The Remote Revolution: Investigating the Effects of Remote Work Availability on the Residency Preferences of Young College Graduates

by

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Contents

Abstract

Remote work, facilitated by technological advancements such as video conferencing tools, has reshaped the significance of the physical location, diminishing its criticality in today's work environment. While the trend started during the now endemic Covid-19 pandemic, it is still present today. Although this has started a debate on what the future of work will look like, the economic geographic perspective is oftentimes missing but worth considering. What are the effects of this new possibility on regions? Will the residential location choices of young college graduates in their twenties change? Can we expect a shift away from cities? To understand the preferences of the new generation that is entering the labour market, this study conducted quantitative data collection to gain an understanding of this phenomenon. Based on the research question "Investigating the Impact of Remote Work Availability on Young College Graduates' Residency Decisions" one hundred twenty-five cases were gathered and analysed using regression and correlation analyses. The results show that the possibility of working remotely cannot convince people who prefer urban living to leave those areas. Especially people that are part of the "creative class", people whose human capital stems from their creativity, express a strong desire to stay in cities even if they could work remotely somewhere else. Further research should consider the differences between people in other age cohorts and living situations.

1. Introduction

1.1 Background

Questions of how a particular technological advance will impact human settlement patterns and the way we live are not new. Innovations like the fax machine, telecommunication and the computer all reduced the importance of face-to-face human interaction. Simultaneously, these trends have started to become researched by economic geographers who wanted to learn more about their effect on regions (Atkinson, 1998). But while these changes have not led to high-cost agglomerate regions becoming obsolete, they have proven the opposite. Today, the relationship between technological innovation and cities is established. Richard Florida even argues that "innovation and entrepreneurship do not simply take place in cities but, in fact, require them" (LeGates & Stout, 2020, p.151).

However, recent years have seen yet another twist. Technology has continued to advance and digitalize labour. During the Covid-19 pandemic, non-traditional forms of work like remote work, peaked. Reducing human face-to-face interaction was a goal that needed to be achieved to minimize the risk of being exposed to the virus.

While this was more than just a major inconvenience for some, many others started to perceive this as somewhat liberating. Questions of "work-leisure relationships" (Reichenberger, 2018), which are at the core of the digital nomadism movement, have appeared more frequently and in more comprehensive parts of society. The digital nomadism movement started as an escape from the location-dependent working life when online jobs first emerged (Reichenberger, 2018). Now, based on the increased experience, some reports even conclude that working from home has a net positive effect on the productivity of workers due to factors such as missing commuting time (Barrero, 2020). And even though the pandemic is over, working from home has not disappeared. Many people have stayed at home and not returned to their offices.

While up to around 40% of US workers during the pandemic were working remotely, this share of people was not equally distributed among the population (Greenstein, 2021). Data shows that it was primarily the best-paid workers who could work from home, which, according to some researchers, is due to their specialization and type of work (Greenstein, 2021 & Althoff, 2020). Research has also shown that the rise of remote work and the pandemic has led many people to rethink their residential location choices. While there is no evidence of a substantial shift towards rural areas, the sub-urban areas saw a rise in demand (Dolls, 2023).

Additionally, the changing opinions of many of the (tech)-CEOs and their introduced policies (Chowdhury, 2023) towards work-from-home have an effect that can already be seen in the real estate market. Large centres of economic activities like New York and San Francisco have experienced a considerable decline in office rents due to the decreased demand (Phillips, 2023). Furthermore, many governments around the world are fighting hard to combat the high rent prices and lack of housing space. While the German government wants to build 400.000 apartments every year, the question of where they should be built remains unanswered (Knight, 2023). Previously, people have argued that a Covid-19 and remote work-induced shift away from urban areas could help ease the pressure in densely populated areas. But the question of whether there is any demand for that is important to investigate. It is therefore central to understand the preferences of the current generation to better accommodate their needs.

While previous research has investigated these desires and values for the generation of millennials (Lee, 2018), research still needs to identify how different they are compared to the current generation of twenty-year-olds. These factors underline the importance for policymakers. Therefore, there is academic and societal relevance to answering how remote work influences residential location choices.

1.2 Research Problem

Even though the Covid-19 pandemic has ended, remote work has stayed. While the extent varies, it appears that the demand for remote work exceeds the supply of these jobs (Bhattarai, 2022). Therefore, the question of how this affects the new generation of college graduates entering the labour market arises. This is especially important as they are the ones, due to being highly skilled and specialized, that are most likely to be able to conduct part of their work online. Therefore, the research question guiding this research will be:

"Investigating the Impact of Remote Work Availability on Young College Graduates' Residency Decisions".

The sub-questions are defined as follows:

- "How important is the availability to work remotely for young college graduates?"

- "How do economic incentives affect the residential location choices of young college graduates?"

- "How does the place of origin impact the residential location choice".

1.3 Structure

This section provides an overview of the structure of this thesis.

The introductory chapter serves as a foundation for the thesis, beginning with a background section (1.1) that contextualizes the research topic within the existing literature and states the societal and academic relevance. Then, the research problem (1.2) is stated, identifying the specific issue the research aims to address and highlighting its significance. Finally, the structure of the thesis (1.3) is outlined, providing a roadmap for the subsequent chapters.

The theoretical framework chapter (2) explains the conceptual keystones of the study. It includes the development of a conceptual model (2.1), which outlines the key variables and their relationships. This model guides the formulation of hypotheses (2.2), which provides a basis for empirical investigation.

The methodology chapter (3) clarifies the research design, data collection methods, and analytical procedures. It also encompasses a section on research ethics (3.1), which outlines the principles and guidelines followed to ensure participants' ethical treatment and the study's integrity.

The results chapter (4) presents the empirical findings resulting from the data analysis. It encompasses the presentation of the data and statistical analyses. The results are interpreted (4.1) and discussed within the research objectives and hypotheses framework.

Finally, the conclusion chapter (5) synthesizes the main findings, restates the research problem and objectives, and discusses their implications.

2. Theoretical Framework

The purpose of this research is to investigate young college graduates' location preferences and examine how the emergence of remote work influences these preferences. This research covers and engages with research from various fields, from Regional Labour Markets to Economic Geography, migration, social mobility and, of course, Digital Nomadism. While the existing studies have covered essential areas, there is a research gap that combines the different fields.

Althoff et al. (2020) investigated the City Paradox, a phenomenon that describes a situation when the increasing density of a city increases the share of jobs that could be done remotely. Further, they introduce the concept of Skilled Scalable Services (SSS) (Althoff et al., 2020). These SSS workers work in jobs that can be done remotely yet are mainly located in cities. Their jobs often require a college education, ranging from professional services to management and information-specific jobs (Althoff et al., 2020). As this concept involves a focus on skill-based technologies and creating (Eckert et al., 2020), his concept does seem to significantly overlap with Florida's concept of the "creative class". He describes the creative class as people whose property results from their creativity and is therefore "intangible because it is literally in their heads" (Florida, 2015, p.1). Florida writes that these "creative professionals" may also work in knowledge-intensive areas and are attracted to places that foster their creativity and are perceived as open-minded (Florida, 2005). Similarly to the SSS concept introduced by Eckert et al., he places these jobs in areas like knowledge-based professions, finance and, among others, technology-based industries.

As previously established, SSS workers are most likely to be able to work remotely. Reichenberger (2018) looked at the definition of digital nomads and when they can be classified as such. The definition includes a scale containing a broad spectrum from working remotely now and then to not having a permanent residency at all. Furthermore, while investigating their experiences, motivations and demographics, Reichenberger (2018) finds that many young and college-educated people without substantial family obligations are inclined to participate in a form of Digital Nomadism.

To examine whether people’s preference for residential locations are influenced by what they´re used to, their place of origin needs to be taken into account. There seems to be evidence that the place of birth indeed influences one's later residential location choices (Feijten et al., 2008). However, Feijten et al. (2008) also found that previous experience can only shape the preference for a specific type of region. Research also indicates that both genetic factors and parental influence play a role (Cronqvist et al., 2014).

However, it is essential to connect with the existing literature that examines the economic incentives associated with decisions on residential location. For instance, Barrero et al. (2020) discovered that respondents were willing to accept a pay reduction of up to 7% to gain the opportunity to work remotely during the pandemic. This finding highlights the need to investigate how individuals respond to financial incentives.

While economic incentives directly influence the residential location choice, personal preferences mediate. Fielding's (1992) model of the escalator region indicates that young adults migrate to particular regions that offer them to promote their upward social mobility. Edward Glaeser et al. (2001) extend this argument with the consumer city hypothesis. While highly skilled and high-income people seem to move to cities offering high-quality amenities, he argues that this will be the challenge that cities need to achieve (Glaeser et al., 2001). Hence, the personal ambition for upward mobility and the preference for specific amenities seem to be part of one's preferences mediating the residential location decision.
This theoretical framework serves as a framework for this study and is conceptualised in the following conceptual model.

2.1 Conceptual Model

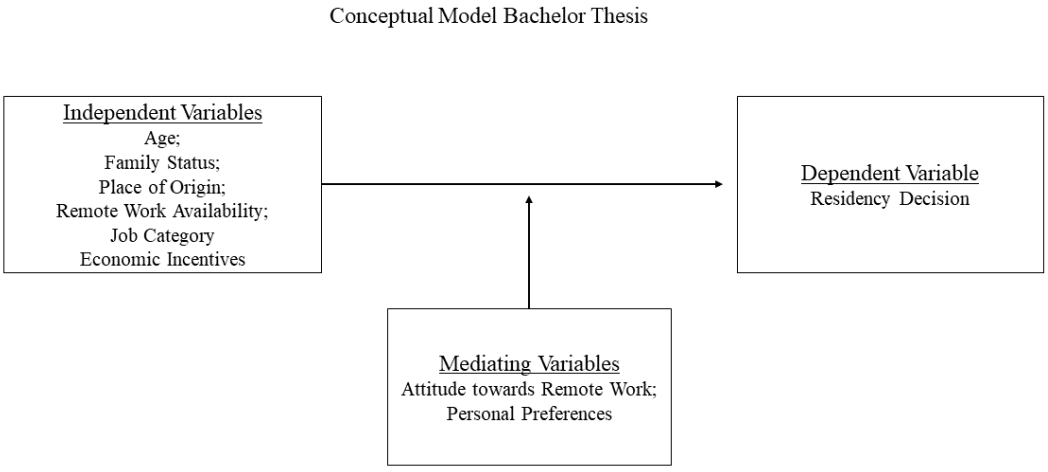

Figure 1: Conceptual Model. Source: Author

Based on the theoretical framework, several independent and mediating variables influence the residential location decision. Each of the individual variables in the conceptual model is considered to affect the dependent variable directly. As argued previously, age and family status can influence decisions through changing life stages and family obligations. The place of origin, however, is considered to impact the residency decision through familiarity and attachment to a particular place

or lifestyle. Furthermore, there is a direct link between the availability of remote work and economic incentives that impact the residency decision.

Contrary to the independent variables, the mediating variables are believed to play a role in how the independent variables influence the dependent variables.

2.2 Hypotheses

Three hypotheses that will be tested arise based on the previous analysis, the research, and the secondary research questions.

The first hypothesis is that young college graduates who express a preference for urban living are less likely to choose to live in rural areas even if they have remote work availability. The result of this hypothesis is the appropriate null hypothesis: "H0: There is no linear relationship between young college graduates with a preference for urban living and their likelihood of living in rural areas even if they could work remotely.

This hypothesis is based on the concept that individuals who prefer urban living are attracted to the amenities, opportunities, and lifestyles that cities offer. The hypothesis posits that even with the availability of remote work, the preference for urban living will still influence their decision, leading them to choose urban areas over rural areas.

The second hypothesis is that young college graduates would require large financial incentives to move to a small town or rural area even if they could work remotely. As this hypothesis will be tested by doing a Pearson's Correlation, the respective null hypothesis can be formulated as follows: "H0: There is no correlation between financial incentives and young college graduates' decision to move to non-urban areas when remote work is available."

This hypothesis is grounded in the assumption that financial incentives play a significant role in individuals' residential location decisions. It suggests that young college graduates would require substantial financial incentives to compensate for the perceived drawbacks of living in small towns or rural areas compared to urban areas.

Moreover, the last hypothesis is that young college graduates who grew up in cities are less likely to choose to live in non-urban areas even if they have remote work availability. Its null hypothesis is: “H0: There is no correlation between growing up in cities and recent college graduates' decision to move to non-urban areas when remote work is available.”

This hypothesis will help to answer the last sub-question. Furthermore, this hypothesis stems from the notion that individuals' upbringing and familiarization with urban environments can shape their

preferences and attachment to city living Cronqvist et al., 2014 & Feijten et al., 2008). It proposes that young college graduates who grew up in cities or rural areas will be more inclined to choose a similar environment area as their residential location.

3. Methodology

The research question will be answered through quantitative data collection methods. More specifically, this will be done using a questionnaire. This provides an opportunity to collect larger amounts of data from individuals in a short period. As the Covid-19 pandemic has impacted the topic of this research and the opinion of the relevant target population, gaining a large amount of data seems beneficial. Therefore, quantitative research is most fitting to understand the underlying large-scale trends. This method allows for efficient data collection from a diverse sample of young college graduates, enabling a broader understanding of their perspectives and experiences. Qualitative research in the form of interviews could be a valuable addition to further research that goes more in-depth on the topic.

Responses will be gathered through a voluntary sampling strategy, with survey questions distributed to target group members.

The distribution methods will rely on social media platforms: Instagram, WhatsApp and LinkedIn, and the respective network of the researcher within these platforms. As the call to action is specifically directed towards a specific target audience, they can self-select from the population with this sampling strategy (Burt et al., 2009). This allows the sampled population to reflect the targeted population as closely as possible.

The age of the target audience of young college graduates is defined as people in their 20s. Furthermore, the target audience will be further narrowed down to people that are expected to graduate within, at most, the next three years or have, at most, graduated within the last three years. Whether the respondents fulfil the criteria will be checked during the survey and will be a requirement to complete it. The target number of respondents will be set at 100, providing a sufficiently large sample size for data analysis and enhancing the robustness of the study. The resulting data will be analyzed using statistical analysis methods. For this, the software SPSS will be used. The ensure the validity of the relationships between the relevant dependent and independent variables, control variables will be used. Age, gender, and family status are among these demographic factors.

The first hypotheses, "young college graduates who express a preference for urban living are less likely to choose to live in rural areas even if they have remote work availability", will be tested utilizing a multiple linear regression. The data gained from the survey question "Assume that you have to change your residential location. What is the population size of the area that you would be most interested in moving to?" were recoded into a binary variable that divided the sample into either having a preference for urban or non-urban areas. This regression is at the heart of this research and will help to answer the research question. Most importantly, the data will tell us whether young college graduates with a preference for urban living would be inclined to move to non-urban areas if they could work remotely. However, within this regression, several other independent variables will be included. This allows an analysis for which the importance of individual variables can be investigated and compared. These variables are the descriptives and a variable that categorizes the respondent's jobs into whether they can be part of the SSS classification or the "creative class". During the survey, the respondents were asked to choose the category from the North American Industry Classification System (U.S. Census Bureau, 2022) that best fits their (future) job. The main reason for this is that Eckert et al. (2020) used the same classification to establish their concept of Skilled Scalable Services. For this concept, they included the categories "Information" (NAIC 51), "Finance and Insurance" (NAIC 52), "Professional, Scientific, and Technical Services" (NAIC 54) and "Management of Companies and Enterprises" (NAIC 55). During the process of data analysis, this variable was recoded into a binary variable for this research. With this, the respondents could either be classified as SSS workers or not. Therefore, this question aims at gaining insight into (future) SSS workers and their preferences. The results will compare the taste between SSS workers and other graduates as well as the strength of this relationship.

The second hypothesis, "young college graduates would require large financial incentives to move to a small town or rural area even if they could work remotely", will be tested through a Pearson's Correlation. This will allow an analysis that tests the relationship, and the strength, between the needed financial incentives that college graduates would need to convince them. The financial incentives were tested through the survey question, "What percentage increase in salary would motivate you to move to a small town (10.000-20.000 inhabitants) or a rural area (< 10.000 inhabitants) if you could work remotely?"

Like the second, the third hypothesis, "young college graduates who grew up in cities are less likely to choose to live in non-urban areas even if they have remote work availability", will also be tested through a Pearson's Correlation. The data collection for this question was done with the survey questions of "Please select the option that best describes the place where you grew up" to understand the areas where the respondents grew up and "On a scale of 1-10, how likely are you to move to a

small town (10,000-20,000 inhabitants) or a rural area (<10,000 inhabitants) if you could work remotely?" The regional categories were classified as follows. Value 1 = Large cities (>500.000), value 2 = mid-sized cities (100.000 – 500.000) and value 3 = small cities (20.000 – 100.000), value 4 = small town (10.000 – 20.000) and value 5 = rural areas (< 10.000).

This will allow a thorough analysis with which the hypotheses can either be rejected or not. Furthermore, this is in line with the conceptual model, and the aim to answer the research and the sub-questions. The questionnaire can be found in the appendix.

At this point, it is important to reflect on the data quality. Firstly, when considering the reliability or the consistency of the measurement, the results can be considered satisfactory. More specifically, this means whether someone else would receive similar results while investigating the same topic (Fitzner, 2007). This is likely for this research, as there is no reason to believe otherwise. Because all the questions were asked in closed question format, there were no outliers, and the data generally can be considered high quality.

Secondly, it is essential to consider the issue of validity, which refers to the accuracy of measuring what was intended to be measured, as defined by Fitzner (2007). In this case, the data appears to effectively capture the intended measurements, demonstrating a clear alignment between the research questions, sub-questions, and the data collected.

And last but not least, the trustworthiness of the collected data needs to be considered. While there are no significant issues, one minor thing might need to be considered. As the researcher and many people in the network around him have moved to new regions and countries, there is the risk of a certain selection bias towards a higher likelihood of moving, which might not accurately represent the population.

3.1 Research Ethics

The research will be conducted following the Netherlands Code of Conduct for research integrity (2018). Hence, the assurance of privacy, anonymity, and confidentiality shall be provided. The participants will be informed about the aim of the research, will participate voluntarily and will have the opportunity to opt out of the research.

Furthermore, before contributing, the respondents will be informed about the aim of the research and the use of the data. Understanding the benefits, risks and purpose of participating is essential to receive informed consent. Participating in a research study means being an active part of society and contributing to scientific progress. In the case of this research, the potential risks are low. The

questions asked during the survey seem unlikely to cause any psychological harm to any participants. If case of any uncertainties, the researcher provides ways in which it would be possible to get in contact.

The researcher hereby also confirms that the final work is free of plagiarism and expresses the commitment towards the highest ethical standards used by the academic community and mentioned above. To ensure full transparency and allow future quality checks, the dataset will be stored safely and securely by the supervisor for five years. After this period the dataset will be deleted.

4. Results

The data collection process resulted in 125 cases. From these cases, the mean age is 22.4 years old, with 52% of the respondents identifying as female and 48% as male. Only 1 case (0.8%) from this sample reported being married. The same is true for having children, as only respondents answered yes. Twenty-four people (19.2%) currently live with another family member, and only nine individuals (7.2%) have never moved. The general satisfaction with the place where they grew up was relatively high, with the mean value being 7.6. When analyzing the job categories, the results show that 40% of the cases (frequency of 50) can be considered part of the SSS. To the question "If you are not working yet: How likely do you believe it is that you will be able to work remotely to some degree? 1 = extremely unlikely, 10 = extremely likely" 111 people responded. The mean is at 6, while the mode is at 8. When asked about the importance of working remotely, the mean resulted in 5.2. However, 64% agreed that they would want to work remotely about once or twice per week. Interestingly, this finding relates to the previously mentioned research by Barrero et al. (2020), as they reported a willingness to accept pay cuts of 7 per cent in order to work from home two-or-three days per week. This was followed by 24% who said that once or twice per month would be enough for them.

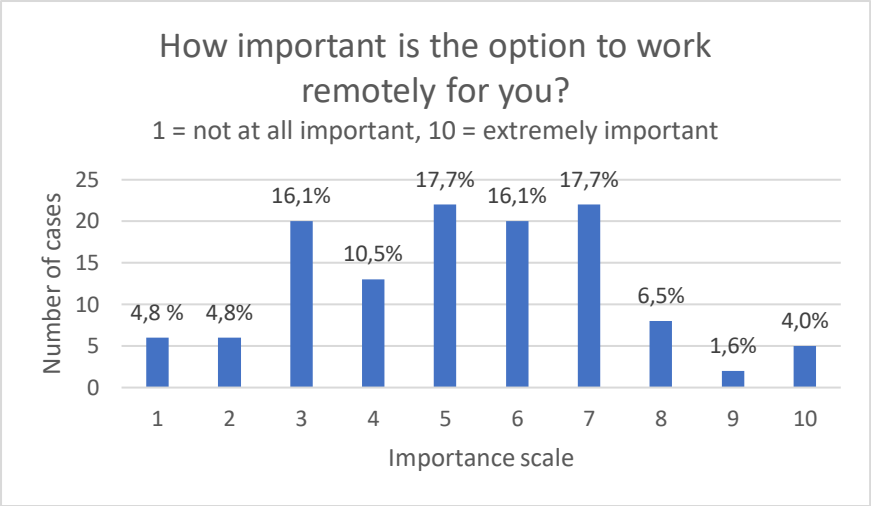

Figure 2: Importance of Remote Work. Source: Author

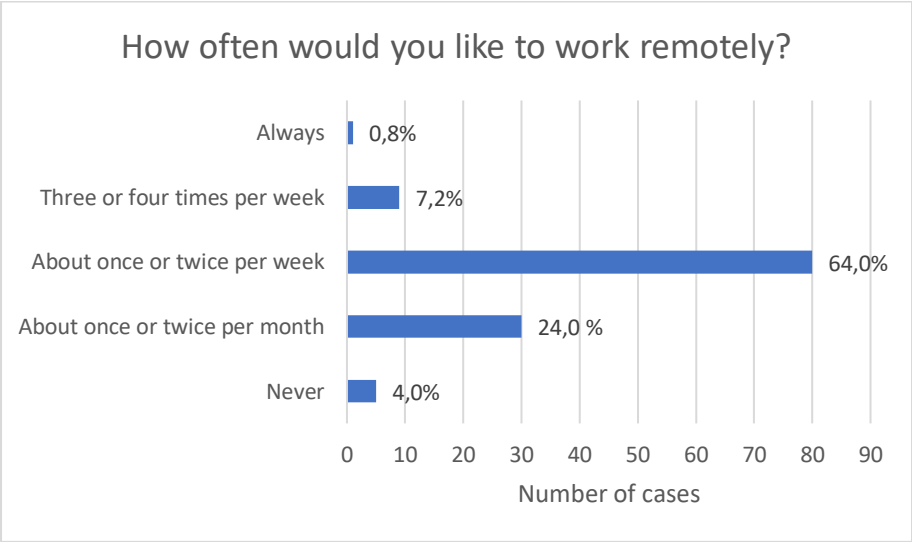

Figure 3: Remote Work Preference. Source: Author

The mean from all the respondents and their answers to how willing they are to change their residential location in the close future resulted in a mean of 7.4. Here, the mode even is the maximum score of 10. With this dataset, the previously explained statistical analysis step was conducted to answer the hypotheses and research questions.

After analyzing the multiple linear regression, several conclusions follow. The dependent variable, "likelihood of moving to a small town or rural area if remote work was possible," was tested against several independent variables for the test. Most importantly, this was the recorded variable "people with a preference for urban living". Furthermore, the other included ones were the descriptives like age, gender and family status (marriage and/or children). Moreover, last but not least, the binary variable that classifies peoples' jobs as part of the SSS or not has been added. The null hypothesis can

be rejected as the regression resulted in a significant result (<0.001). We can therefore state there is a linear relationship between young college graduates with a preference for urban living and their likelihood of living in rural areas even if they could work remotely. This result is in line with research from Schirmer et al. (2014) who state that proximity to central business districts and population-dense areas is important for young adults and single households.

The regression has an r-square value of 0.226. This means that around 22.6% of cases can be explained with this regression. However, the results make more sense when looking at the coefficients table. Both the values for age (0.097) and children (0.939) are insignificant.

This may partly explain why the value for the r square isn't higher. The target audience was defined as people in their twenties, so the age range is small. Therefore, the fact that this variable is not significant can also be explained. Gender did produce a significant result with a p-value of 0.006.

The binary variable that tested against the preference for urban living also produced a significant result of 0.011. Its t-value resulted in -2.575. The standardized coefficients beta, which is -0.213, supports this evidence of a significant negative correlation. These results are hardly unlikely and can be interpreted in the following way.

A negative t-value signifies that the independent variable negatively affects the dependent variable. This means that people who responded with a higher likelihood of moving to a small town or rural area if they could work remotely were also likely to generally not have a preference for urban living. This result confirms the first hypothesis.

More surprising, however, are the results for the job category variable. Here the results also returned a significant result (<0.001). As for the preference for urban living variables, the outcomes were negative again. In this case, the t-value is -3.67, and the standardized coefficients beta is -0.307. Once again, this means that if someone's (future) job can be considered as part of the SSS or "creative class", their likelihood of moving to a non-urban area, even if they could work remotely, decreases. This also works the other way around. What is worth pointing out is the fact that the results are more potent than for the preference for urban living. This will serve as an interesting foundation for discussion in the next part.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations		
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part
1	(Constant)	1,125	3,135		0,359	0,720			
	Age:	0,177	0,106	0,141	1,672	0,097	0,069	0,152	0,135
	Gender:	1,176	0,417	0,233	2,821	0,006	0,256	0,250	0,228
	Children	0,181	2,371	0,006	0,076	0,939	-0,017	0,007	0,006
	Preference Urban Living	-3,052	1,185	-0,213	-2,575	0,011	-0,217	-0,230	-0,208
	SSS	-1,577	0,429	-0,307	-3,672	<0,001	-0,359	-0,319	-0,296

a. Dependent Variable: On a scale of 1-10, how likely are you to move to a small town or a rural area if you could work remotely?

Figure 4: Regression Coefficients. Source: Author

We can conclude several things for the second test and its related hypothesis. Before going into the results for the correlation, the descriptive statistics are worth looking into. From all the 125 cases, the mean for the question "On a scale of 1-10, how likely are you to move to a small town (10,000-20,000 inhabitants) or a rural area (<10,000 inhabitants) if you could work remotely? 1 = not likely at all, 10 = extremely likely" was 3.5. For the question "What percentage increase in salary would motivate you to move to a small town (10.000-20.000 inhabitants) or a rural area (< 10.000 inhabitants) if you could work remotely?" the respondents could choose from the following categories: 1-10% (Label 1), 11-20% (Label 2), 21-30% (Label 3), 31-40% (Label 4) or "No amount of salary would motivate me to move to a small town or rural area" (Label 5). Here, the mean was 3,47. The largest group of 31.2% selected a 21%-30% salary increase. However, shortly followed by "No amount of salary would motivate me to move to a small town or rural area with 25.5% and 31%-40% salary increase which was chosen by 21.6%.

We can reject the null hypothesis because the p-value is lower than 0.05 (<0.001). Therefore, we can state that there is a correlation between financial incentives and young college graduates' decision to move to non-urban areas when remote work is available. The correlation between the two variables is a strongly negative one (-0.562). That the correlation turned out to be negative was to be expected. As an example, for this case, this means that as the likelihood of moving to a small town or rural area decreases, even if remote work is available, the required salary increases.

Correlations

		Likelihood of moving to a non-urban area if remote work is possible	Required salary increase in order to move to a non-urban area
Likelihood of moving to a non-urban area if remote work is possible	Pearson Correlation	1	-,562**
	Sig. (2-tailed)		0,000
	N	125	125
Required salary increase in order to move to a non-urban area	Pearson Correlation	-,562**	1
	Sig. (2-tailed)	0,000	
	N	125	125

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 5: Correlation Results. Source: Author

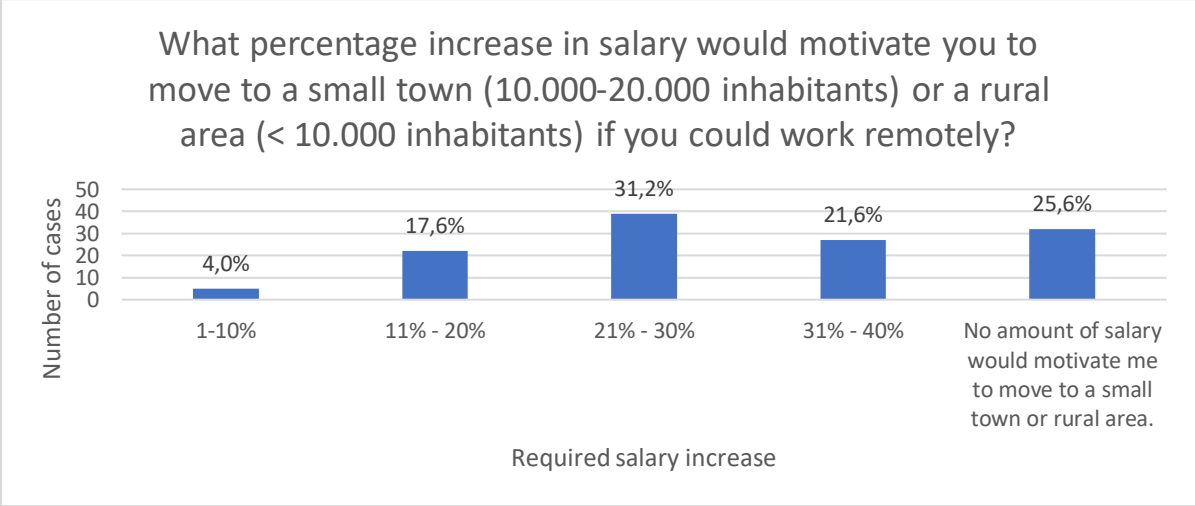

Figure 6: Financial Incentives. Source: Author

For the last hypothesis, two variables were used. The "likelihood of moving to a non-urban area if remote work is possible" variable that was introduced earlier and the categorization of the region that best describes the place where people grew up. As mentioned above, the mean for the likelihood is 3.5. The largest group of respondents (42.4%) grew up in large cities (>500.000 inhabitants). 17.6% selected the categories of rural areas (<10.000 inhabitants) as the category that best describes the place where they grew up. However, the difference to the remaining ones is not large. Mid-sized cities (100.000 – 500.000) were selected 16% of the time, small cities (20.000 – 100.000 inhabitants) in 13.6% of the cases and small towns (10.000 – 20.000) in 10.4%. While the p-value turned out to be significant (0.006%), the correlation between the two variables has to be considered weak (0.243).

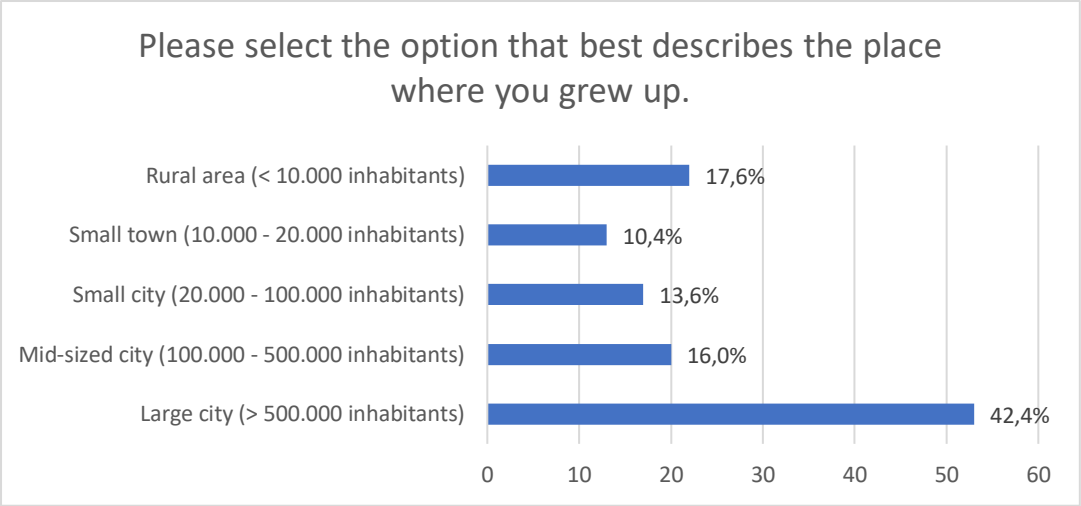

Figure 7: Place of Origin. Source: Author

Correlations

		Likelihood of moving to a non-urban area if remote work is possible	Place of origin.
Likelihood of moving to a non-urban area if remote work is possible	Pearson Correlation	1	,243**
	Sig. (2-tailed)		0,006
	N	125	125
Place of origin	Pearson Correlation	,243**	1
	Sig. (2-tailed)	0,006	
	N	125	125

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 8: Correlation Results 2. Source: Author

4.1 Interpretation

After analyzing the results of this study, the guiding research and sub-questions can be answered. The results show that young college graduates who express a preference for urban areas cannot be convinced to move to non-urban areas even if they could work remotely. Further, the data has shown that working remotely is not necessarily a convincing incentive, as the importance was rated with a mean of 5. This is the case even though 64% would like to work from home once or twice a week and therefore provide a mixed answer for the first sub-question. While the finding that young college graduates with a preference for urban living is important, the regression provided more surprising results. Seeing that the relationship between SSS workers, or people part of the so-called "creative class" and the likelihood of moving to non-urban areas is more influential than for the group that explicitly prefers urban areas is interesting. These findings reinforce Florida's (2005) findings that the "creative class" is inherently attracted to these areas that foster their creativity.

Based on the results, we can also answer the second sub-question "How do economic incentives affect the residential location choices of young college graduates?". We have seen in the results section that overall, there is a strong negative relationship between people's willingness to move to non-urban regions even if they could work remotely and the increase in salary that they would need. We can conclude from these results, that even if they could work remotely, people's preference for urban areas, or distaste against non-urban areas is quite strong.

The answer to the last sub-question "How does the place of origin impact the residential location choice" is less clear. While we still have found a significant result. The relationship between them does seem to be rather weak. This means that we should be careful when interpreting the importance of the place of origin on the residential location choice preference.

From the descriptive independent variables that were set out in the conceptual model, only gender seems to have a significant effect. While including age, having children and being married made sense, their results have not been significant. Therefore, not a lot of findings can derive be derived from them. For age, this may, as previously mentioned, be due to the fact that the age range is rather small (people in their twenties) and the difference in opinion therefore as well. Family status, or more specifically, having children or being married, does not add a lot of substance to the analysis. Here, the reason is most likely that the number of participants that responded yes to the question was simply too small.

Overall, all the results show that the influence of remote work on the residential location choice preference of young college graduates is rather small. It seems likely that the possibility to work from home is another technical innovation that reduces the importance of face-to-face human interaction but does not significantly impact human settlement behaviour.

5. Conclusion

The purpose of this study was to investigate the impact of technological innovations that reduce the importance of face-to-face human interaction on human settlement patterns. Specifically, we focused on young college graduates and their willingness to move to non-urban areas when remote work is available. By examining the preferences, job classifications, financial incentives, and origins of participants, this research aimed to provide insights into the factors influencing residential location choices in the context of evolving work arrangements. As the Covid-19 pandemic has, at times, forced a large share of workers to work from home, many people still do so. Because people with college degrees are more likely to be able to work from home, this research collected quantitative data from people in their twenties who will, or have, obtained a college degree. While the preferences of millennials have already been studied, this research focused on the generation of the current twenty-year-olds (Lee, 2018).

The results show that moving to a small town or rural area if remote work is possible is not an option for many people. This is especially the case for people who express a preference for urban living and people whose jobs can be classified as part of the SSS. These findings support the existing literature by Florida (2005) that creative people are inherently attracted to urban areas as they foster their creativity. Furthermore, the findings suggest that there is a strong negative correlation between people's willingness to move to non-urban areas even if they could work remotely and the required financial incentives that they would need to complete this move. The relationship between the willingness to move and the place of origin turned out to be small, however.

A weakness of this study is that the results cannot explain whether the low results for the willingness to move to non-urban areas are due to a strong preference for urban living or simply due to a strong distaste against rural areas and small towns. Further research could expand and clarify these findings. Clarifying age group differences within the context of this study holds significant importance. While our research focused on young college graduates in their twenties, it is essential to recognize that different age groups may exhibit distinct preferences, experiences, and family situations that could influence their willingness to move to non-urban areas. Expanding the investigation to include individuals with varying levels of work experience and different life stages would provide a more comprehensive understanding of how age factors into residential location choices. Older individuals who have been working for longer may have different considerations, such as established social networks, family commitments, and personal preferences that could shape their decision-making process. This could be investigated in further research. This research runs the risk of a selection bias. As the participants were recruited from the network of the researcher, the focus might have been too much oriented towards people who have already moved and are inclined to do so in the future.

By gaining a deeper understanding of the factors influencing the residential location choices of young college graduates in the context of evolving work arrangements, this study contributes to the ongoing discourse on residential location choices and their impact on regions and their development in the field of economic geography. It underscores the need for comprehensive analyses that consider multiple dimensions and highlights the complexities underlying the decisions individuals make when determining where to live in an increasingly interconnected and dynamic world.

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Appendix A:

Survey

Welcome to this research survey!

Thank you for your interest in this study. This survey is part of the bachelor´s thesis by David Martin, a student from the University of Groningen.
The aim of the research is to find out more about the residential location choices of young college graduates, and how these are influenced by the availability of remote work.

Therefore, this survey is aimed at people who will graduate from college/university in the next three years or have graduated in the past three years. Furthermore, participants should be in their 20´s.

The survey is completely anonymous and takes less than five minutes. The data collected will be used confidentially and only for educational purposes. Participation is voluntary. For further questions please contact d.m.martin@student.rug.nl.

Thank you for your participation!

Are you part of the target audience and do you wish to continue?
Yes/No

1. Introduction to the Survey
   Are you part of the target audience and do you wish to continue?
   Yes/No

2. How old are you?

   - Slider from 20 to 29

3. What gender do you identify as?
   Male, Female, Non-binary / third gender, Prefer not to say

4. Are you married?
   Yes/No

5. Do you have children?
   Yes/No

6. Have you graduate from college in the last three years or do you expect to graduate in the next three years?
   Yes/No
   End survey for No answers ”Thank you for filling out this questionnaire. As the questionnaire is intended for currently employed participants, it may not apply to you. We appreciate your cooperation and wish you a pleasant day.”

7. Select the category that best describes the occupation that you will/you are working in. For further clarification about the specific categories, please check the North American Industry Classification System.
   (https://en.wikipedia.org/wiki/North_American_Industry_Classification_System)

Agriculture, Forestry, Fishing and Hunting
Mining, Quarrying, and Oil and Gas Extraction
Utilities
Construction
Manufacturing
Wholesale Trade
Retail Trade
Transportation and Warehousing
Information
Finance and Insurance
Real Estate and Rental and Leasing
Professional, Scientific, and Technical Services
Management of Companies and Enterprises
Administrative and Support and Waste Management and Remediation Services
Educational Services
Health Care and Social Assistance
Arts, Entertainment, and Recreation
Accommodation and Food Services
Other Services (except Public Administration)
Public Administration

8. If you are not working yet: How likely do you think that you´ll be able to work remotely to some extent?
   1 = extremely unlikely, 10 = extremely likely

9. Please select the option that best describes the place where you grew up.
   Large city (> 500.000 inhabitants)
   Mid-sized city (100.000 - 500.000 inhabitants)
   Small city (20.000 - 100.000 inhabitants
   Small town (10.000 - 20.000 inhabitants)
   Rural areas (< 10.000 inhabitants)

10. How much did you enjoy living there?
    1 = Not at all, 10 = A lot

11. Have you ever moved to a different area?
    Yes/No

12. Do you currently live with a member of your family?
    Yes/No

13. How willing are you to change your residential location in the close future and move to another area?
    1 = Not at all, 10 = Completely

14. Assume that you have to change your residential location. What is the population size of the area that you would be most interested in moving to?

    Large city (> 500.000 inhabitants)
    Mid-sized city (100.000 - 500.000 inhabitants)
    Small city (20.000 - 100.000 inhabitants

Small town (10.000 - 20.000 inhabitants)
Rural areas (< 10.000 inhabitants)

15. On a scale of 1-10, how likely are you to move to a small town (10,000-20,000 inhabitants) or a rural area (<10,000 inhabitants) if you could work remotely?
    1 = Not likely at all 10 = Extremely likely

16. What percentage increase in salary would motivate you to move to a small town (10.000-20.000 inhabitants) or a rural area (< 10.000 inhabitants) if you could work remotely? [Ratio variable]
    1-10%
    11% - 20%
    21% - 30%
    31% - 40%
    No amount of salary would motivate me to move to a small town or rural area.

17. How important is the option to work remotely for you?
    1 = not at all important, 10 = extremely important

18. How often would you like to work remotely?
    Never
    About once or twice per month
    About once or twice per week
    Three or four times per week
    Always

19. Open question: Is there anything else that you would like to add?