





•



# Where are all the Men? Gender, Participation and Higher Education in the United Arab Emirates

Fatma Abdulla<sup>1</sup> Natasha Ridge<sup>2</sup>

## **Abstract**

The issue of access to higher education in development literature has been largely examined from the perspective of unequal access for women. Global trends reveal that although some countries continue to lag behind others in female representation in higher education, the majority shows higher female participation. In the Middle East, a region traditionally associated with male privilege, women's participation in higher education has also been increasing at far greater rates than that of men, to the point where over 70% of students in tertiary education in the United Arab Emirates are women.

While research has been conducted on male participation rates in some OECD countries, very little research has been conducted in the Middle East despite even lower male participation rates. This paper covers the case of the United Arab Emirates and uses the literature on access to examine male participation in higher education from an economic and sociological perspective. It explores why so many Emirati men are failing to enroll in higher education. Key factors for the low male participation rates identified in this paper include the disconnect between educational effort and probable rewards, social and educational stratification and poor prior academic attainment of Emirati men. The paper concludes by recommending further research into the causes of low male participation rates in higher education in the UAE with particular attention to socioeconomic influences on student achievement.

## I. Introduction

The global expansion of access to post secondary education is clearly one of the most important trends in education worldwide. Higher education enrollment has been steadily on the rise in almost every country in the world, with the increase resulting in greater access for individuals and groups that were previously excluded from higher education systems. Nowhere in the world has the increased access to general education and subsequently higher education been more pronounced than in the countries of the Gulf Co-operation Council (GCC).

In its short thirty seven years the United Arab Emirates (UAE) has made significant investments in

<sup>&</sup>lt;sup>2</sup> Research fellow, Dubai School of Government, Dubai- UAE. E-mail: natasha.ridge@dsg.ac.ae









<sup>&</sup>lt;sup>1</sup> Managing Director, Global Consulting Associates, Dubai - UAE. E-mail: fatma@gconsultingassociates.com



educational infrastructure which have resulted in an increase in the general literacy rate from 60% in 1970 to over 97% in 2006 (UNESCO, 2008). No place has this investment been more evident than in the education of females. Although women in the UAE had access to education almost two decades later than their male counterparts, today women are surpassing men in both their presence and performance in secondary and tertiary education (Ministry of Education, 2007). At the secondary level, girls are outperforming boys across the majority of subjects (Ministry of Education, 2007) and in higher education women make up over 70% of all students in UAE universities (UNESCO, 2008).

A recent study on the motivations of Emirati women in pursuing higher education found that higher education has become a social and familial expectation (Abdulla, 2007). That is, families expect their daughters to pursue higher education both because of its accessibility and the fact that it enables young women to achieve greater social and economic mobility. Mothers in particular advocate for their daughters to pursue higher education as an insurance policy for the future. With an education, women are less dependent on their husbands for financial support and, in the case of divorce or abandonment, education enables women to seek employment to support themselves and their families (Abdulla, 2007). While women have taken advantage of the opportunities for social and economic mobility offered to them through higher education, the situation for men is vastly different. With higher education enrolment rates for men at around 27% (NAPO, 2005) it is evident that males are opting out for reasons that so far have not been explored.

This paper asks the question "Where are all the men?" While research has been conducted on declining male participation rates in higher education in many OECD countries, very little research has been done in the Middle East to explore this phenomenon. This is despite even lower male participation rates in many of the oil-rich Gulf States as compared to OECD countries. This paper examines the case of the United Arab Emirates and uses literature on access to explore male participation in higher education from both economic and sociological perspectives.

# II. Economic variables

The use of economic rationales as an explanation for increased participation in higher education is not new. The link between education and economic growth has been studied extensively by both economists and educators. The relationship between the two is often cited as the primary reason for increased investment in higher education by countries both in the industrial and developing worlds. Becker's (1964) seminal work on human capital is one of the most important theories used to explain this relationship. Becker (1964) and Schultz (1971) posited that increased levels of education and training lead to greater national productivity and higher earnings. The implication of this theory is that demand for education should be higher when returns exceed opportunity costs of foregone earnings, assuming that individuals are rational beings that are making choices based on all available information. Although empirical findings from a number of economic studies support the human capital theory, limitations to the theory have also been identified. These limitations include the inability of the theory to explain the greater economic returns realized by higher socioeconomic classes perhaps due to the social and cultural capital that they possess (Otero, 2007). Later studies on the links between education and economic growth are also not definitive and find mixed results. Carnoy (1995) finds that there is essentially a positive relationship between an individual's level of education and his/her earnings, however this relationship does not hold for all regions.







#### 1. Perceived returns to education

In the Middle East, there is scant literature examining returns to education. The World Bank 2008 MENA Report on Education cites a study by Pritchett (1996) who found that while education had a positive impact on economic growth in Asia and Latin America, in the MENA region it produced a negative impact. A further study by Fattah et al (2000) also found that the initial level of education was not a significant determinant of growth for the MENA region. The World Bank Middle East and North Africa (MENA) Report (2008) however stated that it was difficult to accept that there was no positive association between education and economic growth. It suggested that one of the explanations for the lack of evidence of a relationship may have a lot to do with the quality of education which includes the capacity of workers to innovate or adopt new technologies. Another suggested explanation was the distribution of workers among different economic activities. It is therefore difficult to definitively state that education has no impact on economic growth because of the dearth of studies that look at complicating factors associated with returns to education in the Middle East and more particularly in the Gulf States.

What the general literature does suggest though is that if there are positive returns to higher education; therefore more people, including men, should be opting into it. There are a number of problems with this assumption in the Gulf States and the UAE. In the case of women, a large percentage of those who have completed higher education do not enter the labor force either due to their inability to obtain suitable employment or the demands of family and motherhood. Those that do join the workforce tend to earn salaries less than those of men with comparable or less education (Abdulla, 2007). The latter is true in countries around the world and numerous theories have emerged to explain why women continue to pursue higher education despite the lower returns they receive from their education. Two plausible explanations to this phenomenon arise; the first states that women look to other women and not men as a point of reference when evaluating returns on their education because they are aware of their relatively diminished position in the labor market in relation to men (Mickelson, 1989). And the second, which is even more relevant to the Middle East, states that women's access to higher education transcends the basic acquisition of knowledge and skills and is viewed as emancipating, thus explaining why women continue to pursue higher education across cultures despite wage disparities.

With regard to male participation in higher education, Fattah et al (2000) state that, in societies where the quality of education is low and public sector employment high, individuals often make distorted educational choices. One significant factor that could be affecting the decisions of males regarding attending higher education is a perceived lack of economic benefits from undertaking higher education. In a study of the reasons why admitted males do not show up to public higher education institutions in the UAE, it was found that the largest percentage were going to the police or military and the next largest group were looking for work or staying at home. In total, over 60% of male students who did not show up were either employed or looking for some type of employment within the public sector.

It seems that Emirati males perceive that the nominal gains achieved through higher education are not enough to offset the rewards of going directly into employment. Although there is no empirical evidence to support this assertion, it is plausible that perceived returns to higher education are low relative to available public sector employment opportunities.







Table 1: Reasons for Male 'No Show' in Higher Education in the UAE

Reason for 'No Show'	Percentage		
Military and Police	33		
Staying at home or looking for work	30		
Attended other institution	27		
Started employment	5		
Studying abroad	5		

Source: National Admissions and Placement Office for Higher Education, 2005

## 2. The impact of a rentier state

Another explanation for why choices become distorted and why therefore Emirati males would choose not to undertake higher education is offered by studies on rentier or rent-seeking behavior that has been thought to characterize resource-rich nations. Minnis (2006) believes that educational underachievement in the Gulf States may be linked to a rentier mentality which is characterized by a disjunction between educational effort and probable reward. In rentier economies, rent refers to financial income that is not matched by corresponding labor or investment. Minnis (2006) states that in the Gulf States, 'the relationship between the citizen and the state is fundamentally different from that found in non-resource based societies' p.985. In the Gulf States the extraction of oil accrues rents to the ruling families who, in turn, distribute this wealth to their citizens in the form of education, housing, healthcare and other benefits. This, in turn, could tend to distort the work-reward causation (Beblawi and Luciani, 1987). This means that the reward for labor, income, is no longer connected to work effort.

The bloated public sector in the Gulf States is testament to work creation projects for nationals and the preferences of nationals to work in the public sector due to higher wages, shorter working hours and early retirement benefits. In the GCC it has been reported that nationals in the public sector account for 58% of total nationals employed in 2007 (Arab Times, 2009). In the wider MENA region Fattah et al (2000) state that in the early 1990s the average share of public sector employment was around 17.5% compared to less than 9% for developing countries as a group. In addition public sector wages on average in the MENA region amounted to 10% in the same period, which was double the world average. In the United Arab Emirates 86% of nationals are employed in the public sector which is one of the highest percentages within the GCC countries (Arab Times, 2009). This over-investment in the public sector distorts the perceived returns to education and can lead to the lower productivity and educational attainment in countries, such as the UAE, where competition for public sector jobs is low. It has the effect of delinking educational attainment and employment and it leads to an uncompetitive labor market. This, coupled with sociological variables, has a negative impact on male participation in higher education and on education in general.

Therefore, In addition to economic variables, there are sociological factors which may also be contributing to the poor participation of Emirati males in higher education and it is important that these factors are not overlooked in creating a more complex explanation for male underparticipation in higher education in the UAE.







# III. Sociological factors

Various theorists have studied sociological variables that influence higher education participation. Some have focused on access and discuss the impact of selectivity through examinations and prior attainment on access (Broecke et al, 2008). Others view social inequality or stratification (Buchmann et al, 2001) as a precursor to educational inequality which leads marginalized groups to undervalue education by overestimating costs and underestimating benefits. Both these theoretical approaches can be applied to understand the low higher education participation of Emirati men in higher education.

#### 1. Prior attainment

Broecke and Hamad (2008) in a study on male under-participation in higher education in the United Kingdom (UK) found that prior attainment was the greatest factor explaining why males in the UK did not continue to higher education. Poor achievement in secondary school was, they stated, the most significant factor in explaining why males did not choose to go on to university. They found that if prior attainment was controlled for then gender differences disappear.

In the Gulf and the UAE in particular, males have been performing poorly across all subjects and grades. As schools are segregated by gender it has been relatively easy to isolate and identify these gender differences. In the emirate of Ras Al Khaimah the Ministry of Education reported that in the 2006 / 07 academic year girls outperformed or equaled boys in every grade and subject, see Table 2 below. Even in subjects typically associated with male advantage such as Mathematics, girls were still found to be doing better.

Table 2: Pass Rates by Gender and Grade in the Emirate of Ras Al Khaimah 2006 /07

Subject	Grade 10		Grade 11 Science <sup>3</sup>		Grade 11 Arts		Grade 12 Science		Grade 12 Arts	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Arabic	77	96	99	100	88	98	94	100	79	93
English	84	97	98	99	68	81	93	99	56	82
Mathematics	62	87	95	99	92	100	92	98	82	98
Biology	79	96	100	100	94	99	88	96	82	97
Geography⁴	80	96	n/a	n/a	95	98	n/a	n/a	90	97

Source: Ministry of Education, 2007

A study by Ridge (2008) also found that 14% of boys dropped out in Grade 10 in Ras Al Khaimah, which is troubling as it means a significant percentage of males do not even have the option to consider higher education. Coupled with the high no show rates at the higher education level







<sup>&</sup>lt;sup>3</sup> In the UAE, Grades 11 and 12 follow two separate sections, an arts section and a science section, which students select at the beginning of Year 11. Commonly, less able students will select the arts section, while the more academically-minded will select the science section.

<sup>&</sup>lt;sup>4</sup> Geography is not taken by science section students.



for admitted males this presents a worrying picture. Those males that choose to continue their education tend, as a result, to be behind girls in terms of academic performance throughout the final high school years. They are most behind however in terms of English where it can be seen that, especially in the Arts streams, girls are passing at much higher rates than boys.

The poor level of English for males is confirmed by the results of the CEPA (Common English Proficiency Assessment) test. CEPA is the first national standardized test of Grade 12 students and assesses English and Math, it also illustrates the differences between the achievement of boys and girls, with girls performing better than boys on both English and Math tests. In Figure 1 below it can be seen that male CEPA English scores in general are skewed to the left, showing a more negative distribution, while female scores follow a more typical normal distribution.

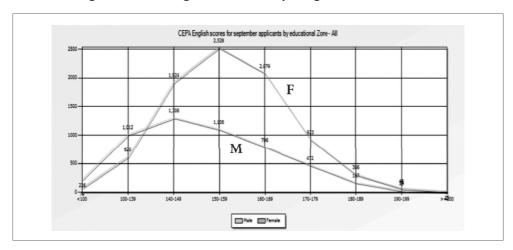


Figure 1: CEPA English scores comparing males and females

Source: National Admissions and Placements Office

CEPA scores are used to stream students into university versus technical/vocational education and are also used to further stratify applicants into Diploma versus Higher Diploma streams at the technical college level. Only a tiny percentage of students achieve high enough CEPA scores to enable them to enter directly into their educational programs, bypassing one to two year long foundations or remedial coursework.

The low English language levels of government school graduates are of particular concern especially as English is the subject in which boys perform the worst, with just over 50% of male tenth graders passing the standard English exam in Ras Al Khaimah schools. Underperformance in English has a significant impact on young men who wish to enroll in higher education because English is the language of instruction in the public higher education system in the UAE. Poor performance in English further reduces chances that males will enroll in higher education and can also have a negative impact on persistence for those who do enroll.

The issue of male underperformance in English is linked to the poor quality of male English language teachers in government schools (Ridge, 2008). These teachers often either do not have a teaching qualification or they have an extremely poor command of the English language. Findings of a recent study in boys' schools indicate that very little English is used during English language classes, which is one of the reasons for the poor performance of boys in English (Ridge,







2008). In addition male students are required to do very little in terms of homework and the majority of students reported that English was their least favorite subject (Ridge, 2008).

The ramifications of this negative association and performance in English, formed in secondary school, on the decision of students to pursue higher education should not be overlooked. While there have been frequent papers presented at conferences in the UAE, such as at the annual TESOL Arabia conference, regarding the poor English language levels of students in higher education these presentations have failed to attempt to identify the root causes of this issue. In addition there are no studies that examine the fact that males who opt out of higher education in the first place have an even poorer command of the English language and the impact of this on future work and life opportunities.

The lack of career counseling at the high school level may also be an important contributing factor to low male enrolment. Forcing students to make decisions about their degree or majors upon applying for post-secondary education with little or no career counseling markedly reduces student options, particularly for those who are first-generation high school graduates and who have no role models to assist with making career choices. The inability of students to change majors because of system rigidity and the linear nature of the educational curriculum further compounds the problem and forces students that lose interest in a particular major to drop out. For males whose English levels are low decisions about which courses to take may change once they have reached a certain competency in English but at that stage they may be unable to change and thus opt out.

Prior attainment therefore could play a significant role in explaining the low participation rates of boys in higher education. In a survey of 250 Emirati students Ridge (2008) found girls and boys reported enjoying school equally in general, however when it came to how much they liked their particular school 45.7% of girls rated their school as excellent while only 26.8% of boys gave their school the same rating. As boys are demoralized within schools and unmotivated to learn, their perception of the benefits or enjoyment of higher education will almost certainly not contain the positive association that it has for girls.

## 2. Social and educational stratification

Stratification literature with regard to education examines the ways in which social strata related to family, community, and society interacts with education to either change or maintain the status quo. There has been much debate in the USA about the role of the family in determining academic success. The now infamous Coleman Report (Coleman et al, 1966) stated that schools had very little impact on the success of students and that family played a much more integral role. In contrast, research on the role of family in determining the academic success of students conducted in developing countries has found that in these countries family background was less important than school factors. The same studies also concluded that the poorer the country the greater the impact of the school and teacher compared to that of the family (Heyneman & Loxley, 1983). In the Middle East there has been little research done on the impact of family factors on educational attainment. However, numerous studies by researchers in other countries have found a positive correlation between the socioeconomic status of the family and educational attainment (Filmer & Pritchett, 1999; Massialas & Jarrar, 1991).

In the United Arab Emirates there are several applications for this literature to the question of male participation. Income differences between local citizens in different emirates seem to have a relationship with school achievement and university enrollment. While extremely understudied, a look at CEPA scores, per capita incomes, and university no-show rates by emirate offers some insights.







When emirates are looked at individually, see Table 3 below, it appears that less urbanized, poorer emirates in general tend to have lower CEPA English scores. With regard to no shows the picture is not as clear. Males in Fujairah have the highest no show rates in the UAE at around 61% but it is not clear where these males are going or if there is some form of government program in Fujairah that offers males an alternative. At the other end, males in Ajman, which has the lowest per capita income, have the second lowest no show rates, comparable to Dubai and Abu Dhabi. Overall however, it could be argued that males in the five poorest emirates; Um Al Qawain, Ras Al Khaimah, Sharjah, Ajman and Fujairah are therefore more at risk than males in Dubai or Abu Dhabi, who are comparatively wealthier and have higher test scores and lower numbers of no-shows.

Table 3: Inter-emirate differences in income, test scores and no-shows

Emirate	Per Capita Income AED (2006)	Average Male CEPA English Scores	% Male No Shows (2005)
Abu Dhabi	141,696	153	42%
Dubai	123,017	159	36%
Fujairah	53,808	140	61%
Sharjah	52,177	145	53% <sup>5</sup>
Ras Al Khaimah	51,981	143	55%
Um Al Qawain	49,960	145	51%
Ajman	35,382	144	40%

Sources: Ministry of Economy (2006), National Admissions and Placement Office (2005)

A study by James (2001) looked at the effects of geographical location and socioeconomic status on access to higher education in Australia. While he found that higher education participation for people in rural and isolated areas may be less affected by location than by socio-economic status, the two variables are often interlinked. In the UAE students in the more remote Northern Emirates and rural areas have access to technical and vocational education through the Higher Colleges of Technology which has campuses in every Emirate in the UAE. However those who wish to pursue a university education need to travel significant distances to one of the three public universities which are only located in Dubai, Abu Dhabi and Al Ain. This lack of convenient access to universities could pose an additional obstacle for disadvantaged male students to participate in higher education. When considering the issue of low male participation in higher education in the UAE it is important therefore to consider that males in the UAE are not a homogeneous group. While Emirati males in general are at risk of not participating in higher education, males from the poorer and, more isolated emirates are at an even greater risk.

Students from the wealthier emirates are also more likely to have attended private schools where the language of instruction is usually English. In Dubai approximately 85% of students are enrolled in private schools and while these cater mainly to the large expatriate population they also include the children of middle-and upper-class Emiratis. The 2007 Trends in Mathematics





<sup>&</sup>lt;sup>5</sup> This is slightly misleading as in Sharjah there are two locally-funded universities, the American University of Sharjah and Sharjah University which many students from this emirate choose to attend. As such they are not opting out of higher education just the federally-funded institutions.



and Science Study (TIMSS), in which Dubai participated as a benchmarking state, revealed a nearly 100 point difference in test scores between government and private schools in Dubai. This testified to a significant difference in quality of education between the two systems. In addition to the benefits of a better quality education, private school students also associate with peers of similar socio-economic status and values. As a result of both the higher quality of schooling and the social capital that accrues from being around more motivated students, national male students who attend private schools are probably more likely to attend higher education than males from government schools.

The first generational status of the vast majority of students in higher education institutions in the UAE is another important factor which is likely to create stratification and barriers to student enrollment and retention. Research in the area of college aspirations and career expectations have used the notion of "social capital" to understand and explain why students with educated parents have an advantage over first-generation students both in education and in socioeconomic attainment. In his article "Forms of Capital" Bourdieu (1986) expands the notion of capital beyond economic capital to include cultural and symbolic capital. The social capital associated with educated parents who understand the importance and value of education cannot be underestimated. Studies have consistently shown that parental educational levels are positively correlated to the educational achievements of their children. Children of college-educated parents have better access to social and cultural capital through family relationships. Consequently, compared to their peers with highly educated parents, first-generation students are more likely to experience difficulty in accessing and understanding information and attitudes relevant to making the right decisions in relation to the importance of obtaining a college degree, which institution to attend and what to major in (Pascarella, et al, 2004).

First generational status is likely to be another major contributing factor for the high no- show (students that are accepted but fail to enroll) rates for higher education among both male and female students in the UAE. Again this is exacerbated in the poorer emirates where years of formal schooling are much lower than in more urbanized areas. In Ras Al Khaimah data gathered on parents' levels of education revealed that on average fathers had 9 years of formal education and mothers had 8 years of formal education (Ridge, 2008).

Males are also more likely to be affected by cultural and social norms that place the burden of financial provision solely upon male members of the family. This is an important characteristic of family expectations in patriarchal societies and a factor that should be considered when attempting to explain the low enrollment rates of men. On exploring reasons for the no-shows among men, a survey conducted by the National Admissions and Placement Office for Higher Education (NAPO) in 2006 found that over 60% of the men who opted out did so in order to pursue income-generating activities. This supports the notion that males are preferring paid employment to higher education, perhaps in order to meet family needs and expectations. In contrast the NAPO (2005) figures for female no-shows reveal that only 1% of females went to paid employment or was seeking work.

## IV. Conclusions

General literature on access and participation in higher education shows that prior attainment (Broecke and Hamed, 2008) and socio-economic status (James, 2001) are two of the biggest determinants of participation in higher education. In addition to these factors, studies on resource-rich countries find that rentier states provide further disincentives to participation in higher education.







In the United Arab Emirates, we can find evidence to support the notion that the poor prior attainment of boys in schools is consistent with low male participation in higher education. With dropout rates for boys in the tenth grade as high as 14% in some Emirates (Ridge, 2008) and girls outperforming boys in all subjects and on standardized tests such as the CEPA, it is clear that the public education system is failing young men. The high dropout rates and poor performance of boys need to be addressed to enable greater higher education participation. For the young men that persist in school past Year 10, the poor quality of English language instruction in particular means that they are ill-prepared for the switch to a full English medium institution. This further compounds the problem and leads to greater male attrition rates in higher education.

The role of the state in job creation and the tacit bargain that is made in rentier states between the citizens and those collecting the rents has resulted in an implicit trade-off that has potentially undermined higher education as a means for social or economic mobility. Evidence from the UAE is consistent with the opinion that males view connections in pursuit of employment opportunities as more potent in achieving social and economic mobility than attainment in higher education.

Distortions in wages and benefits created by a preference for public-sector employment for nationals may have also decreased returns to education (Minnis, 2006). The relatively higher wages and better conditions in the public sector, especially in the military and police, evidently have had some impact on the educational choices that young males make. These two sectors accept males who have only completed high school or less and continue to attract large numbers of males. In order to increase higher education participation rates, public-sector salaries and in particular those sectors which are favored by males, need to reward educational attainment and create incentives for young men to obtain a college education. With regard to socio-economic stratification, it is clear that young men in the northern emirates have higher drop-out and university no-show rates than those in Abu Dhabi or Dubai. As these are relatively less affluent emirates, it is important that policy makers are aware of inequalities so that programs encouraging young men to pursue higher education can be implemented in these areas in particular.

## V. Implications for future research

In general there is a lack of research on the topic of males and education in the UAE. Future research should explore more fully the reasons behind the choices that young men are making with regard to their education. The argument has been made that most young men are studying outside of the UAE for their tertiary qualifications, but the high drop-out rates of students in Grade 10 indicate that a large number of males are not completing high school and are therefore are unlikely to be venturing overseas to study.

Future research should also examine the returns to education at all levels in the United Arab Emirates to determine the economic incentives that have resulted in low higher education participation by males. At this stage it is only possible to conjecture as there is little data upon which to base conclusions and policy prescriptions regarding participation of males in higher education. Throughout the Gulf, the stereotype of the privileged Gulf male who has a job guaranteed for him may not always hold especially in disadvantaged areas such as the Northern Emirates of the UAE. There needs therefore to be more examination of the differences between and within emirates with regard to socio-economic status, family background and parental levels of education in order to fully understand the complexities involved in understanding higher education participation in the UAE.







# References

Abdulla, Fatma (2007). Emirati Women: Conceptions of education and employment. In R.O Mabokela (Ed), *Soaring Beyond Boundaries: Women Breaking Educational Barriers in Traditional Societies* (pp 73-112). Netherlands: Sense Publishers.

Arab Times (2009). Weaker Outlook For Private Sector Employment in 09 http://www.arabtime-sonline.com/client/pagesdetails.asp?nid=28792&ccid=12 accessed April 5, 2009

Beblawi, H., Luciani, G (Eds). (1987). The Rentier State. London: Croom Helm

Becker, Gary (1964). *Human Capital: A theoretical and empirical analysis, with special reference to education*. Chicago: University of Chicago Press.

Bourdieu, Pierre (1986). The forms of capital. In J. Richardson (Ed), Handbook of Theory and Research for the Sociology of Education (pp. 241-58). New York: Greenwood Press.

Broecke, S. & Hamed, J. (2008). *Gender Gaps in Higher Education Participation*, Department for Innovation, Universities and Skills, Research Report 8, http://www.dius.gov.uk/research/documents/DIUS-RR-08-14.pdf accessed January 2, 2009

Buchmann, Claudia, Hannum, Emily (2001). Education and Stratification in Developing Countries: A Review of Theories and Research, *Annual Review of Sociology* 27, 77-102

Carnoy, Martin (1995). Rates of Return to Education, *The International Encyclopedia of Education*, Oxford: Pergamon

Coleman, J.S, Campbell E, Hobson C, McPartland J, Mood A et al. (1966). *Equality of Educational Opportunity study*. Washington, DC: U.S. Department of Health, Education, and Welfare, Office of Education/National Center for Education Statistics.

Fattah, Zeki, Imed Liman, and Samir Makdisi (2000). *Determinants of Growth in Arab Countries*, Paper commissioned by the Global Development Network for the Global Research Project on Explaining Growth

Filmer, D. & Pritchett, L (1999). The effect of household wealth on educational attainment: Evidence from 35 countries, *Population Development Review* 25,85-120

Heyneman, S. & Loxley, W. (1983). The effect of primary school quality on academic achievement across twenty-nine high and low income countries, *American Journal of Sociology* 88, 1162-1194

James, R. (2001). Participation Disadvantage in Australian Higher Education: An Analysis of Some Effects of Geographical Location and Socioeconomic Status, *Higher Education* 42 (4), 455-472

Massialas, Bryon & Jarrar, Samir (1991). *Arab education in transition: A source book*. Garland Publishing Inc

Mickelson, R. (1989). Why does Jane read and write so well?: The anomaly of women's achievement. Sociology of Education 62 (1), 47-63

Ministry of Education- United Arab Emirates (2007). Annual Report on Schools in the Emirate of Ras Al Khaimah, Ministry of Education, Ras Al Khaimah

Minnis, John, R. (2006). First Nationals Education and Rentier Economics: Parallels with the Gulf States, *Canadian Journal of Education* 29 (4), 975-997

National Admissions and Placement Office for Higher Education (NAPO) (2005). Fourth Annual Survey of No Shows, UAE Ministry of Higher Education, Abu Dhabi.







Otero, Manuel, S. (2007). Access to post-compulsory education and training: Economic, sociological and political determinants and remaining research gaps, *Comparative Education* 43 (4), 571-586

Pascarella, E, Pierson, C, Wolniak, G & Terenzini, P (2004). First generation college students: Additional evidence on college experiences and outcomes. *Journal of Higher Education* 75 (3), 249-84

Pritchett, Lant (1996). Where has all the Education Gone? Policy Research Working Paper Series 1581, Washington DC: World Bank

Ridge, N. (2008). *Privileged and Penalized: The Education of Boys in the United Arab Emirates*. (Doctoral Dissertation). Teachers College, Columbia University, New York

Schultz, Theodore (1971). *Investment in human capital: The role of education and research,* New York: Free Press

UNESCO (2008). *Education for All global monitoring report: Education for all by 2015: Will we make it*? Oxford, UK: Oxford University Press

World Bank (2008). MENA development report: The road not traveled, Education reform in the Middle East and North Africa. Washington, DC: Author



