ON COMMUNITIES SIZE AND REMOTENESS: THE ATTRACTIVENESS OF SMALL AND REMOTE COMMUNITIES IN ICELAND COMPARED TO THE LARGER AND MORE CENTRAL ONES

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ABSTRACT: There are quite a few examples in Iceland of people living in isolated and sparsely populated communities, both along the coastline and in inland valleys. Those who live elsewhere, particularly in larger and more successful communities, have sometimes maintained, or at least insinuated, that those people must be trapped in their traditional environment. But can we be sure of this? According to Roback (1982) people's migrations and choices of residence are influenced by amenity value and quality of life. It is a well-known fact that we do not all have the same tastes, needs and wishes. Therefore, the municipalities or individual communities within each country should differ, as Tiebout (1956) argued. Such theories might, for example, indicate that a strong desire or need for close proximity to a varied, wild and untouched natural environment pulls people towards remote and sparsely populated communities and prevents them from moving away.

   In this article, we investigate the different wishes and priorities of people inhabiting different regions in Iceland, focusing on residential conditions with special emphasis on the difference between inhabitants of remote and sparsely populated regions and those who live on the fringe of the capital area. The analysis is based on data from a survey of more than 6,000 respondents conducted in 2016 and 2017.

1. INTRODUCTION

Approximately half of the people now live in cities and the number keeps growing (Florida, 2008). People will, however, continue to live in small towns, villages and the countryside despite the expected rapid growth of cities (Goldstone, 2010).

In Iceland, the rapid growth of the capital area has been conspicuous, and in recent years the neighbourhoods of the South Peninsula, the South-West region and the West-South region have been growing rapidly and indeed faster than the capital area in the past few years. A distinct pattern has emerged in the South Peninsula region during all of the 20th century and into the 21st with a growth rate approaching that of the capital area and indeed surpassing it after the end of Second World War (Figure 1). In this regard, two events are of critical importance; that is, firstly, the arrival of the armed forces and, secondly, their subsequent departure.
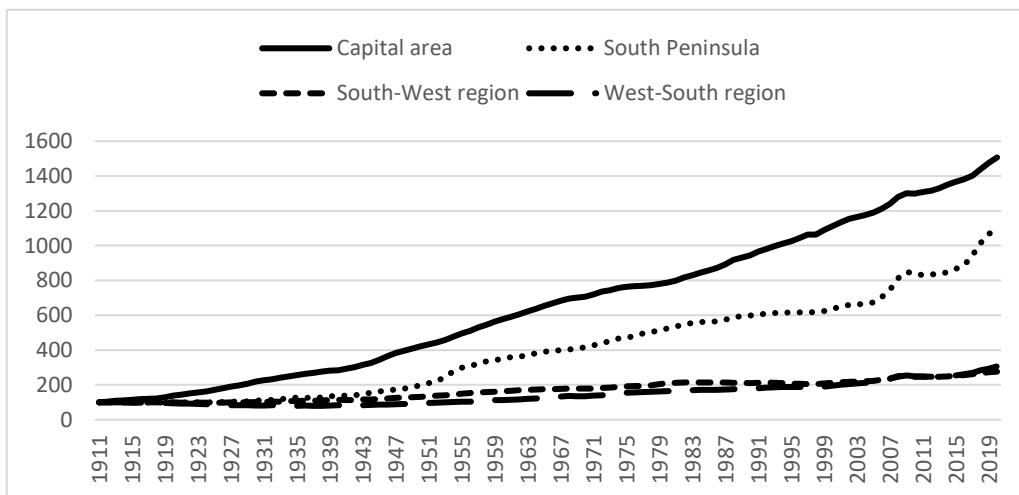
Figure 1. Population Growth in the Capital Area, South Peninsula, South-West Region and West-South Region[1] During the Period 1911-2020. The Index Base is the Year 1911. Source: Statistics Iceland.

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[1] The South and West include only areas in closest proximity to the capital. In the South it is the district of Árnessýsla (here "West-South region") and, in the West, the district of Mýra- and Borgarfjarðarsýsla (here "South-West region").

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Communities can be surprisingly resilient in very sparsely populated and isolated districts (Table 1 and Table 3). Such locations could have been abandoned long ago, for example, on the basis of critical mass, where a minimum level of population is sometimes regarded as a necessary prerequisite to sustain a viable community. Nevertheless, according to Statistics Iceland, a large number of people live in sparsely populated and remote locations, far removed from a significant service centre, let alone the capital area, which is by far the strongest service provider in Iceland. It is sometimes suggested or implied in the public debate in Iceland that those people are trapped in their traditionally remote surroundings and that the most humane approach would be to assist them in moving away – preferably to the capital area.

But is it justifiable to transfer one person's preferences to another? People are known to differ in their wishes and expectations for the kind of future they want. In economics, it is pointed out that preferences vary from one person to another, or else suits, dresses and other items would all be of one colour and style.

It should be noted, however, that the remote regions in Iceland does not include any Indigenous population as in many other countries around the world (Taylor, 2016). It makes Iceland an interesting case internationally for the development of remote areas.

Theories and conclusions based on empirical research have been presented to the effect that various conveniences, quality of life factors (QoL factors), as for example public services, influence people's choice of residence and region (Tiebout, 1956) as well as subjective aspects such as climate and attractive natural surroundings (Graves, 1979; Roback, 1982) or pollution and crime levels (Blomquist *et al.,* 1988). Besides, it has been suggested that different communities should inhabit each country, even displaying stark distinctions to maximise people's well-being and fulfil diverse needs and wishes (Tiebout, 1956). This contributes to highly valued diversity in Iceland's international competition for inhabitants.

This article will examine whether attitudes relating to various quality of life factors, such as proximity to diverse nature, are significantly stronger and more decisive among people living in remote locations than among those residing closer to the capital area. Noted the hypothesis, based on the above research, is that the majority of those who live in remote or sparsely populated areas and within or close to spectacular scenery prefer their current location to a densely populated urban environment, more distant from diverse nature. Thus, it is neither a nostalgic attachment nor

financial constraints that tie people to the remotest and most underpopulated provinces, but certain inherent attributes they prefer to the success and attractions of other regions. Similarly, those who live in or close to the capital area, with its growth and prosperity, have completely different preferences regarding their immediate neighbourhood; in that they prefer urbanity, varied services, diverse employment opportunities and even a fast and direct route to other countries.

In a comparable manner, we could maintain that diverse communities in various parts of the country have encouraged a certain natural selection of inhabitants. Those who live in remote, small and possibly isolated communities have completely different needs and wishes than those residing in large urban environments close to the capital. Both groups happily accept their respective situations when all the pros and cons have been taken into account.

Thus, the research question could be phrased in the following manner: Which QoL factors appeal to the inhabitants of small, remote and possibly isolated communities in Iceland?

Another parallel question could be: Which factors appeal to the inhabitants of densely populated, easily accessible communities in the fringe of the Icelandic capital area?

The analysis is based on an extensive residents' survey conducted in 2016 and 2017 in all regions of Iceland except the East, North-East and the capital area. Just over 6,000 responses to the survey were submitted.

The article is constructed in the following manner: First, the origin and purpose of the research are presented as has been done in the introduction to the article. Next, some descriptive statistics will be outlined in the chapter on the main theme. Then, the data is described as well as the method of its collection. The final chapter contains an analysis of the results and has two subdivisions: First, a descriptive statistical analysis is carried out with respect to the survey data and then a regression analysis of the data is conducted.

2. EARLIER RESEARCH

Before discussing earlier research on the impact of amenity value on people's choice of residence or relocation in general, the concept deserves a closer look. Amenity value is often a somewhat hazy concept but has, nevertheless, been defined earlier as comprising *"local benefits which enhance public welfare without their market value being paid by*

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the residents. Various environmental attractions, free services or, indeed, social activities have been classified as amenity values. The concept of dis-amenity has also been under discussion; that is, local aspects which detract from residents' well-being without compensation" (Karlsson and Jóhannesdóttir, 2010). This is a somewhat broad definition; thus, Brueckner (1999), cited by Ahumada *et al.* (2020, p. 56), divided amenity value into three categories. Brueckner's definition, which may be helpful in this context, identified the amenity value classes as nature (climate and landscape), historical relics (monuments and buildings), and man-made amenity value (private and public goods). It is easy to spot the connection with natural attractions and historical relics, but man-made amenity value may involve pollution, crime, internal feuds and corruption (negative aspects) and, alternatively, competent public services, good community, works of art and public parks, to name a few examples.

In their simplest form, the theories of economics on the incentive for interregional migration focused on regional wage differentials (Hicks, 1932; Sjaastad, 1962). People were attracted to high-wage areas and left low-wage areas. As a result, wages went up in low-wage regions and down in high-wage regions, always assuming that the law of diminishing marginal returns applies in production and on the labour market. Moreover, a gradual balance is achieved with wages becoming the same in all parts of the country, and thus the incentive for relocation ceases to exist. It soon became clear that something was missing from this postulate because regional disparities in wages appeared to persist despite limited migration and close to equilibrium in interregional migration. This eventually resulted in alternative approaches such as the theories on amenity value.

Musings on amenity value within the discipline of economics are often traced back to (Tiebout, 1956) who focused on the services of local administration (e.g., municipal councils) as amenity value. In part, his deliberations revolved around people being diverse, with different needs, wishes and aspirations and consequently, divergent communities were needed to ensure that as many individuals as possible could enjoy fulfilled lives where most of their wishes and preferences were met.

Later Graves (1979) concluded that a pleasant climate represented an amenity value and Blomquist *et al.* (1988) added that crime and corruption comprised a negative amenity value.

Roback (1982) demonstrated that amenity value could be reflected in either wages or property (or land) prices and possibly in both. It had been argued earlier that land or property prices accumulated amenity value and

Roback (1982), therefore, attached the wage-link to this academic field. She formulated a distinction between values of this type which yielded profits to industry and those that came at a price and even constituted a significant cost. Pleasant weather could be an example of the former and clean air of the latter. Pleasant weather boosts demand in some industries; bad weather, however, increases their costs. Social aims towards high air quality can, in the short term (and, possibly, also in the long term), become a costly burden on industry, for example, if a green tax is imposed to attain this objective.

Using an equilibrium model in a closed two region economy, Roback argued that "housing prices are the sum of wages and amenity value" (1982, p. 1266). Thus, if the amenity value is high (or rising) in one region wages are lower (or falling) there than in the other region, identical in every respect except for a zero-amenity value. Similarly, housing prices would be higher in the region of higher amenity value if wages were the same in both regions. Then the impact of the amenity value could be divided between housing prices and wages, but the total impact would always remain the same. In this context, geographic imbalance can become a stimulus for migration; for example, if local pollution increases, but housing prices and wages remain unchanged, people will move from the polluted location to a cleaner environment. Such a course of events either brings up wages in the polluted location and/or drives down housing prices in the polluted area and lowers wages/and or increases property prices in the region of a cleaner environment. Roback (1982) tested this hypothesis using empirical data and was able to demonstrate an impact on wages, whereas the effect on housing prices was less convincing evidence.

Research is still being conducted with regard to amenity value and its connection with choice of residence and migration. A study by Falck *et al.* (2018) is a good example of this, as it outlined how culture is in fact, an amenity value and thus works as a magnet, especially among people with higher education. The research was based on data from Germany from the period 1975-2010. Then there was a recent study by Letdin and Shim (2019) of a more traditional kind, focusing on the conflict between either working close to a strong labour market or in a location of high amenity value. The study showed a statistically significant difference according to gender, education, family structure, and whether people owned their apartment. It was seen as of particular interest that families where women make a central contribution, working outside the home and with older children, preferred to live near urban centres with high amenity value. Also, that childless women who worked outside the home

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lived fairly close to the place of employment regardless of whether the city in question had a high or low amenity value. In the former case, proximity to amenity value matters more than workplace location, whereas the converse applies in the latter case.

Ahumada *et al.* (2020) were, however, pursuing similar considerations as in this present paper, stating that "our preferences vary". Their research was conducted in Chile and confined itself to large and small cities. The authors concluded that small cities with a pleasant climate enjoy the residentially attractive benefits of less pollution and fewer crimes than large cities. They also found that people varied in their tolerance of climate conditions (temperature and precipitation) and crime and were attracted to public parks at varying levels.

In their review of previous research Ahumada *et al.* (2020, p. 56-58) state that most empirical studies originate in developed countries, but hardly any such research exists in the developing world. They list research from Britain (Maddison, 2001; Rehdanz, 2006), Italy (Maddison and Bigano, 2003), the US (Rappaport, 2007), Chile (Iturra, 2018), as well as one research project which covered 67 countries, some of them in the developing world (Rehdanz and Maddison, 2005). A study from Ireland also deserves mentioning (Ferreira and Moro, 2010) as well as another from Germany (Falck *et al.,* 2018). It should also be pointed out that no empirical research has been conducted in sparsely populated but geographically large countries such as Iceland. Besides, apart from Ahumada *et al.* (2020), no attempts have been made to compare different communities within the same country, and there has been no research into the difference between small urban communities on the fringe of large cities, on the one hand, and remote and isolated and/or very sparsely populated communities, on the other, as is being conducted in the present study.

3. THE MAIN THEME

In Iceland, there are several sparsely populated and isolated locations, both in inland valleys and along the shoreline. Urban centres were counted and categorised by size in 2019 and 2011 (Tables 1 and 2). A total of 18 urban centres were found to have 46-100 inhabitants and 44 had 101-500 inhabitants (Table 1). It should be noted that urban centres with populations of 500 or fewer inhabitants must be regarded as very small. Nevertheless, these constitute more than half of the 107 urban communities in Iceland.

Table 1. Number of Towns and Villages by Size Category and Region in January 2019. Source: Statistics Iceland.

Population	South region	West region	North region	East region	Total
46-100	7	4	6	1	18
101-500	10	15	15	4	44
501-1000	5	4	3	3	15
1001-10.000	11	4	4	4	23
< 10.000	6		1		7
Total	39	27	29	12	107

Comparable data were collected for the year 2011 or 9 years earlier (Table 2). This shows some movement between size categories, but none between urban centres larger and smaller than 500.

Table 2. Number of Towns and Villages by Size Category and Region in January 2011. Source: Statistics Iceland.

Population	South region	West region	North region	East region	Total
39-100	9	4	6	1	20
101-500	9	15	14	4	42
501-1000	4	3	4	3	14
1001-10.000	12	5	4	4	25
< 10.000	5		1		6
Total	39	27	29	12	107

To provide some indication as to the premises for size categories of rural municipalities, the approach chosen was to retrieve information from data on the website of Statistics Iceland by examining the population of Iceland, classified according to postal codes and then adding up postal codes with a rural definition (Table 3).

Table 3. Number of Rural Communities by Size Category and Region in January 2019. Source: Statistics Iceland.

Population	South region	West region	North region	East region	Total
4-100	4	12	7	8	31
101-500	8	4	5	2	19
501-1000	3	1	4	1	9
1001-10.000	2	1	0	0	3
< 10.000	0	0	0	0	0
Total	17	18	16	11	62

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The flaw in this method was that some of the rural postal codes could contain small urban centres listed in the tables above. The rural municipalities of Árborg and Borgarbyggð are cases in point. Besides, some of these are so large that they convey the false impression of several rural communities; examples of this are the rural postcodes of Borgarnes, Egilsstaðir, Hella and Selfoss. It does not detract from the validity of these numbers, however, to emphasise the smallness of these communities, because we note that 50 out of those 62 communities have 500 inhabitants or fewer. Half of them is within the range of 4 to 100 inhabitants, making this a conspicuously large portion of communities in a country of such a small population as Iceland.

4. DATA AND METHODOLOGY

A detailed coverage analysis of the data used here and the method of its collection has already been conducted, both in the first report based on the survey (Karlsson, 2018) as well as in the latest publication (Karlsson, 2020). Readers are advised to consult those sources for further information. As noted there, the survey included five out of eight regions of Iceland: Northwest, South, South peninsula, West, and Westfjords. Those five regions were divided into 19 sub-regions (Figure 2). The capital area, Northeast and East, was not included (Not colored in Figure 2). The capital area is on the southwest coast of Iceland. Due to bad transportation system, the Westfjords (Northwest corner) is comparable to the Northeast area when it comes to remoteness and isolation with respect to the proximity to the capital area. Note that Akureyri, the second largest central business district of Iceland, is located in the far north of Iceland and that makes the Northeast area even less isolated and remote with respect to the access of more varied service and culture events.

It should be recapitulated, however, that the data processed resulted from two questions. The former, focusing on current status, was: *"What is your opinion of the status of the following circumstances/policy areas in your municipality? Please check as applicable and answer all items. Please answer neither/nor if you have no opinion."* Then 40 different items were listed (Table A1) and respondents asked to choose between *very good, rather good, neither/nor, rather bad*, and *very bad.* The latter question, focusing on importance, was: *"Which of the following circumstances/policy areas do you feel are of low or high importance for*

your continued residence in the municipality? Please check as applicable and answer all items. Please answer neither/nor if you have no opinion."
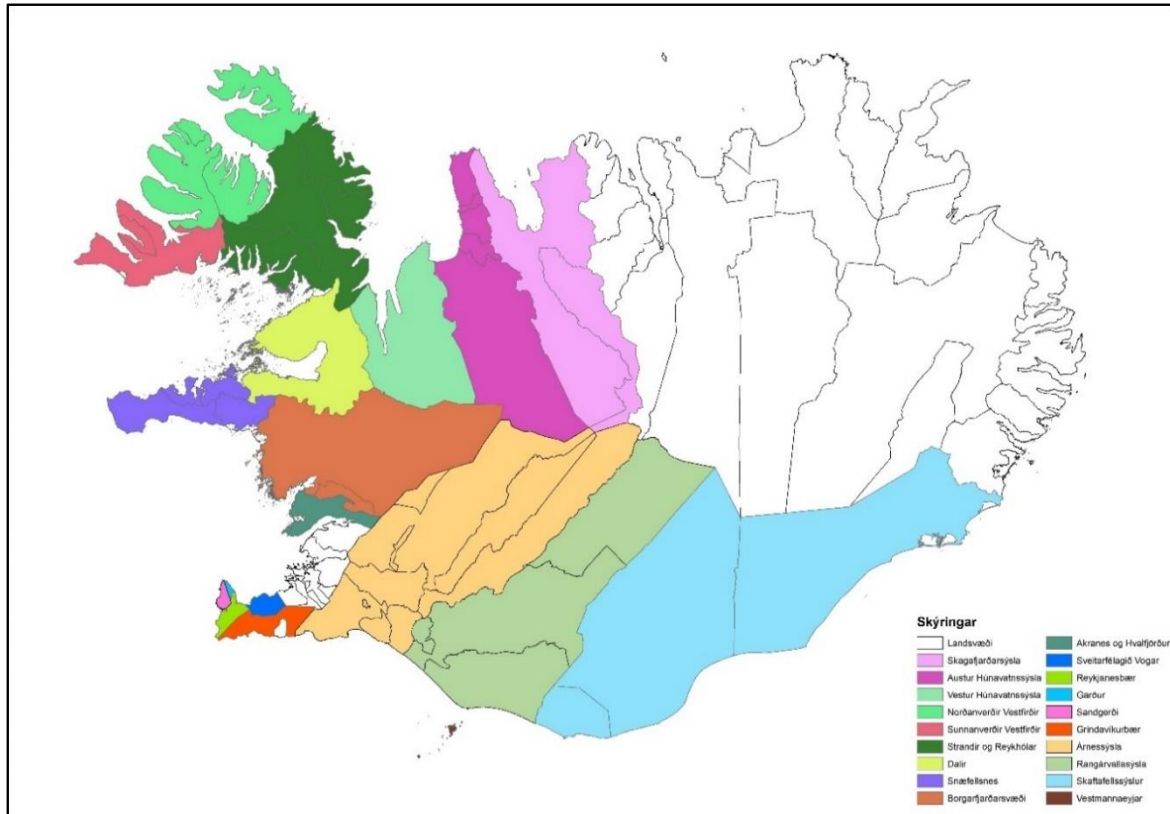
Figure 2. The 19 Regions of the Regional Residence Survey in Iceland 2016 and 2017. Source: the Author.

The respondents were offered the following choices*: very much, rather much, neither/nor, rather little*, and *very little.* [2]

Based on the questions, two subsequent methods were used; first, a descriptive analysis was applied to assess whether the data contains the

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[2] In the statistical processing of the two questions, the answers were graded. If a respondent checked *very good*, a grade of 5 was given. 4 if *rather good*, 3 if *neither/nor*, 2 if *rather bad,* and 1 if *very bad*. Thus, the averages can be interpreted accordingly. The same scale was applied with regard to *importance*, where *very much* earned the grade of 5, *rather much* 4, *neither/ nor* 3, *rather little* 2, and *very little* 1.

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anticipated trend; that is, a statistically significant correlation between distance from the capital area and the importance of local conditions for the participants' future residence. If this is the case, it serves as a further confirmation that people choose to settle on the basis of special local conditions, if the importance of the settlement circumstances correlates with a particular condition. Thus, if a certain factor is not important with regard to future residence, the status of that factor is of low value. In this case, the converse should also be valid; if importance is high, the condition is highly favourable. All this must then be considered in comparison with other parts of the country, in which case a sequence such as above should emerge with the data being grouped in a linear pattern close to 45° (Figure 3).
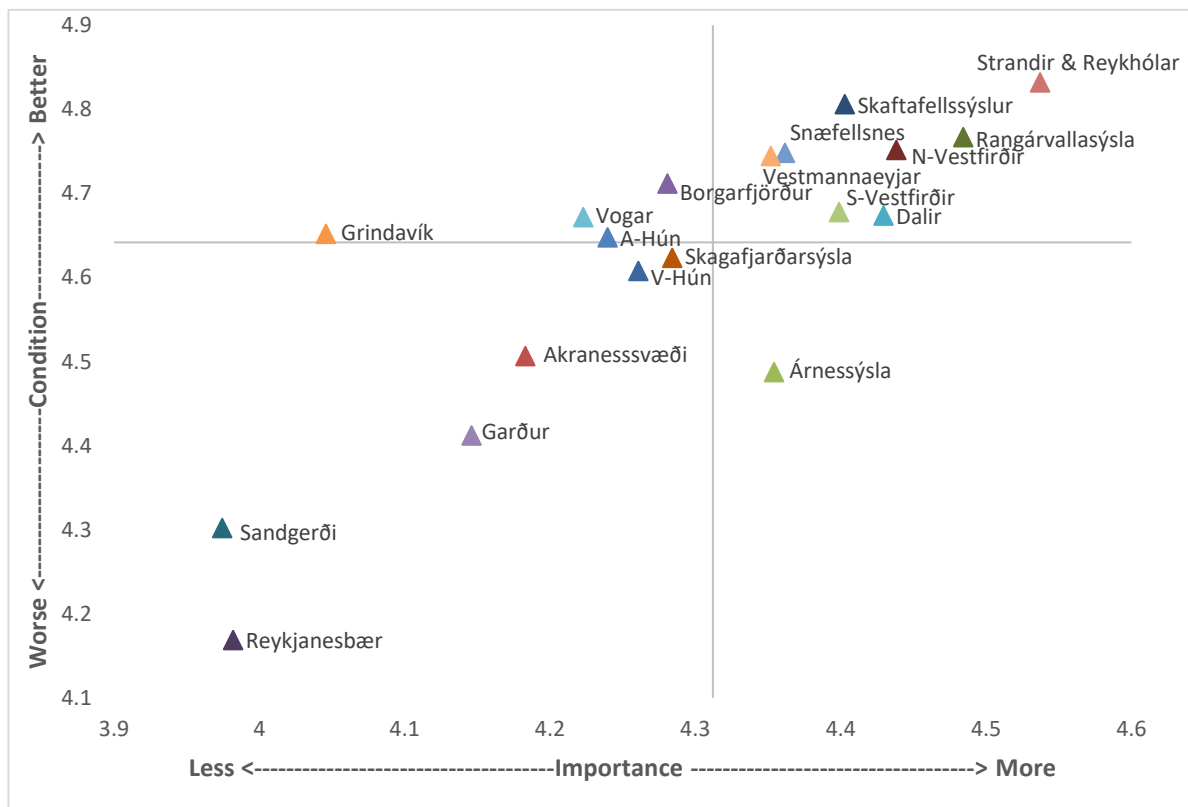
Figure 3. Condition and Importance Diagram for the QoL-Factor Nature.
Source: the Author.

The figure clearly indicates that in regions where the importance of proximity to diverse nature (or the factor under investigation in each case) is highest, the condition is also better than elsewhere. Then we have the converse picture; where the importance of diverse nature is lower than elsewhere, the condition is also worse (the lower left quarter in Figure 3). Closer examination revealed that regions considered richer in nature sites of relatively highest importance to the inhabitants happened to be among those furthest away from the capital area; that is, the districts of Strandir and Reykhólar, Skaftafellssýslur, Rangárvallasýsla and the northern West Fjords. Those which were poorer with regard to this particular condition were only at a marginal distance from the capital area, the main ones being: Reykjanes municipality, Sandgerði, Garður and Akranes.

Since this investigation (Figure 3) is based on averages for the regions concerned, it can only serve as a rough indication. Consequently, a statistical model was designed which tested this correlation among individual respondents across the entire database. Then their residence was related to municipalities but not to regions, and a more precise connection was achieved with distance from Reykjavík. Thus, the following model was tested by means of regression analysis:

$$y_i^* = X'_i\beta + \varepsilon_i$$

This is a specially designed regression analysis model for count variables, sometimes referred to as an ordered response model, in line with patterns that frequently occur in databases originating from opinion polls. A more detailed general technical description of this can be accessed in a recent report (Karlsson, 2020, p. 25) Here y_i^* represents the condition of nature in a respondent's opinion, i and β represent coefficients, whereas ε_i indicates the residual factor. Finally, X'_i is the vector of various explanatory variables as further described here:

$$X'_i = x_1 + x_2 + x_3 + x_4 + x_5 + x_6$$

Where:

y_i^* = Condition of nature in participant's opinion
x_1 = Importance of nature in participant's opinion
x_2 = Distance from Reykjavík to participant's home municipality
x_3 = Number of inhabitants in the municipality concerned
x_4 = Participant's gender
x_5 = Participant's age
x_6 = Participant's age squared
x_7 = Participant is of foreign origin
x_8 = Participant's marital status

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By using this model, we are, to begin with, looking for settlement conditions which appear similar to those in the figure above (Figure 3) in such a way that there is a positive correlation between their condition and importance, as well as a significant positive connection between the distance from Reykjavík to the participant's domicile and the status of the relevant residential condition. On the other hand, we are first and foremost focusing on factors which according to theories on amenity value should act as magnets or pull factors and reflect the special position of provincial municipalities, perhaps rural areas in particular. Those factors are nature, peace and quiet (tranquillity) as well as a more intimate and personal way of life (good community). The model above, for example, contains a reference to nature (or as it is phrased verbatim in the survey, "proximity to diverse nature"). Nevertheless, our analysis will include all the 40 aspects covered in the survey in order to determine whether other factors may be acting as magnets, drawing people towards provincial and rural areas.

A statistical overview of the explanatory variables is below (Tables 4 and 5). This shows, among other things, that some participants are less thorough than others in reporting the importance of individual residential conditions; nevertheless, the minimum number is always just above 5,200. For this data to be valid for final analysis, however, answers need to be obtained to all the other questions covering the variables of the model with regard to each individual participant. We see, for example, that fewer indicate their gender than their age. Nevertheless, we never fell below a minimum response rate to individual questions of just over 4,700 participants to process for the final analysis (see chapter 9.3 for further details).

Table 4. Variable Description and Sample Statistics of the Demographic Variables. Source: the Author.

Variables	Description	Obs.	Average	St Dev.	
Demographic variables					
Gender	Dummy variable, 1 if male.	5,647	0.46		0.50
Age	Participants' age based on indicated year of birth.	5,887	48.60		15.50
Foreigners	Dummy variable for origin, 1 not Iceland.	5,920	0.04		0.19
Marital status	Dummy variable, 1 if married or in a partnership.	5,905	0.79		0.41

Table 5. Variable Description and Sample Statistics of the Quality of Life Factors. Source: the Author.

QoL-factors	Condition			Importance		
	Obs.	Average	St Dev	Obs.	Average	St Dev
Amusement	5,426	3.05	1.08	5,293	3.88	0.99
CCentres	5,357	3.55	1.04	5,266	3.72	1.05
Community	5,456	4.13	0.83	5,299	4.41	0.80
Music schools	5,349	3.90	0.91	5,252	3.75	1.11
Culture	5,406	3.55	0.94	5,271	4.02	0.94
Disabled	5,319	3.25	0.94	5,244	3.90	1.14
Care homes	5,379	3.53	1.12	5,283	4.04	1.09
Empl div	5,441	3.01	1.03	5,345	4.11	1.00
Empl sec	5,388	3.55	0.93	5,330	4.32	0.95
Expenses	5,329	2.87	0.86	5,290	3.99	1.00
Finan-diff	5,253	3.01	0.74	5,249	3.67	1.11
Foreigners	5,282	3.32	0.73	5,244	3.51	1.15
Healthcare	5,463	3.05	1.20	5,328	4.37	0.89
Housing buy	5,442	2.41	1.02	5,310	3.55	1.25
Housing rent	5,433	1.83	0.84	5,308	3.41	1.34
HSchool	5,405	3.38	1.14	5,282	3.55	1.27
HSchool-qual	5,274	3.44	0.96	5,243	3.85	1.21
Internet	5,424	3.64	1.23	5,291	4.32	0.93
Libraries	5,414	4.10	0.83	5,275	3.83	1.06
Mobile	5,456	3.85	1.08	5,305	4.19	0.99
Nature	5,468	4.64	0.61	5,300	4.30	0.91
Parental	5,312	3.41	0.85	5,252	4.04	1.08
Planning	5,324	3.09	0.94	5,256	3.95	0.99
Playschools	5,348	3.89	0.88	5,246	3.81	1.28
Pricing	5,381	2.58	1.03	5,320	4.07	0.99
Publ trans	5,428	2.75	1.12	5,278	3.77	1.16
Retired	5,403	3.42	0.99	5,301	4.14	1.04
Road Safety	5,420	3.73	1.05	5,276	4.37	0.85
Roads	5,436	2.71	1.20	5,301	4.09	1.02
Safety	5,425	4.23	0.76	5,288	4.51	0.76
School	5,356	3.89	0.89	5,262	4.02	1.20
Self-empl	5,404	3.27	0.94	5,305	3.60	1.15
Serv variety	5,405	2.84	1.06	5,294	3.98	0.99
Sports	5,413	3.82	0.97	5,261	4.07	1.06
Traffic	5,438	4.07	0.96	5,285	4.17	0.92
Tranquillity	5,457	4.58	0.66	5,311	4.44	0.81
Unemployed	5,265	3.16	0.77	5,236	3.64	1.14
University	5,403	2.59	1.15	5,274	3.36	1.23
Wages	5,401	2.91	0.93	5,333	4.22	0.94
Youth	5,278	3.33	0.89	5,225	3.85	1.18

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The survey (Tables 4 and 5) also shows that participants varied in their agreement regarding the condition of individual factors. The strongest level of consent relates to the condition of the factors' proximity to diverse nature, where standard deviation was 0.61 and tranquillity, 0.66 – aspects which will be very much in the focus of this research. The participants are less in agreement as to the importance of those two factors, with a standard deviation of 0.91 for proximity to nature and 0.81 regarding tranquillity. But even though their opinions differed more relating to the importance of those factors than their condition, they came closest to relative unanimity on the importance of the top three factors; that is, public safety, a good community and tranquillity. Proximity to diverse nature was the sixth from the top out of a total of 40.

The participants' opinions were most divided regarding the condition of health care, the road infrastructure, and internet connections where the standard deviation rose to 1.20 or higher. This fits in well with the difference between those factors as experienced by those who are involved in regional development. As regards importance, however, the participants expressed the strongest disagreement on the importance of housing for sale and rent as well as quality of preschool, music school and elementary school. Schools occupy a prominent position in this analysis and this is dealt with in more detail in the results. This difference of opinion is understandable, because the participants were asked to answer on the basis of their own residential circumstances and since the respondents are already resident in the community, most of them in their own houses or apartments, housing for sale is of no importance to those who are happy with theirs, whereas this aspect is of high importance to those who are dissatisfied with their residential arrangements. Similarly, housing for rent is of little or no significance to house owners but of critical importance to others. Schools are of great importance to families with children, but not to others, unless grandparents in the same community place proximity to their children and grandchildren high on their list of priorities.

5. RESULTS

Regression Analysis

Regression analysis was conducted in accordance with the model presented in the chapter on methodology. Although the research has specifically highlighted factors such as proximity to diverse nature, peace

and tranquillity, public safety (in contrast to crime, for example) and suchlike it was decided to include all residential circumstances in the survey in order to discover what attracts people to the most successful provincial areas, such as the Southern Peninsula, the Árborg area and the town of Akranes and vicinity. This required 40 independent regression analyses and all relevant conclusions are to be found in the Appendix (Table A3).
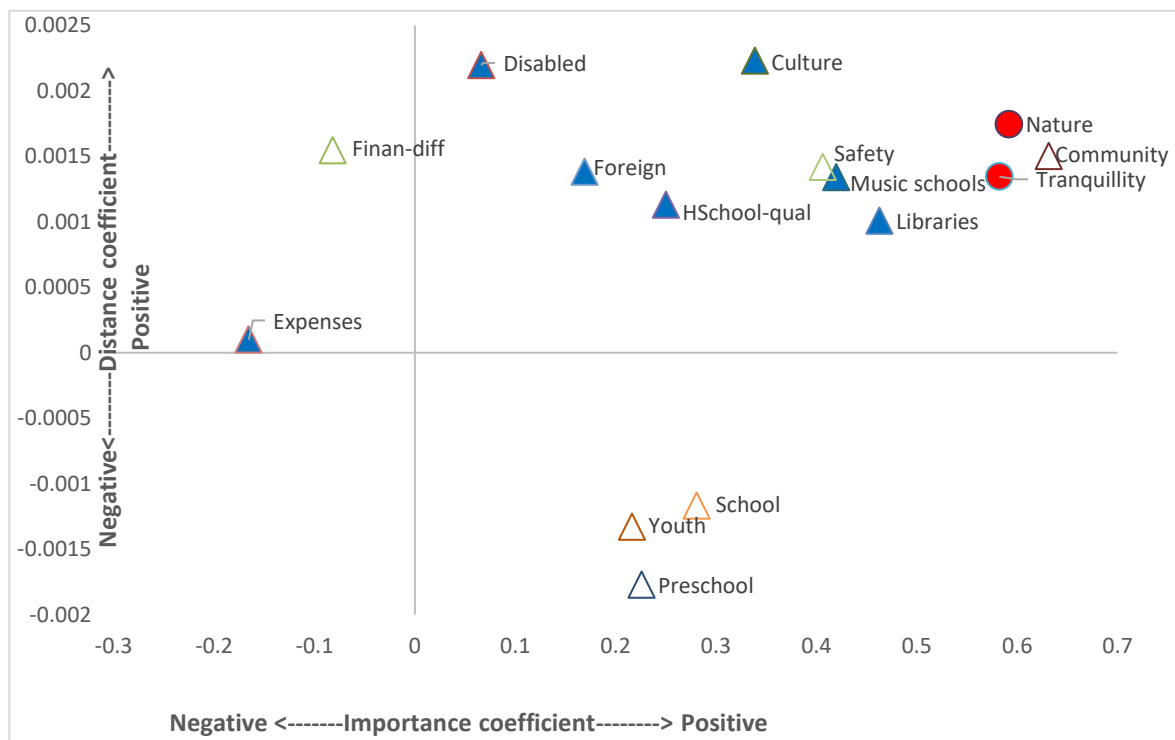
Figure 4. The Coefficients of Significance and Distance from Reykjavík.
Source: the Author.

It is now time to return to the two research questions:
1. Which factors appeal to the inhabitants of small, remote and possibly isolated communities in Iceland?
2. Which factors appeal to the inhabitants of densely populated, easily accessible, not remote and at the fringe of the Icelandic capital area?

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To simplify the conclusions section, it only included those results of the main analysis (see full details in tables of the Appendix), which fulfilled two or three premises, that is:

a) A statistically significant correlation existed between the residential condition and its importance.

b) Premise a) is satisfied and in addition, there was a statistically significant correlation between the residential condition and the distance of the participant's home from Reykjavík. Accordingly, there was a significant correlation between the residential condition, its importance and the distance of the participant's home from Reykjavík (because of a).

c) Premises a) and b) were satisfied and there was a statistically significant correlation between the residential condition and the number of inhabitants in the municipality in question.

To obtain an answer to Question 1) there must be a positive correlation in premises a, b, but negative in c. This is because, in this case, a good and positive residential condition is combined with its increased importance (premise a). Simultaneously this correlation will be strengthened (cf. a) with increasing distance from Reykjavík (premise b) and a smaller population (premise c). The factors which satisfy the condition have been presented in graphic format (Figure 4).

The figure was constructed in such a way that the horizontal axis shows estimated and statistically significant coefficients between importance and residential condition. Estimated and significant coefficients between distance and residential condition are on the horizontal axis. Next, the sign of the coefficients between the residential condition and the population of the communities concerned was shown by the shape and colour of the value. A negative sign is expressed in round, red values, blue and triangle if positive, colourless and triangle if non-significant.

The population of the municipalities concerned was included in the model to enable answers to research questions (Table A3). This was not clearly indicated in the figure and therefore, for the readers' benefit, a table has been presented showing those factors which turned out to be significant with regard to population (Table 6). The size of the coefficient and t-values have then been expressed here, arranged in accordance with the size of the t-values. This shows, for example, that diverse nature and tranquillity become more important in step with a smaller population since the coefficient has a negative value. We also see that tranquillity becomes more significant than nature by this method, judging by the size of the coefficients and the t-values. The t-values show that the participants are more in agreement that the size of the communities

explains the importance of tranquillity (positively), although opinions are more divided on access to diverse nature. This does not affect the earlier conclusion that the inhabitants of sparsely populated and remote regions are more attracted to nature than those living in the outlying districts of the city.

Table 6. The Results of the Regression Analysis with Respect to Local Population. Source: the Author.

QoL-factors	Coefficient	t-value
Music schools	0.0000619	1.76*
Culture	0.0000528	1.96*
Expenses	0.0000544	2.04*
Disabled	0.0000785	2.18**
HSchool-qual	0.0001787	3.28**
Libraries	0.0001017	3.39**
Foreign	0.0000654	3.93***
Nature	-0.0000836	-5.01***
Tranquillity	-0.0001211	-8.37***

Explanation: This only shows statistically significant correlations between population and the residential condition in question, provided the first two premises (a and b) are also satisfied.

Factors in the upper right quarter, marked with circular red dots, answered Question 1. Those factors were nature and tranquillity. This is in accordance with Roback (1982). Access to diverse nature and tranquillity explains the choice of residence in sparsely populated and remote communities as, for example, Árneshreppur municipality, a rural community approximately 400 km away from Reykjavík in the district of Strandir in the West region. This comes as no surprise, but it is noteworthy to see it confirmed in the data. From this, we may assume that the inhabitants of such communities are happy with their diverse natural surroundings combined with peace and tranquillity, and those characteristics are also of high importance with a view to their continued residence. When we come to the margins of the capital area, those factors are in a worse condition, but here people are less concerned than those who live in small and remote communities. It is relevant in this case to recapitulate that both these factors had a very low standard deviation and consequently, the responses have only a limited range.

The blue triangles in the upper right quarter are of some note. Here the correlation between residential conditions and population is reversed in such a way that it becomes more positive as populations grow larger

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(Figure 4). Where a statistically significant correlation exists between residential condition and importance the same applies between the size of communities and the importance of the residential condition in question. This is true for the following factors: services for the disabled, culture, services for foreigners, quality of secondary school, libraries, and music school. Thus, the inhabitants of large, remote communities are happy with those factors which consequently are of critical importance for their future choice of residence, whereas those living in peripheral districts of the capital are not so satisfied in this respect, but this attitude has a smaller impact on their choice of residence. To some extent, the comparatively reduced sensitivity of the latter group regarding future residence may relate to the fact that the capital area is extremely well equipped with the above factors where they are readily accessible, although this can hardly be said regarding services for foreigners and even libraries and services for the disabled. It is easier, on the other hand, to visualise the inhabitants of the peripheral areas seeking culture, secondary schools and music schools in the capital if they are not satisfied with those services in their own community.

Two other factors can be pointed out in this context. As you move further away from the city, public safety and a good community combine a high degree of satisfaction and importance for future residence. This is also in line with Roback's theories (1982). Whether those communities are small or large, however, is not statistically significant. This means that people feel equally safe in remote and isolated communities, both large and small, and the same applies to a good community. In the peripheral districts of the capital, however, people are less satisfied with those two factors but find them less important. Why should general safety be less important for them? They are not likely to find more public safety in the capital. Let us backtrack to safety being the opposite of crime, for example. There are two potential reasons for it being hard to explain less emphasis on general safety in these communities. Firstly, the frequency of crime has been measured as of a relatively highest level in the capital area (Karlsson, 2004, p. 263-270; Karlsson, 2004, p. 263-270). Secondly, safety cannot easily be accessed in a neighbouring municipality as if it was any other kind of service. The same can be said of a good community; if the respondents link it to close friends, family and polite passing strangers, this can also be found in other municipalities, for example, in the capital area. If the opposite, or an unpleasant type of community, can be traced to strife and discord, slander, bullying and suchlike, it is harder to escape from this to another municipality, although

it is conceivable. This might explain the lack of importance assigned to this factor. This may, in particular, apply to those who seek their daily work or school in the capital area.

The answer to Question 2, on the other hand, can be accessed in the lower right quarter (Figure 4), where the factors relating to quality of elementary schools, youth programmes and preschool are located. Here we have a positive correlation between importance and the residential conditions, whereas there is a negative correlation between distance from Reykjavík and the condition of those factors (including importance). Thus, the interpretation is reversed here. The inhabitants of the peripheral districts of the capital are pleased with those factors and feel they are important for their future residence, whereas those who live further away from the capital area are dissatisfied with those same factors, but at the same time feel they are much less important. Please note that the triangles are transparent and thus apply to both small and large communities at the fringe of the capital area. The reader will also note that those factors are accompanied by a higher standard deviation than proximity to diverse nature and tranquillity; it is, in fact, among the highest of all 40 factors (Table 5). Age distribution may explain this in part or in whole. The regression analysis, however, does not suggest this explanation since it included participants' age (Table A3). The competitive advantages and magnetic effects of the peripheral districts of the capital in comparison with remote communities, therefore, relate to quality of elementary schools, youth programmes and preschools with a view to the 40 factors covered in the questions.

For the purpose of clarification, the t-values of importance and distance from Reykjavík were graphically presented (Figure 5), and they can also be accessed in the Appendix (Table A3) for all QoL factors. Generally speaking, the numerical value of the t-value has to be higher than 2 in order to be statistically significant. All the factors represented here were estimated as significant based on a significance requirement of at least a 10% significance level (most of them would, however, pass a 5% requirement), both with regard to importance and distance combined. The factors proximity to diverse nature, a good community and tranquillity are seen to be highly significant, regarding both importance and distance. Libraries, however, are more significant than nature, as is a good community and tranquillity, but less significant relating to distance from Reykjavík. On the other hand, we see that the factor services for the disabled is of somewhat similar significance as proximity to diverse nature, a good community and tranquillity as compared to distance from Reykjavík. But it is much less significant in relation to importance, which

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means that this particular factor becomes stronger as distance from Reykjavík increases; although there is more uncertainty as to whether those who are happy with the services consider them, at the same time, to be of high importance for their future residence. That might be because only a few are directly dependent on the service.
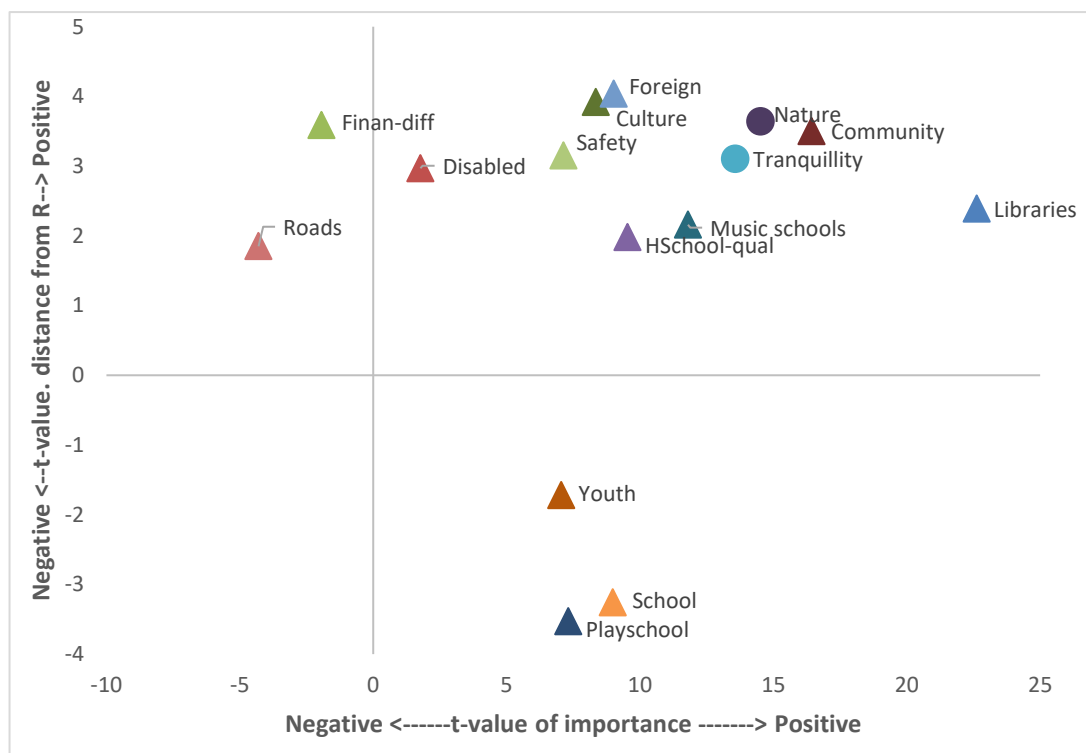
Figure 5. The t-Value of Importance and Distance from Reykjavík (R).
Source: the Author.

6. DISCUSSION AND CONSIDERATIONS

The conclusions appear to be very much in line with expectations as regards the pull-factors of the smallest and most isolated communities where we find individuals who so highly appreciate tranquillity and proximity to diverse nature that they consider it unthinkable to live anywhere else, in comparison with what those locations have to offer in terms of quality of life factors. It came as a surprise, however, that the

analysis brought to light what we could possibly call a special advantage of larger "isolated" communities, such as Ísafjörður, Sauðárkrókur and Vestmannaeyjar (Westman Islands) where services for the disabled, culture, services for foreigners, quality of secondary schools, libraries and music schools act as pull factors in comparison with other districts. We could say that they have a "competitive advantage" compared to other parts of the country, as per Michael Porter (1990). The inhabitants of the locations indicated above are both very happy with those factors in their communities and attach high importance to their successful operation. To be sure, those conclusions also apply to medium-sized, isolated communities such as the municipality of Blönduós, but to a lesser extent. Another unexpected outcome of the analysis was the discovery of the pull factors of large communities, marginal to the capital area, for example, Selfoss, Akranes and Reykjanesbær. Here quality of youth programmes, preschool and elementary school were important attractions.

But why is the secondary level of education so much more important to large and isolated communities than it is to those located a stone's throw from the city of Reykjavík. This might be because it is easy for students living in Selfoss, Akranes and Reykjanesbær to study at a Reykjavík secondary school without having to leave their homes, while this cannot be arranged, or with much more difficulty from Ísafjörður, Vestmannaeyjar and Sauðárkrókur, whatever the future may hold after experiencing distance education under COVID circumstances. The same might apply to music school, but not preschool or elementary school.

Thus, one might suggest that more populous areas outside the capital appeal to people with children and perhaps those who are culture-oriented, while more sparsely populated regions appeal to nature lovers and those who prefer peace and quiet. Finally, a good community and public safety are the common pull factors of remote and isolated communities, independent of the size of their populations.

7. IMPLICATIONS FOR GOVERNMENT POLICY

The authorities could make use of these conclusions in the formulation of focus points, for example, in regional programmes, education and even with regard to urban and environmental planning. Children's services are attractive to many residents and of comparatively high importance in urban centres outside the capital area, while the main pull factors of outlying regions relate to a varied and attractive natural environment, peace and tranquillity. The population of Iceland is of a diverse character, and if we wish to support this diversity and contribute to it, it makes

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sense to maintain and strengthen local specialities and the competitive advantages of various communities so that people can lead enjoyable lives, in line with their different wishes and priorities in relation to local services and other qualities of life. Thus, progress in certain areas can be achieved by enhancing regional specialisation and, at the same time, using existing local competitive advantages as a basis to build upon.

As for local authorities, the conclusions indicating regional competitive advantage suggest points of emphasis that should be given priority in each locality. Lack of information is often the root of inappropriate development and ill-considered decision making. It has been argued that a dearth of knowledge has made its mark on regional development in Iceland. Consequently, municipalities might find it to their advantage to provide sound and reliable information on those aspects which the inhabitants consider to be local strengths, competitive advantage and sources of support. Strong awareness of regional specialisation and attractiveness is important, both for the current inhabitants and others who might take up future residence, to facilitate decision making on the basis of sound and reliable information. Such focus points should be made prominent in the provision of municipal information, whether printed in booklets, placed on the web or presented in the media.

As emphasised in considerations presented by Ahumada *et al.* (2020), those conclusions should assist in decision making by both the state and municipalities regarding priorities in municipal planning and financing. There should, for example, be a stronger emphasis in small and remote communities on protecting and preserving natural sites and guaranteeing the safety and pleasant living conditions of the inhabitants. The more populous communities should place stronger emphasis on services for children. More populous and distant communities should prioritise secondary schools, music schools, libraries, culture in general and services for foreigners and for the disabled beyond what is done in communities at the fringe of the capital. The latter group should give prominence to quality of elementary schools, youth programmes and preschools.

8. CONCLUSIONS

For decades, urban growth has been particularly rapid in Iceland and to such an extent that some believe many provincial communities will cease to exist. But sparsely populated communities in isolated locations are remarkably resilient. Theoretically, some of them should have been

abandoned long ago, for example, with a view to the notion of critical mass. But people persist in living in surprisingly small and isolated communities and sometimes it is suggested that they are trapped in those locations and should be assisted in leaving. But this interpretation of the situation is by no means certain; perhaps those people simply enjoy living exactly where they are and have no wish to reside anywhere else, even though the majority prefers urban residence where much is going on, and things are "happening" all the time.

With a view to these considerations, the following questions were presented:

1. Which QoL factors appeal to the inhabitants of small, remote and possibly isolated communities in Iceland?

2. Which factors appeal to the inhabitants of densely populated, easily accessible communities in the fringe of the Icelandic capital area?

The analysis indicated that the inhabitants of sparsely populated, remote and possibly isolated communities in Iceland place a strong emphasis on their proximity to diverse nature as well as peace and tranquillity, and they are particularly happy with those factors where they live. Those factors are the reason why they prefer to live in those locations. The inhabitants of those regions also placed factors such as public safety and a good community in the same category as nature and tranquillity and the same applied to populous, remote and isolated communities.

The competitive advantages of populous, remote and isolated communities involved aspects relating to services for children and the following additional factors: quality of secondary school, music school, services for the disabled and services for foreigners.

The analysis also indicated that the inhabitants of urban centres on the margins of the capital placed strong importance on services for children and are pleased with those that exist in their communities. This is similar to attitudes expressed in populous, remote and isolated communities where quality of elementary school, preschool and youth programmes are particular priorities. Those appear to be factors which constitute a competitive or comparative advantage of such communities in the effort to attract newcomers. This also turned out to be a competitive advantage of sparsely populated communities marginal to the capital.

Those conclusions are based on a survey among inhabitants in South Iceland, the Southern Peninsula, West Iceland, the West Fjords and North West Iceland conducted in 2016 and 2017 with just over 6,000 participants. The data were analysed by means of a specially designed regression analysis model for count variables intended for use in analysing questionnaire survey data.

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APPENDIX

1.1 The 40 Quality of Life Factors

Table A1. The Quality of Life Factors Acronym. Source: the Author.

Acronym	Factors of residential significance
Amusement	Diversity of amusements
CCentres	Community centres
Community	Good community
Music schools	Music Schools
Culture	Culture
Disabled	Services for the disabled
Care homes	Care homes
Empl div	Diversity of employment opportunities
Empl sec	Employment security
Expenses	Cost of living
Finan-diff	Services regarding financial difficulties
Foreign	Services for foreigners
Healthcare	Quality of clinics/hospitals
Housing buy	Diversity of housing for sale
Housing rent	Diversity of housing for rent
HSchool	Opportunities for secondary education
HSchool-qual	Quality of upper secondary schools
Internet	Internet connection
Libraries	Libraries
Mobile	Mobile phone connection
Nature	Proximity to diverse nature
Parental	Parental services
Planning	Planning/Urban planning
Preschools	Quality of preschools
Pricing	Pricing
Publ trans	Public transport
Retired	Services for the retired
Roads	Road infrastructure
Road safety	Road safety
Safety	Public safety
School	Quality of elementary Schools
Self-empl	Self-employment/Innovation Opportunities
Serv variety	Diversity of retail and services
Sports	Opportunities for sport/leisure/pastime
Traffic	Road congestion
Tranquillity	Tranquillity
Unemployed	Services for the unemployed
University	Opportunities for university education
Wages	Salaries and/or wages
Youth	Quality of youth programmes

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1.2 Regions and Municipalities

Table A2. Regions and Municipalities Defined. Source: the Author and Statistic Iceland.

Survey regions	Municipalities	Regions
Skaftafellssýslur	Sveitarfélagið Hornafjörður	Suðurland
Vestmannaeyjabær	Vestmannaeyjabær	Suðurland
Árnessýsla	Sveitarfélagið Árborg	Suðurland
Skaftafellssýslur	Mýrdalshreppur	Suðurland
Skaftafellssýslur	Skaftárhreppur	Suðurland
Rangársýslur	Ásahreppur	Suðurland
Rangársýslur	Rangárþing eystra	Suðurland
Rangársýslur	Rangárþing ytra	Suðurland
Árnessýsla	Hrunamannahreppur	Suðurland
Árnessýsla	Hveragerðisbær	Suðurland
Árnessýsla	Sveitarfélagið Ölfus	Suðurland
Árnessýsla	Grímsnes- og Grafningshreppur	Suðurland
Árnessýsla	Skeiða- og Gnúpverjahreppur	Suðurland
Árnessýsla	Bláskógabyggð	Suðurland
Árnessýsla	Flóahreppur	Suðurland
Norðanverðir Vestfirðir	Bolungarvík	Vestfirðir
Norðanverðir Vestfirðir	Ísafjarðarbær	Vestfirðir
Strandir og Reykhólar	Reykhólahreppur	Vestfirðir
Sunnanverðir Vestfirðir	Tálknafjarðarhreppur	Vestfirðir
Sunnanverðir Vestfirðir	Vesturbyggð	Vestfirðir
Norðanverðir Vestfirðir	Súðavíkurhreppur	Vestfirðir
Strandir og Reykhólar	Árneshreppur	Vestfirðir
Strandir og Reykhólar	Kaldrananeshreppur	Vestfirðir
Strandir og Reykhólar	Strandabyggð	Vestfirðir
Akranes og Hvalfjörður	Akranesi	Vesturland
Borgarfjarðarsvæði	Borgarbyggð	Vesturland
Dalir	Dalabyggð	Vesturland
Snæfellsnes	Eyja- og Miklaholtshreppi	Vesturland
Snæfellsnes	Grundarfjarðarbæ	Vesturland
Akranes og Hvalfjörður	Hvalfjarðarsveit	Vesturland
Borgarfjarðarsvæði	Skorradalshreppi	Vesturland
Snæfellsnes	Snæfellsbæ	Vesturland
Snæfellsnes	Stykkishólmsbæ	Vesturland
Snæfellsnes	Helgafellssveit	Vesturland
Skagafjarðarsýsla	Sveitarfélagið Skagafjörður	Norðurland vestra
Skagafjarðarsýsla	Akrahreppur	Norðurland vestra
V-Húnavatnsýsla	Húnaþing vestra	Norðurland vestra
A-Húnavatnssýsla	Blönduósbær	Norðurland vestra
A-Húnavatnssýsla	Sveitarfélagið Skagaströnd	Norðurland vestra
A-Húnavatnssýsla	Skagabyggð	Norðurland vestra
A-Húnavatnssýsla	Húnavatnshreppur	Norðurland vestra
Grindavíkurbær	Grindavíkurbær	Suðurnes
Reykjanesbær	Reykjanesbær	Suðurnes
Sandgerði	Sandgerði	Suðurnes
Sveitarfélagið Garður	Sveitarfélagið Garður	Suðurnes
Sveitarfélagið Vogar	Sveitarfélagið Vogar	Suðurnes

Regression Analysis

Table A3. The results of every single regression analysis. Source: the Author.

Variables	Amusement	CCenters	Community	Conservatories	Culture
The importance	0.0541 (1.52)	0.3737 (10.40)***	0.6318 (16.43)***	0.4199 (11.80)***	0.3388 (8.35)***
Distance from Reykjavík	0.0018 (3.50)**	0.0006 (0.86)	0.0015 (3.50)**	0.0013 (2.16)**	0.0022 (3.92)***
Local population	0.0001 (2.28)**	-0.0001 (-1.16)	0.0000 (-0.12)	0.0001 (1.76)*	0.0001 (1.96)*
Gender	0.1235 (2.01)*	0.0649 (1.17)	-0.0247 (-0.39)	-0.1924 (-2.77)**	-0.1343 (-2.18)**
Age	0.0150 (6.72)***	-0.0430 (-2.22)**	0.0161 (7.47)***	0.0111 (5.40)***	0.0113 (3.96)***
Age square		0.0005 (2.66)**			
Foreign origin	0.4365 (3.09)**	-0.1678 (-1.13)	0.0383 (0.32)	-0.1568 (-0.94)	0.3185 (2.11)**
Marital status	0.0653 (0.98)	0.0627 (1.05)	-0.0428 (-0.50)	0.0582 (0.82)	0.0428 (0.78)
Observations	4791	4736	4815	4726	4764
F-value	6.44	17.34	51.57	22.86	12.51

Variables	Disabled	Care homes	Empl div	Empl sec	Expenses
The importance	0.0662 (1.77)*	0.2065 (4.76)***	-0.0643 (-1.80)*	0.0997 (2.24)**	-0.1655 (-4.30)***
Distance from Reykjavík	0.0022 (2.97)**	0.0008 (0.57)	0.0004 (0.32)	0.0004 (0.23)	0.0008 (1.85)*
Local population	0.0001 (2.18)**	0.0000 (0.33)	0.0001 (3.55)**	0.0000 (1.71)	0.0001 (2.04)*
Gender	0.1069 (1.66)	-0.0100 (-0.13)	0.0709 (1.23)	0.2265 (2.95)**	0.1569 (2.95)**
Age	-0.0373 (-2.90)**	-0.0268 (-2.32)**	0.0016 (0.62)	-0.0383 (-2.74)**	-0.0528 (-4.78)***
Age square	0.0004 (2.70)**	0.0004 (3.31)**		0.0003 (2.50)**	0.0004 (3.80)***
Foreign origin	0.1938 (1.50)	0.3638 (1.78)*	0.3251 (2.73)**	0.2322 (1.25)	-0.0423 (-0.38)
Marital status	0.0568 (0.77)	-0.1009 (-1.08)	-0.1345 (-1.99)*	0.0614 (1.02)	0.1901 (2.84)**
Observations	4702	4760	4830	4788	4738
F-value	4.03	8.21	2.76	5.11	5.52

Variables	Finan-diff	Foreign	Healthcare	Housing buy	Housing rent
The importance	-0.0817 (-1.93)*	0.1692 (9.02)***	0.0071 (0.11)	-0.1404 (-5.15)***	-0.0947 (-5.26)***
Distance from Reykjavík	0.0015 (3.59)**	0.0014 (4.04)***	0.0003 (0.24)	-0.0008 (-1.06)	0.0010 (1.22)
Local population	0.0000 (0.99)	0.0001 (3.93)***	0.0000 (-0.38)	0.0001 (2.19)**	0.0001 (2.68)**
Gender	-0.1001 (-1.64)	0.1955 (2.76)**	-0.0560 (-0.72)	0.1040 (1.47)	0.5362 (9.35)***
Age	-0.0091 (-4.94)***	-0.0512 (-4.50)***	0.0165 (6.82)***	0.0090 (5.15)***	0.0182 (10.45)***
Age square		0.0004 (3.66)**			
Foreign origin	0.1110 (0.59)	-0.2185 (-0.88)	0.1924 (0.91)	0.6262 (5.16)***	0.5471 (3.53)**
Marital status	0.2868 (4.08)***	0.0928 (1.24)	-0.0695 (-1.09)	-0.3016 (-4.26)***	-0.3470 (-5.09)***
Observations	4671	4686	4827	4812	4811

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F-value	11.95	108.51	14.88	13.34	24.81

Variables	HSchool	HSchool-qual	Internet	Libraries	Mobile
The importance	0.1612 (5.39)***	0.2502 (9.54)***	0.0038 (0.10)	0.4628 (22.63)***	0.0517 (1.33)
Distance from Reykjavík	0.0010 (1.28)	0.0011 (1.98)*	-0.0016 (-2.27)**	0.0010 (2.39)**	-0.0015 (-2.25)**
Local population	0.0002 (2.87)**	0.0002 (3.28)**	0.0001 (2.42)**	0.0001 (3.39)**	0.0001 (2.72)**
Gender	-0.1876 (-2.20)**	-0.1597 (-2.02)*	-0.0899 (-1.42)	-0.2886 (-5.48)***	-0.0767 (-1.86)*
Age	-0.0245 (-1.85)*	0.0077 (3.53)**	0.0025 (1.16)	0.0080 (4.07)***	-0.0463 (-3.26)**
Age square	0.0003 (2.17)**				0.0004 (3.27)**
Foreign origin	-0.3579 (-2.89)**	-0.2030 (-1.38)	0.5048 (4.64)***	-0.2052 (-1.07)	0.4663 (3.38)**
Marital status	0.1363 (1.98)*	0.0484 (0.68)	-0.1829 (-2.12)**	0.1427 (1.65)	-0.0562 (-0.58)
Observations	4780	4676	4781	4792	4812
F-value	10.41	23.4	7.63	67.77	3.22

Variables	Nature	Parental	Planning	Playschool	Pricing
The importance	0.5920 (14.53)***	0.1020 (4.32)***	-0.0158 (-0.44)	0.2261 (7.32)***	-0.1628 (-3.70)**
Distance from Reykjavík	0.0017 (3.64)**	0.0000 (0.08)	-0.0006 (-0.95)	-0.0018 (-3.53)**	0.0009 (0.84)
Local population	-0.0001 (-5.01)***	0.0000 (-0.53)	0.0000 (-1.62)	0.0000 (1.31)	0.0002 (2.56)**
Gender	-0.3410 (-3.80)***	0.0558 (0.98)	-0.0330 (-0.55)	-0.1230 (-2.98)**	0.1492 (2.08)*
Age	0.0193 (1.51)	0.0046 (2.30)**	-0.0256 (-1.92)*	-0.0284 (-2.39)**	-0.0354 (-3.21)**
Age square	-0.0003 (-2.09)*		0.0003 (2.19)**	0.0003 (2.52)**	0.0004 (3.36)**
Foreign origin	-0.4392 (-2.26)**	-0.0413 (-0.42)	0.2575 (1.63)	-0.0824 (-0.68)	-0.0751 (-0.66)
Marital status	0.0905 (0.92)	0.2043 (2.75)**	0.0207 (0.38)	0.3399 (4.44)***	0.0376 (0.50)
Observations	4815	4718	4717	4721	4773
F-value	23.17	8.63	1.93	24.08	3.37

Variables	Publ trans	Retired	Roads	Road safety	Safety
The importance	-0.0038 (-0.05)	0.1192 (3.61)**	-0.2527 (-6.21)***	0.0212 (0.54)	0.4065 (7.14)***
Distance from Reykjavík	-0.0029 (-3.40)**	0.0013 (1.71)	-0.0013 (-1.66)	0.0011 (1.06)	0.0014 (3.15)**
Local population	0.0001 (1.68)	0.0000 (-0.52)	0.0000 (1.54)	0.0000 (0.48)	0.0000 (0.01)
Gender	-0.0680 (-1.11)	-0.0484 (-0.86)	0.0323 (0.63)	0.0427 (0.76)	0.1582 (2.34)**
Age	0.0150 (6.92)***	0.0107 (6.28)***	0.0086 (3.02)**	-0.0404 (-3.51)**	-0.0108 (-5.92)***
Age square				0.0004 (3.66)**	
Foreign origin	0.4367 (2.92)**	0.1129 (0.59)	0.9344 (6.12)***	0.0850 (0.65)	0.2104 (1.57)
Marital status	-0.0174 (-0.18)	-0.0338 (-0.50)	-0.1442 (-1.65)	-0.0353 (-0.41)	-0.0496 (-0.70)
Observations	4772	4775	4789	4788	4790

F-value	13.26	8.95	13.75	1.41	20.29

Variables	School	Self-empl	Serv variety	Sports	Traffic
The importance	0.2809 (8.98)***	0.2723 (7.41)***	-0.1097 (-1.97)*	0.2512 (10.25)***	0.1935 (4.69)***
Distance from Reykjavík	-0.0012 (-3.26)**	-0.0003 (-0.30)	0.0003 (0.41)	0.0000 (0.04)	0.0010 (1.10)
Local population	0.0000 (1.36)	0.0000 (-0.30)	0.0002 (2.12)**	0.0001 (2.51)**	0.0000 (-0.75)
Gender	-0.1332 (-3.13)**	0.1752 (4.11)***	0.2043 (2.17)**	0.0006 (0.01)	0.0265 (0.32)
Age	0.0034 (1.79)*	0.0002 (0.10)	-0.0471 (-3.38)**	0.0074 (2.63)**	-0.0028 (-0.80)
Age square			0.0005 (3.36)**		
Foreign origin	0.0019 (0.01)	0.1347 (0.99)	0.2244 (1.39)	0.0546 (0.54)	-0.0374 (-0.20)
Marital status	0.0953 (1.24)	0.1443 (2.23)**	-0.0550 (-0.65)	0.0419 (0.58)	0.0321 (0.28)
Observations	4741	4789	4777	4771	4792
F-value	31.51	18.93	3.3	19.97	3.83

Variables	Tranquillity	Unemployed	University	Wages	Youth
The importance	0.5824 (13.58)***	0.0002 (0.01)	0.2213 (8.11)***	-0.0010 (-0.02)	0.2164 (7.05)***
Distance from Reykjavík	0.0013 (3.10)**	0.0015 (3.14)**	-0.0007 (-0.86)	0.0013 (1.32)	-0.0013 (-1.72)
Local population	-0.0001 (-8.37)***	0.0001 (4.01)***	0.0001 (3.10)**	0.0000 (0.82)	0.0000 (1.63)
Gender	-0.2925 (-3.85)***	0.1065 (1.19)	-0.2629 (-3.71)**	0.5034 (6.28)***	0.1530 (3.30)**
Age	-0.0041 (-2.06)*	-0.0016 (-0.89)	0.0075 (2.65)**	-0.0086 (-4.19)***	-0.0410 (-2.63)**
Age square					0.0005 (2.92)**
Foreign origin	-0.4371 (-2.26)**	0.1167 (0.62)	0.4068 (3.54)**	0.4627 (4.24)***	0.2031 (1.50)
Marital status	0.0498 (0.64)	0.2001 (2.71)**	0.0373 (0.47)	-0.0370 (-0.61)	0.0298 (0.32)
Observations	4824	4674	4780	4808	4665
F-value	72.53	4.73	23.14	17.8	15.03