

## UNEVEN AGE-GROUPS CLASSIFICATION, AN ISLAMIC PERSPECTIVE OF A MATURITY INDEX

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Manuscript received December 20, 2024; revised March 3, 2025; accepted April 23, 2025; Published April 23, 2025

### ABSTRACT

*This paper aims to translate evidence on age-group classifications gathered from Qur'an and other authoritative Islamic sources to human life maturity benchmarks. A maturity index is built creating age-groups based in sacred Islamic texts. The typical and most important of the class limit extraction is the example of the age of forty years from the ayah of Surah Al-Ahqaf [46:15]. Age groups start from birth (age 0 years; reference maturity age -15 years) producing respectively upper class limits; infancy (2 years; -13), 0-15 years (15 years; 0), to 40 years (40 years; 25), on duty (63 years; 48), elderly (85 years; 10) and senility (100; -13). The indexation is as follows; (0-15 years – 1 point), (to 40 years – 3 points), (on duty – 5 points), (elderly – 4 points), (senility – 1 point). The predesigned age-group categorization and indexing protocol is applied to the Albanian population creating a reorganization of the CENSUS 2011 data producing indexed maps showing the distribution of age segregated population by district. Maps show real differences in age distributed maturity index as a possible competition force between districts in present and future terms. Prospects of world population similar to the developed index are made in reference to the World Bank standard of population classification, ages 15-64 years. The use of the maturity index makes chronological age and functional status, maturity, a standardized tool, which controls over biases created by each of them separately.*

**Keywords:** age-groups, maturity index, full age, Islam, globalization, Albania

### ABSTRACT

*This paper aims to translate evidence on age-group classifications gathered from Qur'an. Makalah ini bertujuan untuk menerjemahkan bukti-bukti mengenai klasifikasi kelompok usia yang diperoleh dari Al-Qur'an dan sumber-sumber Islam otoritatif ke dalam tolok ukur kedewasaan kehidupan manusia. Sebuah indeks kedewasaan dibangun dengan membuat kelompok usia berdasarkan teks-teks Islam yang sakral. Pembatasan kelas yang khas dan paling penting adalah contoh usia empat puluh tahun yang tercantum dalam ayat Surah Al-Ahqaf [46:15]. Kelompok usia dimulai dari kelahiran (usia 0 tahun; usia kedewasaan referensi -15 tahun), menghasilkan batas atas kelas berturut-turut; masa bayi (2 tahun; -13), usia 0-15 tahun (15 tahun; 0), hingga 40 tahun (40 tahun; 25), masa bertugas (63 tahun; 48), lanjut usia (85 tahun; 10), dan penuaan (100 tahun; -13). Indeksasi adalah sebagai berikut; (0-15 tahun – 1 poin), (hingga 40 tahun – 3 poin), (masa bertugas – 5 poin), (lanjut usia – 4 poin), (penuaan – 1 poin). Protokol kategorisasi kelompok usia yang telah dipersiapkan sebelumnya dan protokol pengindeksan diterapkan pada populasi Albania, menghasilkan reorganisasi data Sensus 2011 dan menghasilkan peta terindeks yang menunjukkan distribusi populasi berdasarkan kelompok usia per distrik. Peta-peta tersebut menunjukkan perbedaan nyata dalam indeks kedewasaan yang terdistribusi berdasarkan usia sebagai kekuatan*

*kompetisi yang mungkin antara distrik pada masa kini dan masa depan. Prospek populasi dunia yang serupa dengan indeks yang dikembangkan ini dibuat dengan merujuk pada standar klasifikasi populasi Bank Dunia, usia 15-64 tahun. Penggunaan indeks kedewasaan menjadikan usia kronologis dan status fungsional, kedewasaan, sebagai alat yang distandarisasi, yang mengontrol bias yang diciptakan oleh keduanya secara terpisah.*

**Keywords:** *Kelompok usia, indeks kedewasaan, usia penuh, Islam, globalisasi, Albania*

## INTRODUCTION

Many age classification models are in use. They change second practical necessity. A good example is the World Health Organization's (WHO) latest World Standard Population which was a necessity in itself depending in longevity shift. The usual reporting from medical institutions in Albania still uses as the upper limit the age category 65 years and older, while the new standard population distribution (%), 2000-2025 configures the age distributions in 5-years age groups with an upper open ended category of 100 years and older (Ahmad et al., 2001). These differences require further standardization. Not just the evolution in time makes changes obligatory but also, for example geography, entails levels of detail like; highest, medium and lowest (United Nations, 1982). Gathering information is goal oriented, making the information systems in their interface function a framework with movable targets fulfilling information needs, struggling between necessity and possibility.

An example of reorganization of age distribution second goal oriented age-groups is the case of computer technology applications. Computers tend to use face recognitions patterns to identify the age of the user and classify it in a predefined age-group. Their use helps companies in their marketing campaigns, security systems or compares the actual stage of skin aging to standardized examples. What we found interesting to our subject is that needs define the construction of age-groups. In one case the age-groups are reduced to three groups; child, young, old respectively 0-20, 21-50 and 51 and above years (Mandal et al., 2017). Another algorithm uses for the same purpose four categories; child, adolescent, adult and senior adult respectively 0-12, 13-18, 19-59 and 60 and above years (Mandal & Kulanthaivel, 2012). Although in most of the attempts to define age through face characteristics were used four age groups cut-offs were not consistent (Jagtap & Kokare, 2016). It seems, technical issues are another factor for different age-groups classifications choosing the best accuracy to practical limitations. The same factors influence health care organizations such WHO (World Health Organization) to rationalize definitions led by specific issues as when an adolescent is a person aged 10 to 19 years inclusive, admitting that other agencies may differ about the same definition (Programmes WHO, 2013b). Sometimes age-group definitions are considered arbitrary but we emphasize as the above examples clearly show that they are build second necessity arising from a scientific question which defines then their boundaries. The reverse may exist for universal referring systems, which can offer predefined age-groups but

Careful examination is necessary not to fall out of their classification context. These variations on age classification no matter how pragmatic it is needs a universal referring model, which for Muslims is the Qur'an. We translated evidence on age-group classifications gathered from Qur'an and other authoritative Islamic sources to human life maturity benchmarks.

## RESEARCH METHODOLOGY

On building an age group distribution the first task is to setup the class limits. The following table 1 describes the final age group classes following the criteria set by the study objectives.

Table 1. Class limits and reference maturity age as perceived from holy Islamic texts

Age phase	Upper class limit (years)	Reference to maturity age*
Birth	0	-15
Infancy	2	-13
2,1-15,0 years	15	0
To 40 years (full age**)	40	25
On duty	63	48
Elderly	85	10
Senility	100	-13

\* Reference maturity age indicates the perceived difference in years from the first time, 15 years of age, a person is considered to have entered maturity. After the age of 63 years the reference age declines as the mental functions decline with clear implications in maturity.

\*\* full age (Qur'an; 46:15)

Following are the texts used as references to determine the age class limits. These categorizations will arise controversy even between representatives of the same juridical Islamic school. We clarify that this classification is done only for simulation purposes and we don't go in further details as they are too technical and beyond of our study goals. An example of critique is the use of the age of 15 years as the cut-off for entering maturity, equally set for boys and girls which further studies can change its gender's characteristics.

There are many verses of the Qur'an about pregnancy and birth. Our index starts at the moment of birth, valued as 0 years old, making such verses not a subject to our classification. *“And (women) giving birth, shall suckle their children two rounds completely, (i.e. two years) for the one who is willing to perfect the suckling. ...”* (Surah Al-Baqarah - 233 - Quran.com, 2019) The breastfeeding is not obligatory and is relative to a mother's choices, child and family interest. But the cut-off of two years is fixed as the first class upper limit. *“And try the orphans until they reach (the) marriageable age. So, in case you perceive in them right-mindedness then pay over to them their riches, and do not eat them up extravagantly and in*

*anticipation of their (attaining) majority. ...*” (Surah An-Nisa - 6 - Quran.com, 2019) The verse marks the cut-off of the first stage of maturity full possession of the wealth she possesses based in two elements, marriageable age and right-mindedness. Quantification of soundness of mind and marriageable age are the next class limit. This is an gender specific individual benchmark. We called for the help of texts transmitted from the Prophet (pbuh).

Allah's Messenger (pbuh) called me to present myself in front of him on the eve of the battle of Uhud, while I was fourteen years of age at that time, and he did not allow me to take part in that battle, but he called me in front of him on the eve of the battle of the Trench when I was fifteen years old, and he allowed me (to join the battle). (Bukhâri & Khan, 1997, Nr. 2664) "On the day that Sa'd passed judgment on Banu Quraizah I was a young boy and they were not sure about me, but they did not find any pubic hair, so they let me live, and here I am among you." (Nasā'ī et al., 2007, Nr. 3460) ... Ibn Abbas said: ... With regard to the orphan and when he is no longer regarded as such, he said: It is when he reaches the age of puberty or attains maturity of mind. ... (Ibn Ḥanbal et al., 2012, Nr. 2685) All three transmissions are considered *sahih* (sound) and without going on details which would better profile the individual entering adulthood we chose the age of 15 years as a cut-off, the presence of the secondary sexual characteristics and the clarification of the Qur'an verse about puberty and maturity of mind. Based on these the age of 15 years is taken as the upper limit of the second class.

The next age group starts at 40, and this cut-off is an important one in this classification retrieved from Qur'an. Other age group classifications use it besides the usual five-year class gap. Qur'an states: *"And we have enjoined on man to show fairest (companionship) to his parents. His mother conceived him under compulsion, and she brought him forth under compulsion, and his pregnancy (i.e., the time he is in the womb) and his weaning are thirty months. Until, when he reaches full age, and reaches forty years, he says, "Lord! Dispense (to) me that I may thank (You) for Your favor wherewith You have favored me and my parents (both), and that I may do righteousness satisfying You, and make me righteous in my offspring. Surely I repent to You, and surely I am one of the Muslims."* (i.e., one who surrenders to Allah)" (Surah Al-Ahqaf - 15 - Quran.com, 2019) The verse equals 'forty years' to the complete maturity or 'full age' and as it is a personal achievement, and responsibility also, it is related to offspring's and parents, two groups where he is found in between and responsible for both.

The best argument to support that forty years of age could be a qualitative change in maturity is that at the this very same age the Revelation of Qur'an started to the Prophet Mohamed (pbuh). The next transmission, one of many, gathers two cut-offs in the life of the Prophet, the beginning of the revelation and his age of his passing away. "The Messenger of Allah (pbuh) received Revelation when he was forty years old. So he stayed in Makkah for thirteen years and in Al-Madinah for ten. And he died when he was sixty-three years old." (Tirmidhī et al., 2007, Nr. 3621) Number forty is important in Islam in relation to the

maturation times on general. It is found related to other phenomena and not just in years but as days or months. As always, these phenomena are related to divine intervention and it's not easy to standardize them. The following transmission extends the use of the number forty to the uterine life of the fetus. "... The creation of any one of you is put together in his mother's womb for forty days, then, he is during that (period) an '*Alaqah*' for a similar period. Then he becomes a '*Mudghah*' for a similar period. Then Allah sends to him an angel who breathes the soul into him..." (ibn al-Hajjāj al-Qushayrī et al., 2007, Nr. 6723)

The next cut-off is chosen from the above transmission which informs us that the passing away of the Prophet (pbuh) is an important stage in every Muslim's life. The age of sixty-three years happens at the same time of the end of Qur'an revelation, which cannot be subject to chance. During last pilgrimage the Prophet (pbuh) addresses his speech to the present fellow Muslims asking them if he has delivered the message, and after they respond 'Yes' he goes on and asks his Lord, 'O God, bear witness!' (Kathir & Le Gassick, 1999, p.280-281). Following is a sentence representative of most Muslim scholars, that in the year 10/632 after completing the Farewell Pilgrimage the Prophet (pbuh) returned to Medina and died on the twelfth of Rabi' I/June 7, 632, 1452 on Monday, and was buried on the night of Wednesday (Fishbein, 1990, p.208-209). The furthest lifespan, at least for our generations is the age of 100 years. Today many people exceed it and their number as a proportion of the whole population is ever increasing. The process of aging is affected by the slow physiological or pathological continuous process of memory and other intellectual faculties decline.

The next verse from Qur'an clearly aligns the oldest age with loss of previous knowledge. *"O you mankind, in case you are suspicious as to the Rising again, then surely We created you from dust, thereafter from a sperm-drop, thereafter from a clot, (i.e., embryo) thereafter from a chewed up morsel in shapely created form and other than shapely created (from) that We make (it) evident for you. And We make to reside in the wombs whatever We decide till a stated term, thereafter We bring you out as young children, (Literally: as a child) thereafter that you may reach full age. And among you there is he who is taken up, (i.e., dies) and among you there is he who is turned back to the most decrepit age, so that even after (some) knowledge, he knows nothing (Literally: he does not know a thing). And you see the earth torpid; then when We send down water upon it, it shakes and swells and grows of every (growth) a delightful pair."* (Surah Al-Hajj - 5 - Quran.com, 2019).

From 'job completion' to the age of senility an intermediate cut-off is possible. In this case we don't find a clear cut, but don't exclude the possibility that there is such a cut-off in Islamic sources. The above ayah is a hint. Before the most decrepit age is a stage which the group made of the most decrepit age people pass. The end of the duty time can't be compared with the end of intellectual faculties. There is a huge difference, when talking of maturity, intelligence and responsibility they don't belong to a unique class. Considering it a movable target depending in specific generational life expectancies, wealth, education, professional

activity and medical interventions, we chose to refer to our times standards. Nowadays life expectancy is possible to calculate and reflects health and wellbeing of a population. An estimate of the best life expectancy in the world is that of Japan, 85.3 years and a good reference to be a cut-off for maturity age groups class boundaries (The World Factbook, 2019). Developed countries are an example of the best expectations for a long life, although the gain or the continuity in this process is variable from country to country of the same group. While developed countries that experienced declines in life expectancy during 2014-2015 compensated with robust gains in 2015-16. For example, the gain between 2010-16 was for American women was 0.19 years and men 0.04 years (Ho & Hendi, 2018). Differences are much larger in global terms, while the global population has the average life expectancy of 72.0 years; countries like Japan expect that half of the babies born in 2007 are predicted to live to their 107<sup>th</sup> birthday (Global Health Estimates: Life Expectancy and Leading Causes of Death and Disability, 2019) (Gratton & Scott, 2016, p.30).

There is a huge gap in every aspect between 63 year of life and the 100<sup>th</sup> one. These differences can be considered also from an Islamic perspective. A cut-off for the last age-group is the sole not to be explicitly established, by are mentioned as a condition expressed as 'decripit age', which unlike other age segments, well-established by proper numbers remains prone to generational changes in longevity. It is not the age to decide the class limit, it is the condition that determines it, and seems fair enough compatible with present developments in increased life expectancy. The other particularity is the other condition where the person reaches the moment 'he does not know a thing.' He has lost previous knowledge and is quite far away from the sixty-three-year-old one that is at the peak of his mental activity, combining experience and the potential of his maturity making indispensable to split this age segment in two. In one study the age of people with dementia first diagnosed by different specialty doctors (n = 1,132), as family practitioner, internist, geriatrist, neurologist, psychiatrist ranged from 82.0 to 85.7 years (Leibing & Cohen, 2006, p.95). Not only dementia reaches in rich countries 30 % of the 85-year-olds but also further subdivision in this age group is required based in specific new or unknown patterns (Boscoe, 2008). Based in this data we decided an informal cut-off at 85 years, at 70 years, the age intellectual individuals as professor usually quit academic activity. This are prone to change as critique is well appreciated considering that our goal is a simple simulation.

Following Figure 2 is a graphical presentation of the projection in a hundred-year segment of the age groups of the 'maturity index' based in Islamic sources. The line thickness represents the average number of people by year of a certain real population (Albania, CENSUS, 2011) and as is expected it losses it thicknesses by the passing away of the older ones. The graph resembles a whip. The blue sector represents the apex of a population maturity reaching the qualitative maturity at age till sixty-three, counting in experience and maturity. The yellow sector represents also the combination of population fascia of age much different but of similar 'maturity'. The 0 level is the theoretical, maybe changeable by sex,

when the individual becomes legally responsible. Below that resides the immature population of the very young but with increasing potential and the elderly ones declining in their memory and intellectual abilities. By itself the line is also a population pyramid.

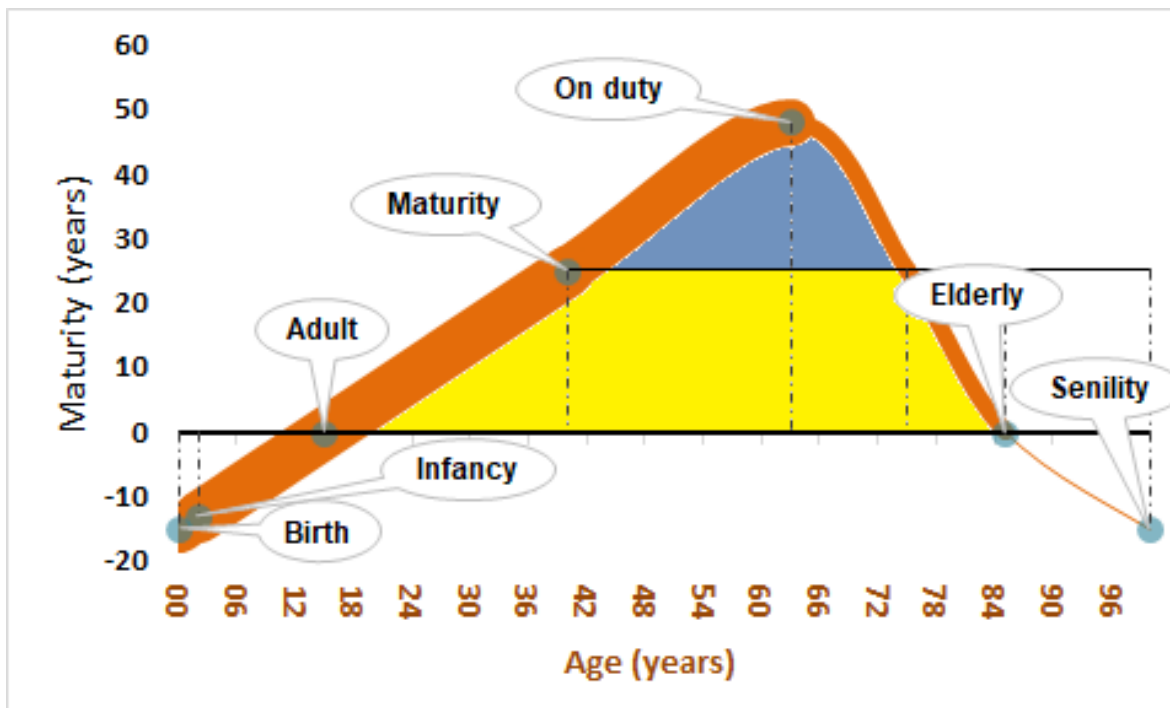


Figure 1. Age, age groups and population distribution referring to the ‘maturity index’.

## RESULTS

### A case, Albania

The population of the ALBANIA, CENSUS 2011 is chosen because of availability and familiarity with data (Censusi i Popullsisë Dhe Banesave 2011, 2019). First, the distribution of CENSUS population by age group and district are converted to the suggested maturity index age groups. Following (Tab.2) is calculated the percent distribution by age group and in brackets is the calculated indexation. The index is as follows; (0-15 years – 1 point), (to 40 years – 3 points), (on duty – 5 points), (elderly – 4 points), (senility – 1 point). Two parameters are taken in consideration while assigning points to age groups, experience and the effort to find an index number representative of the whole age group. For example, the ‘senility’ group contains individuals with different indexing marks which can range from 0 to five, but the whole group is indexed as 1. The indexation is built just for simulation purposes and the evolution of maturity is taken as a straight line form point to point, which practically is not true.

Table. 2 Percent distribution by age group, district and respective indexed values

Age	0-15 years	to 40 years	on duty	elderly	senility	total indexed
<b>Total</b>	<b>20.7* (20.7)**</b>	<b>37 (111)</b>	<b>31 (155)</b>	<b>10.5 (42.1)</b>	<b>0.8 (0.8)</b>	<b>329.6</b>
Berat	19.6 (19.6)	33.8 (101.4)	34.5 (172.6)	11.2 (44.7)	0.9 (0.9)	339.2
Dibër	25 (25)	38.7 (111.6)	27.4 (136.8)	8.3 (33)	0.7 (0.7)	311.6
Durrës	21.5 (21.5)	37.2 (111.6)	30.6 (153)	10 (40.1)	0.7 (0.7)	326.9
Ebasan	21.1 (21.1)	38.4 (115.3)	30.3 (151.4)	9.4 (37.6)	0.8 (0.8)	326.2
Fier	19.9 (19.9)	34.1 (102.2)	33.9 (169.7)	11.2 (44.7)	0.9 (0.9)	337.4
Gjirokastër	16.7 (16.7)	31.9 (95.8)	35.4 (176.8)	14.7 (58.7)	1.3 (1.3)	349.4
Korçë	18.5 (18.5)	34.3 (102.8)	33.2 (166)	13 (52)	1.0 (1.0)	340.3
Kukës	27.7 (27.7)	40.1 (120.3)	24.2 (120.9)	7.4 (29.6)	0.6 (0.6)	299.1
Lezhë	22 (22)	36.7 (110)	30 (150)	10.5 (42)	0.9 (0.9)	324.8
Shkodër	21.6 (21.6)	35.1 (105.3)	30.8 (154.2)	11.6 (46.3)	0.9 (0.9)	328.3
Tiranë	20 (20)	40.1 (120.4)	29.6 (148)	9.6 (38.2)	0.7 (0.7)	327.3
Vlorë	18.8 (18.8)	33.9 (101.6)	33.4 (167.2)	12.8 (51.3)	1 (1)	339.9

\* The figure represents the percent value of the group to the total.

\*\* The figure represents the indexed value of the group to the total, for example the ‘on duty’ group makes 31% of the population \* 5, the index value, makes 155 points as a group.

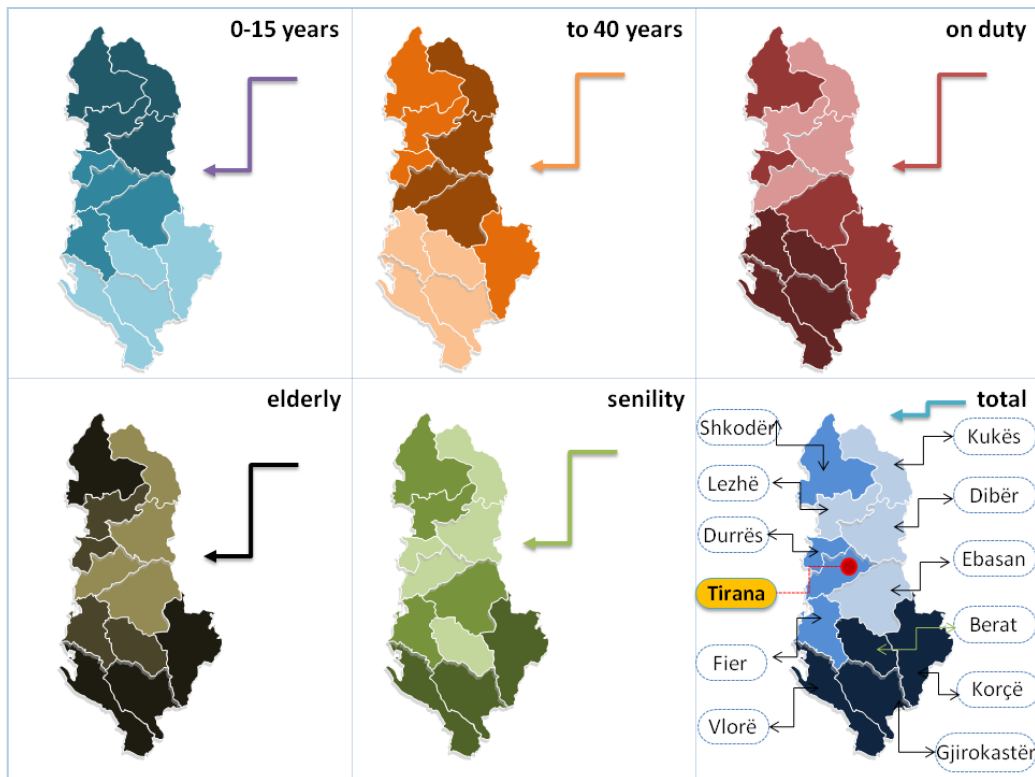


Figure 2. Age groups ‘maturity index’ by district



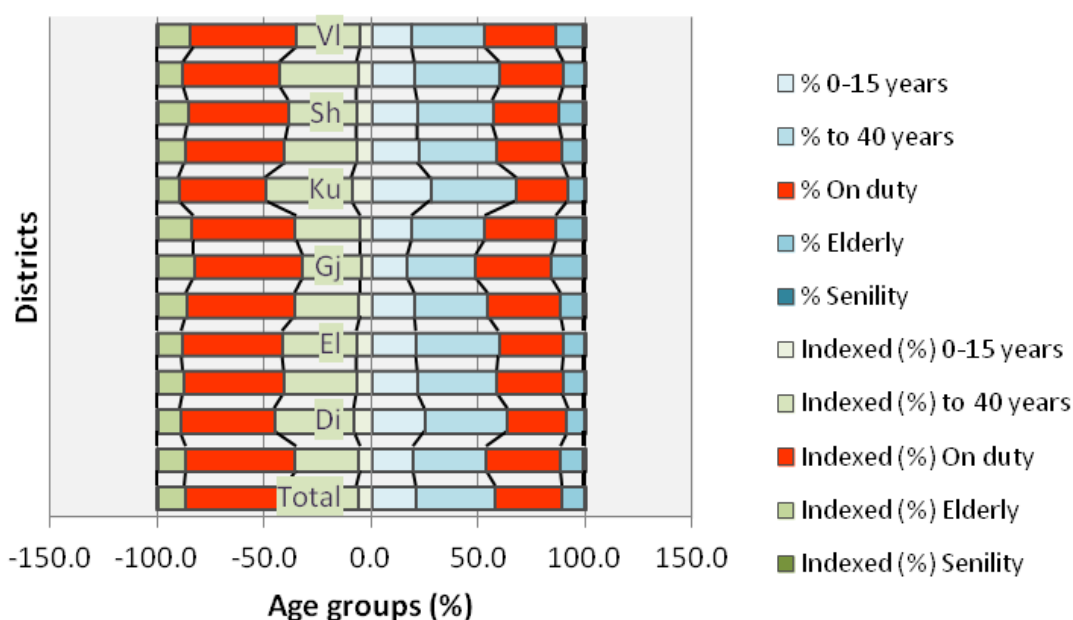


Figure 3. Weighted 'on duty' group 'indexed value' to its percent distribution by district

The red belt left Figure 3 represents the weighted of the 'on duty' group 'indexed value' to its percent distribution, right, by district.

### A global perspective

The available data to conform our purpose in global terms are the population aged 15 to 64 years as a percentage of total population retrieved from The World Bank Group database. We selected the uppermost and lowermost countries values at the base year 1960 and the last available year, 2017. Population ages 15-64 (% of total) is the merging of our two indexed from 15 years to 63 years, approximatively. Practically it gathers the whole boosting part of the line diagram associated with maturity growth from the first year the individual is considered responsible to the apex after which decline follows.

Table 3. Selected uppermost and lowermost countries total population between the ages 15 to 64 as a percentage of the total population (Data Catalog, 2019).

Country Name	1960	2017
United Arab Emirates	51.9	85.0
Qatar	55.7	84.8
Bahrain	55.7	77.9
Macao SAR, China	53.2	76.9
Kuwait	63.4	76.6

Oman	53.4	75.8
Mozambique	54.3	52.1
Tanzania	51.8	52.0
Somalia	54.4	50.8
Angola	52.7	50.8
Congo, Dem. Rep.	53.7	50.7
Chad	55.2	50.4
Uganda	51.5	50.1
Mali	56.9	49.8
Niger	50.6	47.2

The same data are presented graphically but including the whole data set and ranked top to the lowest, with reference to 2017 values.

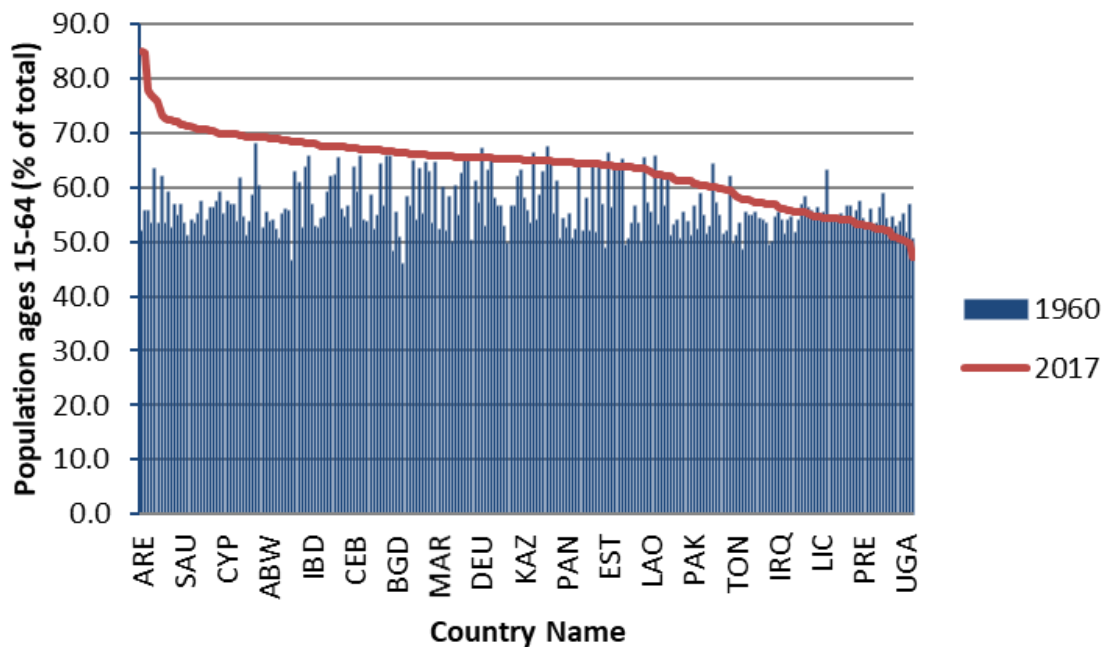


Figure 4. Total population between the ages 15 to 64 as a percentage of the total population, 1960 and 2017

Most of the religious obligations and recommendations are difficult to be scientifically justified. Their value is well-accepted from respective believers' groups, but the variegation of religious beliefs and the many interpretations within the same belief system in addition to the impossibility of scientifically correct evaluation makes this topic permanently controversial. A fair question would be 'do people act in accordance with those recommendations'? The answer is simple enough and widely accepted 'yes they do'. Many

of the practicing community members respect thoroughly the commandments and the rest are at least aware of them. In a certain way those practicalities are an external expression of their beliefs. Well-known examples with massive implications in population are the fasting of the month of Ramadan by Muslims, the prohibition in the form of commandment in Christianity 'You shall not commit adultery' or the standards of food defined as kosher by Jewish dietary regulations. People can argue in their value for practical purposes but this dissension not for a moment can negate the implications of those actions in their lives. Nobody can negate the physiological changes the human body makes during fasting of Ramadan making their study as obligatory as every other agent who intervenes with human body and mind. The indexing we modulated attempts to reflect the age group classification in the process of the human's maturity as a projection originating from Muslim sacred texts, first the Qur'an and transmissions from the prophet of Islam, Mohammad (pbuh). Maturity and the respective categorization of a persons has wide implications in his/her life's physiological and psychosocial aspects.

## DISCUSSION

Chronological age or functional status can be quite different categorization tools depending in the study objectives. Life stage also can serve for the same purposes. Maturity is a notion almost impossible to have a unique definition. In Islam the notion of maturity is well-established and used through all aspects of practical and spiritual life. This assumption permitted us to find cut-offs based on sacred texts of Islam about maturity, and it's increasing or decreasing values references making possible to build a maturity age index. The most important finding is the assumption based on a verse of Qur'an that the 40 years of age are a practical cut-off about maturity which would be more difficult to accept from actual standpoint of actual scientific evidence compared with other Islamic induced age cut-offs. For example, the age of the secondary sexual characteristics expression has almost the same connotations on pubertal growth in Islam and scientific medical literature. Maturity index uses chronological age to be projected and summarizes functions of life stage and functional status. This unique feature makes maturity index an interface of the above three categorizations serving as a standardization tool to control over biases of each one of them. A derivative from Qur'an's literature index, expressed on a personal interpretation remains to be revisited in case of author's biases.

Age groups are widely used and their analysis requires interdisciplinary research. On this optic medicine would be the most tolerant about cut-offs as always considers individual traits which can be quite different and economic field is of the strictest on age segregation. When speaking of access to financial products the measurement of financial inclusion arbitrates a lower limit of age on this purpose of fifteen years of age dividing regional or world population in two groups, 15+ years and less than fifteen years of age (Demirguc-Kunt

et al., 2018, p.2). In a classification of hand bone age, the medical point of view considered late puberty for females 13 years to 15 years of age and for males 14 years to 16 years of age (Gilsanz & Ratib, 2005, p.17). Both systems are correct in their pragmatic choices. A world economic prospect would be senseless to differentiate the individual aspects of individuals as would be totally wrong not to consider them when analyzing bone maturity. In fact, Islamic fonts do the same taking the age as an absolute cutoff in some cases or pubertal growth in others. The importance of the age-group 15-64 years as the healthiest and active part of the population made possible for us when adding the forty years' cut-off while creating the maturity index, which can be translated as the potential a population has to compete with others in present and future terms. For example, the actual situation of the southern Albania in terms of active population are much better than north at actual measurement but north has a potential growing related to younger strata of population in increased proportion compared to south, if the situation on emigration and other demographic determinates doesn't change. The power of indexed maturity changes when pondered (Figure 2).

The ayah mentioning the age of forty as full age positioning the individual between parents and offspring, and beyond the mystical and spiritual aspects of the holy book the description fits perfectly with the definition of dependency ratios. The same happens with increasing age. Both systems consider the transition in old age as a continuum, Islam having it taken in consideration from Qur'an revelation while the term of gradual retirement is quite new for the actual system (France, 2005, p.13). In case the life of a person extends to the 100th year his physical ability will gradually reverse and as a young adolescent entering while schooling starts to work part time also the aging person loses part of his potentialities gradually, while retirement is an abrupt interruption of professional life. Less work hours and intensity increasing by age would be more reasonable than the immediate stopping for healthy subjects and more humane in case of retirement age extension dominated by social security political failures. Islam leaves open the opportunity of contributions while aging as the milestone life events are realized and the rest depends on personal characteristics, reminding of the declining mental and physical power with age. To mention, is a not so evident structure at first sight, in the ayah when three groups are scrutinized, the person, his children and parents. At the age of forty, while children progress to a certain maturity level their grandparents lose some points making the whole three categories system to continuously compensate and saving a certain level of maturity. When a child reaches maturity the individual tends to enter the full age, an increased capacity to face the challenges of the young adult, a more complex situation than childhood and the growing old parent.

The next cutoff of 63 years based in the end of revelation and the Prophets (pbuh) duty as a messenger has its similarities on the retirement age of actual pensions system. For OECD countries force exit age from labor market was 64.2 years for men and 63.3 years for women (France, 2005, p.14). This situation is expected to change as the case of the age Social Security benefits in the USA requires 66 years for workers aged 62 in 2018 (O.E.C.D., 2019,

p.20). This opens a dialog box to study previous and upcoming generations in relation to the specific age of 63 years. In an Islamic perspective would be interesting to analyze the timelessness Qur'an's perspective to temporary events.

In a fast changing populations dynamics and global events of globalization, first the economic and later the sociopolitical and demographics are expected to evolve. The example of virtual teams which are an unprecedented working pattern and knowledge management as new business drivers would be in need of models offered from differing cultural and religious perspectives (Ellis, 2005, p.3) (Friedrich & Friedrich, 2017, p.18). Also old stereotypes need to be shifted to more realistic ones as the case of the Muslim women participation on the labor force. Literary works on working women give a totally different picture on their contribution as the Ibn Ṭūlūn's treatise on women spinners or the Damascenes Ibn al-Mibrad (d. 909/1503) about women who work the spindle (Richardson, 2012, p.130). Further characteristics on gender, health and disease, economics of war and peace and social events would be a next step in studying them through the optic of the statistics basics as the age-groups construction, this time with a religious reference. We continuously must be aware of the age-groups usage for technical or pragmatic purposes which seem unreasonable to the lay public. A similar example is the decision of the American Academy of Pediatrics to an upper age limit of 21 years, and noting it can be extended in case of person with special health care needs (Hardin et al., 2017).

## CONCLUSIONS

If accepted the proposed tool can serve as standardized method of age-group classification, bringing the concept of uneven classes on measurement. The evaluation of the maturity of a population taking in account chronological age and the age-group contribution controls over biases created by each of them separately.

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