: Interview Guide for Policy Makers/Development Practitioners

1. Discuss the barriers to widening access of students from ASAL regions to: primary, secondary and university education.

2. What are the barriers that affect academic performance of girls and boys from ASAL regions?

3. What institutional interventions can be implemented to address the barriers faced by ASAL students prior to accessing and while at universities?

4. What modalities can universities use to assist students from ASAL regions access and participate in higher education in terms of enrolment, financial support and successful completion at universities?

5. Suggest ways in which the university can widen access to the students from ASAL regions.
APPENDIX 11: Focused Group Discussion: Guide for Students

1. *Purpose of the discussions*

2. What is the role of affirmative action in university admission?

3. Discuss the role of affirmative action to students from ASAL regions in regard to accessing university.

4. Discuss the reason(s) that prevent students from ASAL regions to meet the cut-off points for university undergraduate admission after KCSE?

5. What are the limitations faced by students from ASAL areas in accessing university professional degree courses?

6. How can the government increase the number of students qualifying for university education from ASAL communities?

7. Explain how your university assists students from ASAL regions to complete their studies.

8. Discuss causes of drop-outs and discontinuity at university professional courses for ASAL students?

9. How can universities reduce the dropout rate among ASAL students in your university?

10. What linkages can universities establish to widen access for students from ASAL communities in Kenya?

11. What about the location of universities? How does the location of universities affect access and retention of students from ASAL regions.
### APPENDIX 12: Summary KCSE results in arid districts from 2003 to 2009 by gender

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Source: KNEC 2004-2009
APPENDIX 13: JAB Admissions Analysis from KCSE of 2004 to 2009

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Source: JAB RECORDS, 2004-2009
APPENDIX 14: Map showing arid and semi arid districts in Kenya

MAP OF KENYA SHOWING ARID AND SEMI ARID DISTRICTS

RED ARE ARID DISTRICTS
YELLOW ARE SEMI ARID DISTRICTS
APPENDIX 15: Research permit